

How do attitudes of habitual high-technology entrepreneurs to early-stage failure differ in Silicon Valley, Cambridge and Munich?

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This dissertation is submitted to the University of Cambridge
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Declaration

This dissertation is the result of my own work and includes nothing that is the outcome of collaboration except where specifically indicated in the text. No part of this dissertation has been submitted for any other qualification.

This dissertation consists of approximately 65,000 words with 21 figures and 16 tables. It complies with the regulations of the University of Cambridge.

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Publications

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ABSTRACT

Entrepreneurs develop new technology ventures in uncertain conditions with unproven technologies and limited resources. The majority of such ventures fail, yet entrepreneurship is regarded as a national (and regional) engine for economic growth. This thesis aims to examine entrepreneurs' attitudes to failure in order to reveal insight on how entrepreneurs learn and how they identify subsequent opportunities, and investigate possible regional differences in such attitudes and entrepreneurial responses.

There is much literature on entrepreneurial failure but relatively little that is focused on *attitudes* to failure, the high-technology industry, or international comparisons. This thesis examines how entrepreneurs' attitudes to failure in early-stage technology companies differ in the USA (Silicon Valley), UK (Cambridge) and Germany (Munich), and implications for entrepreneurial learning and opportunity identification in these regions. Interviews with habitual entrepreneurs explore their experiences of failed ventures, using a methodology from qualitative psychology - Interpretative Phenomenological Analysis (IPA) - for the gathering and analysis of data to reveal emergent trends. This analysis is then used to compare attitudes to failure within and between each region, and a preliminary conceptual framework is proposed for analyzing future experiences of entrepreneurial failure.

Findings from this idiographic study suggest that although each entrepreneur's experience of and attitudes to failure is unique, there are more commonalities than differences between regions. Furthermore, these findings reveal the importance of the use of language and narrative in the analysis of such accounts. In addition, the results allow reflection on the appropriateness and limitations of methodologies such as IPA for this subject.

This thesis contributes to theory by examining 'effectuation' as a way to understand these experiences, and discussing the impact of findings in relation to attribution theory, prospect theory and real-options theory. This thesis contributes to practice by augmenting existing knowledge of entrepreneurial failure through the comparative (regional) approach and the

industry-specific (high-technology) focus. It may also improve the preparedness of new practitioners and entrepreneurs, with positive implications for future entrepreneurial success.

CHAPTER 1: INTRODUCTION

Most new technology ventures end in failure: between fifty and ninety per cent of new technology ventures fail (Bhidé 1992; Kirchoff 1997; Stokes and Blackburn 2001; Delmar and Shane 2003; Knott and Posen 2005; McKenzie and Sud 2008; Gulst and Maritz 2009; Lerner 2009; Pretorius 2009; Timmons and Spinelli 2009). Many more business plans receive no funding and therefore fail before they begin (Lerner 2009). Entrepreneurs start firms with the knowledge that statistically, most will fail. Do they fully appreciate the likelihood of success when they begin? What do they learn from ventures that do not succeed? What can be learnt collectively from the majority of startups that end in failure?

Entrepreneurship appears vital for economic growth, especially in technology-related industries. Baumol suggests: “the role of entrepreneurs and their new small enterprises, ... are more important than ever, and ... their significance seems unlikely to evaporate in the foreseeable future.” (Baumol 2004: 316). Yet based on failure rates, seeing a venture fail may be a common experience for entrepreneurs. An examination of this phenomenon may therefore provide insight into how founders behave and react: how they learn, recover and respond. Failed ventures may represent an untapped pool of practice and learning, offering valuable lessons for entrepreneurs, their staff, investors, suppliers and customers.

There may also be a regional context to failure. Levels of entrepreneurship vary between countries and this has been widely studied by longitudinal research projects such as the Global Entrepreneurship Monitor or GEM (Bosma, Acs et al. 2008; Brixy, Hundt et al. 2010; Ali, Brush et al. 2011; Kelley, Bosma et al. 2011) and more recently the Global Entrepreneurship and Development Index, or GEDI (Autio, Cleevely et al. 2012). These studies provide rankings of entrepreneurial standing for a number of countries, for example GEDI research for 2010 indicates the USA ranks first in entrepreneurial profile including attitudes, aspirations and activities, Britain is 15th, ahead of Germany (Autio, Cleevely et al. 2012: 5). The GEDI research includes a survey variable for ‘fear of failure’ but does not address detailed attitudes and outcomes related to failed ventures and the entrepreneurs that start them. Furthermore, these are

general entrepreneurship studies and there is a significant difference between founders of small local service businesses and scalable new ventures in a field such as high-technology.

While survey-based international research enhances our understanding of entrepreneurship, there are limitations to how this helps study the causes, experience and consequences of failure. There is some support for new approaches to this: reviewing the landscape of possibilities in the next wave of entrepreneurship research, Wright and Zahra suggest they should consider two trends: “[1] developing and using richer indicators of entrepreneurial activities, [and] [2] engaging more fully with the context when studying entrepreneurship.” (Wright and Zahra 2011). Approaches that investigate this context of entrepreneurs’ experience might address social and economic factors that inspire new entrepreneurs, or psychological examination of entrepreneurs’ personality traits and behaviours. Such context-based approaches may alternatively simply listen to the undiluted experience and reflections of the entrepreneur regarding the failure of an early-stage venture and interpret these reflections to identify what these experiences *mean to the entrepreneur*. Such an approach may offer a promising source of future insight. The late Jason Cope understood this, reflecting on his own phenomenological work: “If learning from failure is indeed a journey then further research is required to understand what this journey entails, what stages are involved and what obstacles may line the way.” (Cope 2011).

Technology startup companies often provide a complete set of company experience in a compressed time with a small group of actors. Most technology companies share common experiences: the development of product, validation and communication with markets, sales and ongoing support and service to customers, management of people and partners, and all the legal and financial activities needed to manage a corporate entity (Evans and Bahrami 1995). Startups also experience these activities, but they are often compressed: rapid startup timelines means tasks are done in parallel and faster, product development and customer interaction are often meshed together, especially in technology companies (Baron, Hannan et al. 1998). The intensity of these experiences is often due to the concentration of workload among a small number of founders (possibly just one). Many of these activities are driven by passion and invention (Cardon, Gregoire et al. 2012). When startups fail, this same concentration of many activities in the hands of few people may concentrate the pain as well as the opportunity to learn. Issues such

as these provided a rationale for focusing research onto an examination of early-stage high-technology companies.

This study will focus on ‘habitual’ entrepreneurs (Gulst and Maritz 2009) in multiple technology sectors (software and media, semiconductors and computer infrastructure) and compare their attitudes to setback and failure in three geographic areas: Silicon Valley (California, USA), Cambridge (United Kingdom) and Munich (Germany). The broad research question this research seeks to address is:

How do attitudes of habitual high-technology entrepreneurs to early-stage failure differ in Silicon Valley, Cambridge and Munich?

There is much literature on entrepreneurship, and major themes have emerged regarding the characteristics, motivation and behaviour of entrepreneurs. These themes are outlined in major works ranging from Schumpeter and Kirzner on economic opportunity (Schumpeter 1989; Kirzner 1997), to general theories of entrepreneurship such as the individual-opportunity nexus (Shane 2003) and Sarasvathy’s work on Effectuation (Sarasvathy 2008). If failure rates are indeed so high, then failure is a frequent and therefore important aspect of the entrepreneurial experience: “It is impossible to talk intelligently about a theory of entrepreneurship without acknowledging the pivotal role of failure.” (Cardon and McGrath 1999).

Research Focus

This researcher is drawn to the research question above by his personal experience of having built both successful and failed technology ventures. This has advantages and drawbacks: while experience in many regions (including Munich, Cambridge and Silicon Valley) provides contacts and networks to identify suitable interviewees and offers a broad context for this research, there may be various types of personal bias. In this thesis, I attempt to explicitly recognize potential areas of personal bias, and discuss and implement counter-strategies to address them.

From the broad intention to study ‘entrepreneurial failure’ the focus shifts to asking interrelated questions: what should be done, and where and how should these studies take place?

Several terms in this question require further definition. The ‘high-technology’ sector was selected because of the researcher’s prior industry experience and network; the industry’s large and pervasive impact on the wider economy; and the speed at which early-stage companies have grown (Google, Cisco, Apple) and often failed. The sector is also rich in invention (as indicated by the high levels of generation of Intellectual Property or IP) and innovation. It is possible that the researcher’s ‘confirmation bias’ exists here, but this may be offset by the prospect of direct access to people and companies with which academic research can be conducted.

A further definition of ‘failure’ is required. For this research, failure represents the termination of a business (see Chapter 2). Other subjective definitions may include ‘disappointing successes’ (interviewee D4) and ‘successful failure’ (B1), but as a pre-condition, at least one of our entrepreneurs’ ventures must have ceased trading at some point.

Also, ‘habitual’ entrepreneurs may be serial or portfolio founders (Gulst and Maritz 2009), but all have multiple experiences upon which to reflect, and are likely to have sought new opportunities after (at least) one failed venture. There are various permutations of experience to consider such as failure followed by success (‘F-S’) or success followed by failure (‘S-F’), and other combinations. Interviewee A5 has experienced five failed ventures (‘F-F-F-F-F’). In this research focus, participants qualify if they have started multiple ventures, one of which has failed.

The locus of research is three technology-rich regions that were accessible to the researcher. These were chosen to extend prior research that had examined only one or two regions (Cope and Cave 2008; McKenzie and Sud 2008), and Munich, Cambridge and Silicon Valley were selected after exploratory work confirmed that suitable candidates could be found in these locations.

The question of how to conduct the research was answered after reflection on extant literature and exploratory interviews. This revealed that failure presents itself as a personal and painful experience and care is required to determine how to approach the subject. It also suggested there are many variables in the failure process – complex reasons and emotions, inter-personal conflict, and loss of control that is difficult to manage and hard to understand. This environment

makes it difficult to pre-define a set path for research: with such variety of experience and so many combinations of factors, how could a survey, interview guide or case study approach address the richness of the situation? These questions led to a phenomenological approach, one that starts with an understanding of the 'lived world' of entrepreneurs experiencing failure, and interprets the meaning emerging from such encounters.

Overall, the research focus is derived from asking three questions – what, where and how? It is hoped that this uncovers hitherto unobserved themes and helps further understand the phenomenon of entrepreneurial failure.

Structure of Thesis

Chapter	Title	Contents
1	Introduction	Introduction of research topic; motivation and goals for research; research objectives and questions; review of preliminary findings; preliminary conceptual framework.
2	Literature Review	Review of academic literature on entrepreneurial failure.
3	Methodology	Review of potential methodologies and related literature; selection and justification of IPA (Interpretative Phenomenological Analysis).
4	Research Design and Plan	Research questions and approach; research design for planning, data gathering and analysis.
5A	Analysis: Munich, Germany	IPA analysis of six transcribed interviews in Munich including enfolding literature.
5B	Analysis: Cambridge, UK	IPA analysis of six transcribed interviews in Cambridge including enfolding literature.
5C	Analysis: Silicon Valley, USA	IPA analysis of six transcribed interviews in Silicon Valley including enfolding literature.
6	Analysis: Cross-country	Analysis of regional commonalities and differences; discussion of the impact of national culture.
7	Discussion	Discussion of findings; discussion of research limitations; impact on academic theory and practice; possibilities for further research.
8	Conclusion	Conclusion and assessment of research findings against original goals; acknowledgements.
	References	References to academic literature.

Table 1. Contents of Doctoral Thesis

Exploratory Interviews and Development of Initial Conceptual Framework

This thesis represents the results and conclusions from research carried out over a period of three years. In the first year, two activities were planned and performed: (1) Exploratory interviews in Munich, Cambridge and Silicon Valley and (2) a preliminary literature review. These activities were documented in a First Year Report, which also included the development of a Conceptual Framework outlining how entrepreneurial failure might be examined in future cases.

Ten exploratory interviews with experienced technology entrepreneurs were planned and conducted in early 2010. Each interview consisted of an in-person meeting lasting about an hour, which was recorded and transcribed. Candidates were contacted directly or indirectly (by referral) from a network of personal contacts by the researcher established over a 25-year career in the technology industry. Interviewees were selected based on having experience of failed ventures as founders or investors, with a view to gathering insight and guiding the formal research design. These interviewees can be regarded as ‘habitual entrepreneurs’ (Gulst and Maritz 2009) who founded early-stage technology firms.

Exploratory interviews were transcribed and subject to textual analysis to derive themes, and an impressionistic pass through all transcripts was performed to identify major issues and concerns from the interviews. General conclusions from these initial interviews are summarized in Table 2 below.

	Conclusion from Exploratory Interviews
1	Attitudes of entrepreneurs to setback and failure do appear to differ in the countries examined. Germany appears to be radically different from the UK and USA in this regard.
2	Setback and failure, and responses to them, are regarded and valued as an important aspect of the entrepreneurial experience.
3	The emotional intensity of failure provides an unusual stimulus for reflection and knowledge acquisition.

Table 2. Summary of Conclusions from Analysis of Ten Exploratory Interviews Conducted in 2010

In addition to these exploratory interviews, a preliminary literature review identified a landscape of academic research with many themes and sub-domains, clustered around a number of major themes as documented in Figure 1. This figure was developed using manual cross-referencing of themes identified from reading the literature and searching EndNote, in which the researcher has indexed all references.

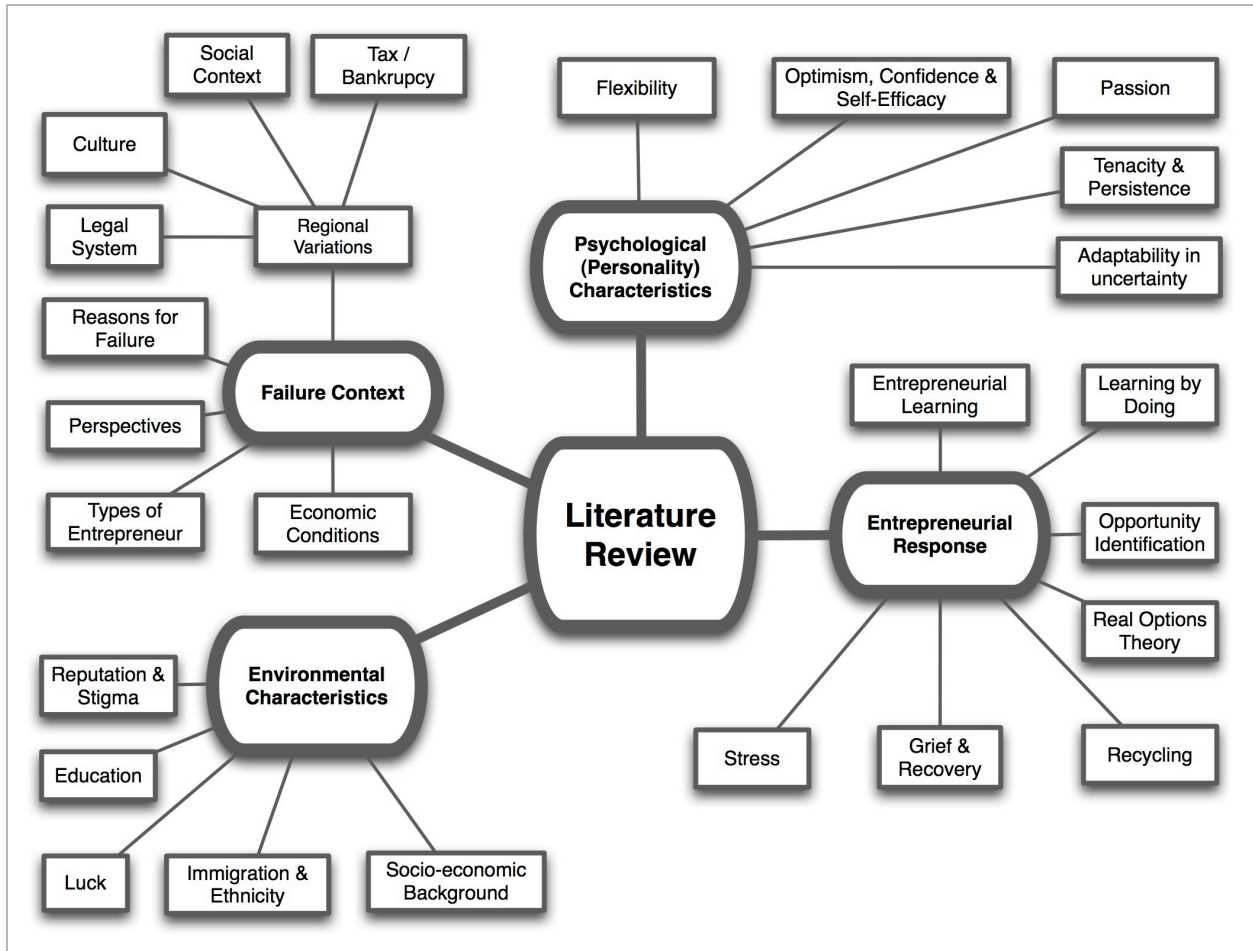


Figure 1. Schematic of Themes Identified in the Field of Entrepreneurial Failure in Preliminary Literature Review (by Author, 2010)

Based on these exploratory interviews and literature review, a (preliminary) conceptual framework was developed - see Figure 2. At this stage, the framework was an attempt to establish a consistent way of examining the experience of entrepreneurial failure, in order to accelerate understanding and awareness of what might happen next (the ‘entrepreneurial response’). Briefly, the conceptual framework provides a lifecycle for analysis of venture failure. It starts with (A) the failure event, followed by analysis of this event in context (B). Environmental factors such as the background of the entrepreneurs (C) are considered alongside their personality characteristics (D). Based on this examination the entrepreneur may decide

what to do next (E): whether to exit the direct entrepreneurship domain and seek employment at a larger firm or adopt an alternative career (F) or re-engage and start another venture (G).

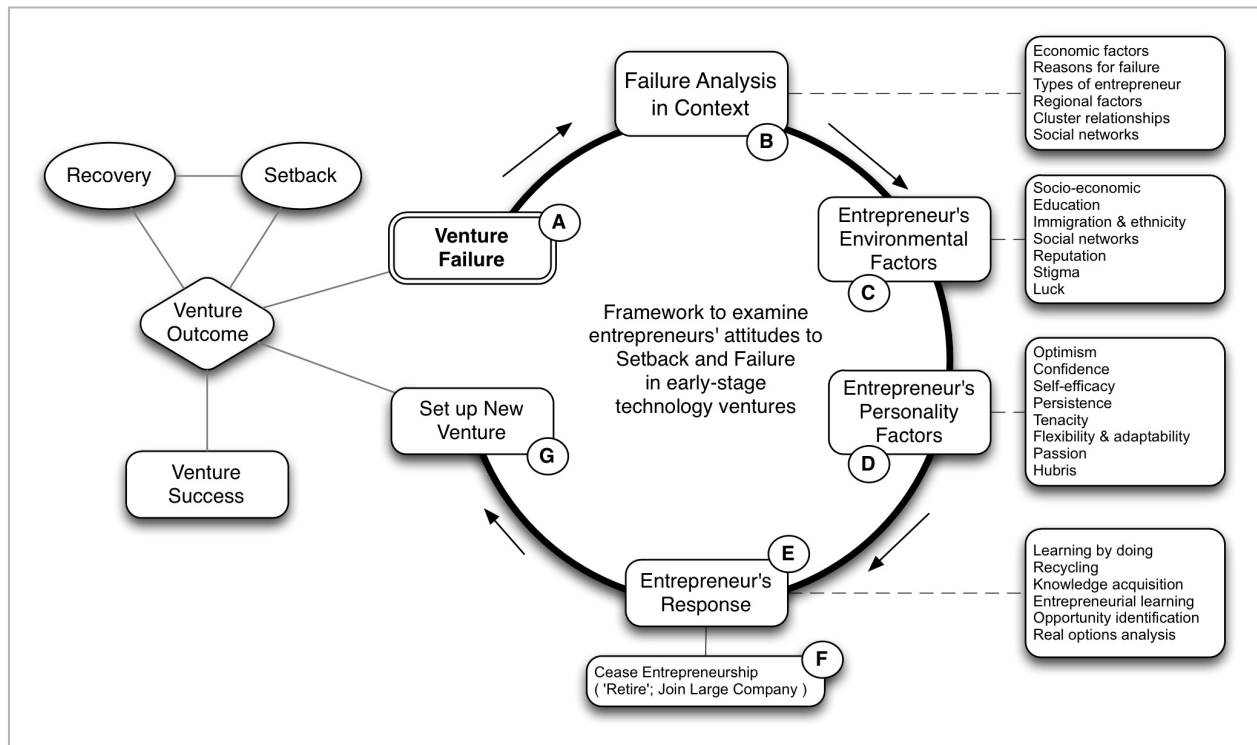


Figure 2. Proposed Preliminary Framework for Examining Entrepreneurs' Attitudes to Setback and Failure in Early-Stage Technology Ventures (by Author, 2010)

To develop this framework, transcripts of each interview were analyzed and major themes arising from each meeting were highlighted. These were listed, evaluated and sorted into categories, and combined with the major literature themes outlined in Figure 1 (Failure Context; Environmental Factors; Personality Factors; Entrepreneurial Response). It is hoped that the conceptual framework in Figure 2 might offer opportunities both to practitioners (entrepreneurs whose recent venture has failed) and academics to assess new instances of the failure experience. This framework establishes a reference model for further examination, and it will be re-examined in Chapter 7 in light of detailed research findings. It was not used to derive the detailed research design, but is being held for later review. In the spirit of Engaged Scholarship (Ven 2007), the conceptual framework has been presented and discussed at several conferences (Cotterill 2011a;

Cotterill 2011b; Cotterill 2011c) where feedback from fellow academics was obtained. The proposed value of this framework is twofold. At a micro level, an improved understanding of how entrepreneurs take their 're-entry' decisions (Jenkins and Brundin 2009; Nielsen and Sarasvathy 2012) may be desirable; and at a macro level, the level of re-engagement by entrepreneurs in future startup activity (or 'flexible re-cycling') may be seen to improve the health of the wider economy (Evans and Bahrami 1995; Evans and Bahrami 2011). If it is true that much learning can be derived from failed ventures and start-ups represent a strong source of economic growth, then it may be desirable for a national economy to 're-cycle' entrepreneurs and technologies and keep the cycle of economic re-generation turning. Entrepreneurs who fail and give up, thereby leaving the system, may represent a loss to the economy. Understanding and supporting entrepreneurs to help them evaluate their failure might encourage their re-entry to the world of startups.

CHAPTER 2: LITERATURE REVIEW

This section (1) reviews the theoretical background and prior literature in entrepreneurial failure; (2) reviews a range of five major themes in the literature; and (3) provides a summary of research gaps and key conclusions.

Prior Work: Theoretical Background and Literature Review

There is much literature on entrepreneurial failure (Cardon and McGrath 1999; McGrath 1999; Zacharakis, Meyer et al. 1999; Shepherd 2003; Holland 2008; Gulst and Maritz 2009; Pretorius 2009) but relatively little that is focused on attitudes to failure (Cope and Cave 2008; McKenzie and Sud 2008), the high-technology industry, or international comparisons. The annual Global Entrepreneurship Monitor (GEM) captures and ranks regional attitudes to ‘fear of failure’, yet the GEM model and ensuing reports make scant reference to venture failure in particular or responses to failure (Ali, Brush et al. 2011: Figure 3, Page 10).

Within the broad scope of entrepreneurial behaviour and motivation (Hindle 2010), this thesis addresses the following research question:

How do attitudes of habitual high-technology entrepreneurs to early-stage failure differ in Silicon Valley, Cambridge and Munich?

One of the challenges in addressing this question is the focus of literature. Figure 3 outlines four main fields of research: entrepreneurship, failure, national (and comparative) studies, and the high-technology sector. These areas (and Figure 3 specifically) were created by taking reading notes, including searches of this researcher’s EndNote library, and mapping out themes and domains using whiteboards and Post-it® notes, before formalizing this into the ‘literature map’ below. Many publications address one of these areas or a combination of two or three, but there is little that maps directly onto our focus of research. For example, in a search of webofknowledge.com, there are 13,527 references to ‘entrepreneurship’ but only 22 to

‘entrepreneurial failure’ (September 2012). Pioneering work by the late Jason Cope applied methodologies derived from qualitative psychology to investigate attitudes to failure amongst US and UK technology entrepreneurs with recent experience of failed ventures (Cope 2011): this maps closely to our focus but it remains a rare example of highly relevant literature.

It is important therefore to glean insight from related studies and themes in the academic literature (highlighted in Figure 3) while concentrating on the core topic of comparing attitudes of entrepreneurs to failure in high-technology ventures. Some themes arising from this literature review must be placed in context of this core topic. For example, studies on women entrepreneurs (Garcia-Tabuenca, Crespo-Espert et al. 2011; Shinnar, Giacomini et al. 2012), and many studies involving empirical research on students (Cardon and McGrath 1999; Mueller and Thomas 2001; Bagheri and Pihie 2010; Gasse and Tremblay 2011; Gelard and Saleh 2011; Aghajani and Abbasgholipour 2012) contribute to entrepreneurship literature but do not directly address the topic of failure. Similarly, biographical attributes such as age, gender, marital status, social status, education and experience may have an important role to play in the ‘entrepreneurial spirit’ (Aghajani and Abbasgholipour 2012), but may not directly impact our study of attitudes to failure. Other studies on firm-level failure (Gong, Baker et al. 2009) and project failure (Shepherd and Cardon 2009; Shepherd and Kuratko 2009; Valikangas, Hoegl et al. 2009; Shepherd, Patzelt et al. 2011), however compelling, may overlap with the experience and attitudes of entrepreneurs as a whole but do not address the *individual entrepreneur*, which is our ‘unit of analysis’ for this thesis.

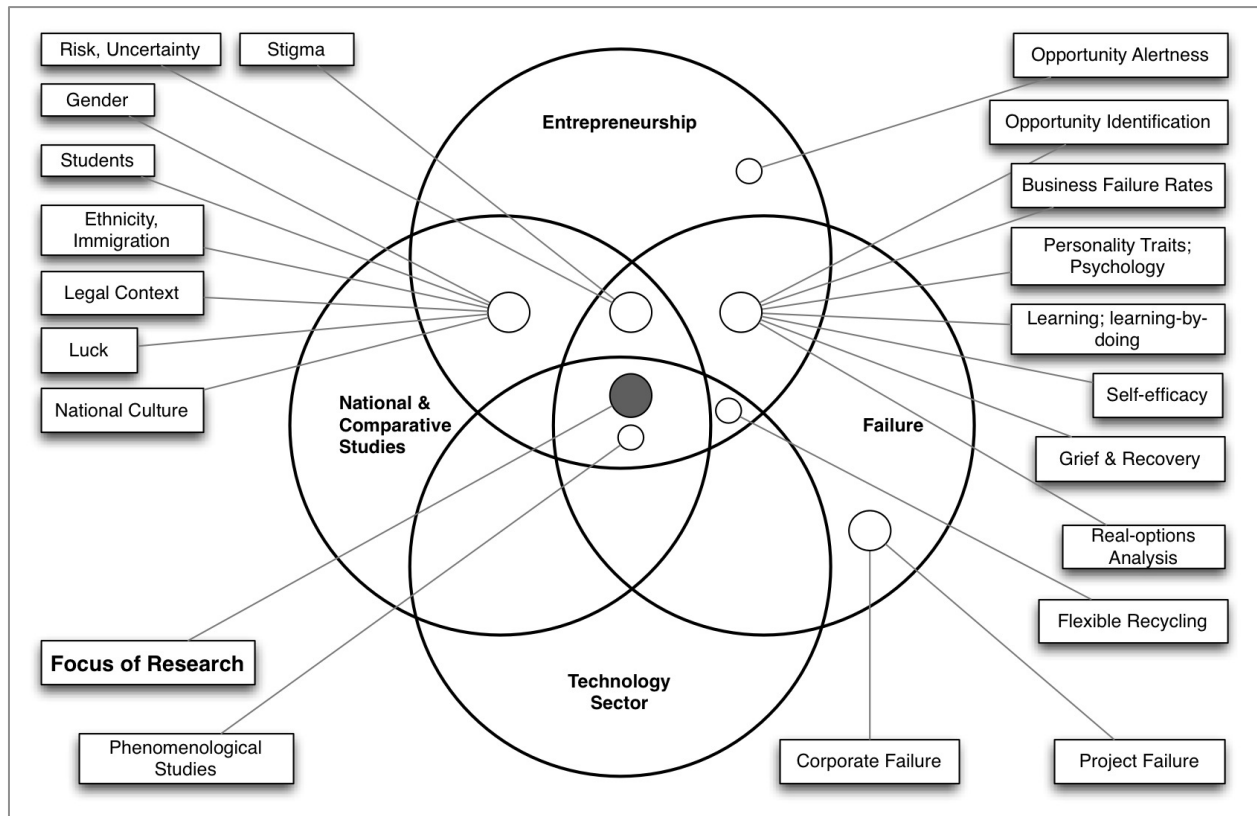


Figure 3. Literature Review. Map of Various Domains in Entrepreneurial Research Juxtaposed with Themes Identified in Literature Review

A further challenge to answering the research question is obtaining access to failed entrepreneurs. “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’” (Saravathy and Menon 2002: 7). Furthermore, reliability of data has limitations: “We have an instinctive tendency to deny, distort, ignore, or disassociate ourselves from our own failures” (Cannon and Edmonson 2004: 7). McKenzie and Sud highlight the potential inadequacy of quantitative research methods to deal with this (McKenzie and Sud 2008: 124) and propose examining personal stories told by entrepreneurs about their failed ventures. When dealing with ‘attitudes’ to failure, it must be remembered that entrepreneurs may have to withhold the truth and ‘tell stories’ to survive – to delay creditors, boost employee morale and assuage investors. Furthermore, failure may be preceded by a struggle for survival, fraught with emotion and lack of clarity: it is not just the final closure of a business but the long decline into closure that is of

interest. Accordingly, in common with prior research (Cope 2005; Cope and Cave 2008; McKenzie and Sud 2008; Cope 2011), a qualitative approach has been adopted to study this complex and sometimes contradictory behaviour.

This literature review covers major themes arising from research into entrepreneurial failure. From an initial literature review illustrated in Figure 1, these include (1) the context of failure as a business event; (2) environmental factors affecting the entrepreneur's background; (3) personality traits and psychological makeup of the entrepreneur, and (4) factors leading to how entrepreneurs respond. The detailed literature review revealed the importance of overlapping areas that impact the study of entrepreneurial failure in various ways: this is illustrated in Figure 3. As a result, (5) a comparison of national studies is provided, including literature regarding the USA, UK and Germany (see Table 3).

Failure Analysis in Context

'Failure' and failure rates have been researched in many ways: there is much literature on the context and reasons for failed ventures yet 'failure' remains hard to define. It may be objective, defined in terms of bankruptcy or dissolution (Warren and Westbrook 1999; Thornhill and Amit 2003; Ooghe and De Prijcker 2008; Primo and Green 2011); or subjective, based on interpretation of outcome versus objectives (McKenzie and Sud 2008). Cope is drawn to the definition of failure as "the termination of a business that has fallen short of its goals" (McGrath 1999; Politis and Gabrielsson 2009; Cope 2011).

Business failure appears to be commonplace and "most new businesses do not survive beyond three or four years" (Kelley, Bosma et al. 2011). In addition to high failure rates in new ventures (50 – 90%), a larger number of venture plans never make it to incorporation (Bhidé 1992): perhaps only 0.5% – 1.0% of business plans submitted to Venture Capital firms are funded (Lerner 2009). Some authors have questioned data sources and biases in the computation of survival rates (Yang and Aldrich 2012), and there may be a complicating distinction between "entrepreneur failure" and "business-venture failure" (Gulst and Maritz 2009; Read, Sarasvathy et al. 2011: 64), but the consensus appears to be that (at least) the majority of new ventures fail. Most studies of entrepreneurial failure address US startups and although there are some non-US

and cross-country comparisons, this study hopes to contribute to the academic literature by expanding the scope of such review and comparison to include additional regions.

If we wish to predict and prevent failure, then frameworks for analyzing business failure are valuable. Pretorius highlights four causes (Pretorius 2008): human; business factors (internal or external); structural; and financial. Others propose three: personal characteristics; managerial deficiencies; and financial shortcomings (Larson and Clute 1979). To these factors, the “liability of newness” and the “liability of smallness” may be added (Zacharakis, Meyer et al. 1999). Garnsey, building on the work of Edith Penrose (Penrose 1995), outlines five areas of interest: patterns of survival, continuousness of growth, turning points, reversals and cumulative growth. (Garnsey, Stam et al. 2006: 18).

As early advocates of the flexible re-cycling concept in Silicon Valley, Evans and Bahrami offer an alternative view (Evans and Bahrami 1995: 62). They argue that ‘permanence’ as a business goal does not fit comfortably in Silicon Valley. When venture failure rates are high, the “flexible re-cycling” culture enables new ventures and re-purposed components to thrive. In light of this natural cycle, DeTienne provides insight into various definitions and meanings of the business exit as part of this renewal process (DeTienne 2010).

Environmental Factors

Environment may affect how entrepreneurs regard failure, introducing issues of immigration, education and socio-economic background, as well as reputation, stigma and luck.

‘Environment’ may be defined in multiple ways, including a loose collection of economic, geographical and social factors, as well as an eco-system, bringing together education, immigration, financial, human and technical resources (Evans and Bahrami 1995). Alternatively the environment may be viewed in terms of a regional economic ‘cluster’ (Sternberg and Litzemberger 2004; Garnsey and Heffernan 2005; Herriot and Minshall 2006).

Immigration and ethnicity are significant factors in Silicon Valley: Bhidé states that 60% of founding teams studied included immigrants among their members (Bhidé 2008) and Saxenian highlights the contribution of immigrants to the technology sector between 1980 and 1998 (Wadhwa, Saxenian et al. 2007). Hart offers a balanced view of how failure is regarded by

immigrants: they may have less to lose, but also find it more difficult to re-enter the job market when they do (Hart, Acs et al. 2009: 124). Others argue that ethnicity, family background, education, age and experience may determine why people become entrepreneurs in the first place (Roberts 1991), and potentially impact why they fail.

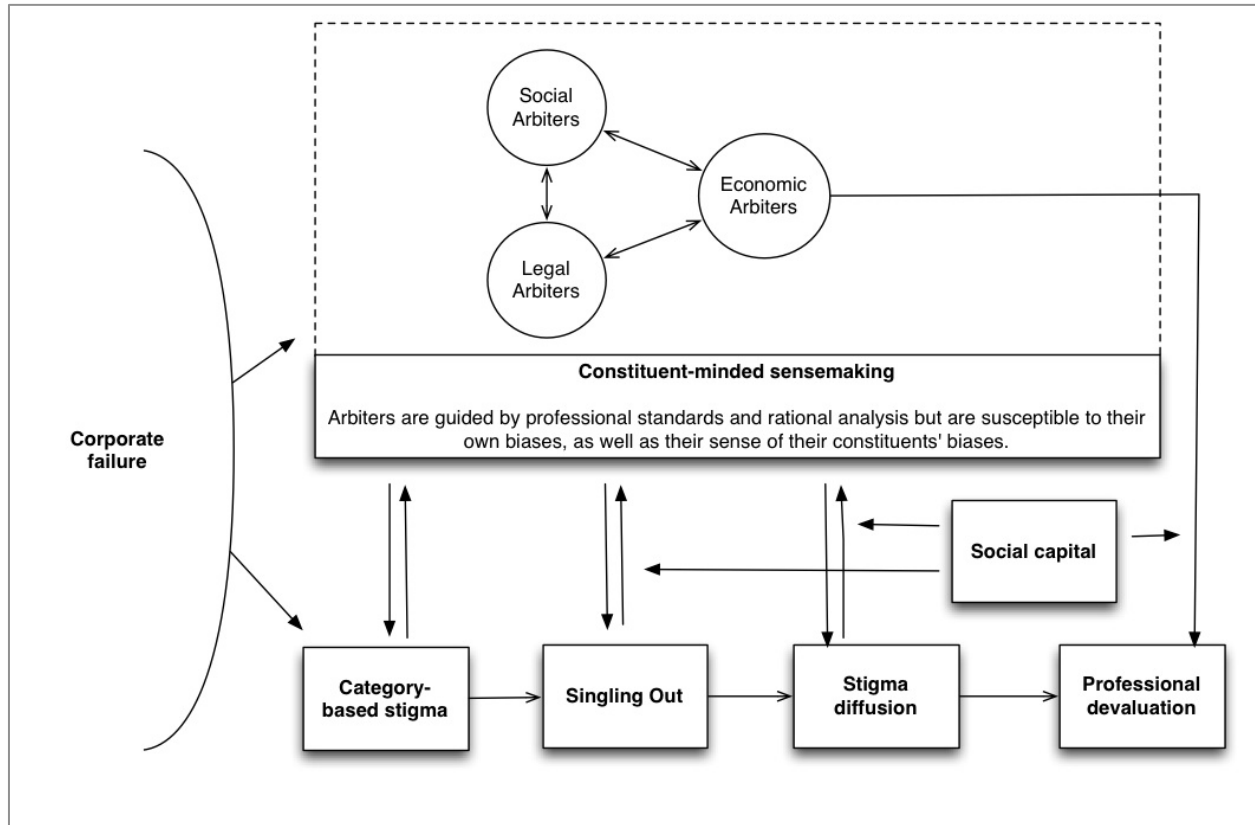


Figure 4. Model for Development and Diffusion of Stigma Arising from Failure (Wiesenfeld, Wurthmann et al. 2008)

Stigma and the issue of personal reputation are also important considerations. “Entrepreneurial activity varies substantially across regions and sectors and appears to be related to the stigma of failure.” (Landier 2005: 1). The impact of culture upon entrepreneurs introduces ‘dimensions’ such as individualism-collectivism (Hofstede, Hofstede et al. 2010), leading some authors to study the resulting effect on stigma: “collectivistic societies are generally understood to be less forgiving and more stigmatizing of failure and thus not conducive for entrepreneurial risk taking” (Damaraju, Barney et al. 2010). Wiesenfeld et al. go further in their model for stigma

(see Figure 4): “Stigma, ... is the denigration or stain the person experiences, which negatively impacts his or her image and reputation” (Wiesenfeld, Wurthmann et al. 2008). The personal cost of failure is tragically demonstrated for example by the suicide of Ilya Zhitomirskiy, co-founder of Diaspora: “failure is one thing when you have a track record of success and a wide network of contacts; its quite another when you’re 22, just out of college, far from your family and friends, and completely green” (Hasbun 2012).

We are often compelled by the public spectacle of failure and the stigma associated with those affected. The intensity of stigma has been discussed in high-technology ventures (Sutton and Callahan 1987) and as a self-reinforcing phenomenon: “stigma is posited to lead to a vicious cycle of inferiority” (Damaraju, Barney et al. 2010). It may also have impact on subsequent ventures and the “reentry career choices of stigmatized entrepreneurs” (Simmons and Wiklund 2011). The national legal and commercial environment may also affect the importance of stigma for failed entrepreneurs. A region with entrepreneur-unfriendly bankruptcy laws where liability can endure for up to thirty years may discourage startups, while the opposite may support increased risk taking by encouraging more new firms (Seung-Hyun, Peng et al. 2007: 261).

Perhaps there is a useful distinction here between ‘business-venture failure’ due to events and circumstances beyond the control of founders, and ‘entrepreneur failure’, attributable directly to poor individual entrepreneurial performance (Gulst and Maritz 2009; Read, Sarasvathy et al. 2011). “In Silicon Valley, there is no stigma attached to honest failure It is immeasurably better to try something risky and to fail, rather than to wonder about what might have been.” (Evans and Bahrami 1995: 73). ‘Honest failure’ of course might imply the existence of ‘dishonest failure’.

Luck is also part of the entrepreneurial experience. Liu indicates that “people tend to over-attribute their own successes to superior skill but failures to bad luck” (Liu 2010: 3), revealing an asymmetry between how entrepreneurs view themselves versus the rest of the world (Miller and Ross 1975). In other research, 81% of entrepreneurs believed they had a 70% chance of success, with the remainder anticipating a 100% chance of success (Cooper, Woo et al. 1988).

Entrepreneurial Personality Factors

Personality traits and entrepreneurial characteristics figure prominently in the literature on entrepreneurship (Gartner and Shane 1995; Lee 1997; Gürol and Atsan 2006; Pavlovich and Corner 2006). Particular attributes include confidence, optimism, passion, self-efficacy and persistence. Some authors have suggested: “individuals with different personality traits experience success similarly, however [they] have very different reactions to failure” (Cardon and McGrath 1999).

Perhaps the most important attribute studied in recent years is self-efficacy, particularly in work directed by Sarasvathy (Sarasvathy 2001; Read and Sarasvathy 2005; Sarasvathy 2008; Dew, Sarasvathy et al. 2009; Read, Sarasvathy et al. 2011; Sarasvathy and Venkataraman 2011).

“Extensive research supports the notion that individuals who believe in their own skills (*entrepreneurial self-efficacy*) and who are willing to accept risk (*no fear of failure*) are more likely to be both interested in and to succeed in becoming entrepreneurs” (Estrin, Mickiewicz et al. 2011: 8). However, there may be a contradiction between the desirability of self-efficacy and the negative consequences of overconfidence (Cardon, Wincent et al. 2009). Entrepreneurs need sufficient confidence and self-efficacy to start and manage a new venture, but not too much (Trevelyan 2007). Indeed, ‘effectuation’ may represent a broader way of describing how entrepreneurs engage with their world (Read, Sarasvathy et al. 2011).

Efficacy may also involve components including (self-) motivation, and the measurement of effectiveness against goals (Locke and Latham 1990). Early work by Bandura outlined four factors of self-efficacy: performance accomplishments, vicarious experience, verbal persuasion, and physiological states (Bandura 1977). More recent research indicates that entrepreneurs may start new ventures with an effectual view evaluating the level of “affordable loss” (Dew, Sarasvathy et al. 2009), but venture failure may challenge the levels of self-belief for the entrepreneur. However, the persistence of repeat, serial and portfolio entrepreneurs demonstrates they remain confident in their own abilities despite setbacks (Estrin, Mickiewicz et al. 2011), and perhaps their own perception of risk is more important than any objective evaluation of risk (Busenitz 1999).

Confidence appears a pre-requisite for starting a company. Perhaps "...the tendency toward optimism is unavoidable ...It's unlikely that companies can, or would even want to, remove the organizational pressures that promote optimism." (Nielsen and Sarasvathy 2012). Some authors approach this issue from a psychological perspective, examining how founders draw benefits from previous failures while filtering out negative aspects (Lovallo and Kahneman 2003: 1). Optimism may also affect perceptions of risk (prospect theory): "entrepreneurs ... tend to perceive existing risks as smaller than they are and smaller in magnitude than other persons do." (Cannon and Edmonson 2004). Taking this further, Baron suggests that Dispositional Positive Affect (DPA) can influence how founders respond to failure (Baron 2004: 224), yet this must be balanced with potential downsides, including the impulsiveness arising from inattention to negative forces. Baron also proposes that counterfactual thinking is more prevalent among entrepreneurs (Baron, Hmieleski et al. 2012), and perhaps reflecting on failure forms a significant part of such 'what-if' analysis.

We might see confidence and persistence as admirable and essential qualities. Trevelyan provides quantitative evidence for the role of confidence (Trevelyan 2007), suggesting that confident entrepreneurs might devote more effort to distracting or un-productive tasks. Some celebrate the optimism and confidence of serial entrepreneurs (Carland, Carland et al. 2002), while others address the issue of hubris, or the over-estimation of one's capabilities (Hayward, Forster et al. 2010). Perhaps the degree of passion helps to define the difference between overconfidence and hubris: Cardon examines entrepreneurial passion and evaluates why some entrepreneurs retain or lose this over time (Cardon, Wincent et al. 2009). In a similar way, the 'right' amount of confidence is needed to avoid both 'analysis paralysis' as well as stimulating action "before it makes sense" (Chandler, DeTienne et al. 2011).

Persistence involves the pursuit of action in the face of opposing forces (Evans and Leighton 1989). Such persistence may lead to improved performance: 30% of previously successful entrepreneurs will succeed in subsequent ventures, where the probability is 18% for first-time and 20% for previously failed entrepreneurs (Holland 2008; Holland and Shepherd 2011). However, while persistence and tenacity might demonstrate admirable adherence to a consistent vision they might alternatively conceal a stubborn refusal to face contradictory facts.

“Attribution theory might thus provide a useful means to understand why some entrepreneurs simply give up when facing setbacks, while others persist.” (Gompers, Kovner et al. 2008: 2).

‘Big Five’ personality traits (conscientiousness, extraversion, openness, agreeableness and neuroticism) are often cited in reference to entrepreneurial capabilities, but not specifically regarding failure (Digman 1990; Costa and McCrae 1995). However, Cantner outlines how these characteristics have different impacts on entrepreneurs: “[of] the Big Five traits openness, conscientiousness and extraversion positively relate to entrepreneurial performance. Contrarily, neuroticism is detrimental to entrepreneurial performance and agreeableness has no effect” (Cantner, Silbereisen et al. 2012).

The Entrepreneurial Response to Failure

As stated above, ‘failure’ can be defined in objective or subjective terms, but these typically involve the termination or cessation of a venture, leaving entrepreneurs with the need to find their next opportunity. Various authors have examined how entrepreneurs respond to failure, both personally (regarding stress and grief) and developmentally in the way they learn and view new opportunities. Venture failure may be stressful but not all negative: “strain (psychosomatic complaints, susceptibility to stress) activates strategies that have positive effects on long-term survival and performance” (Rauch, Liebig et al. 2007). However, some founders experience burnout from such stress, which may be heralded by exhaustion and disengagement (Coombs, Webb et al. 2009).

Like personal bereavement, recovery from business failure passes through several stages. Entrepreneurial failure can be viewed through a framework of grief, with emphasis on the personal recovery process of the entrepreneur (Cope and Cave 2008). Shepherd reaches four conclusions using this approach: (1) Failure is an important source of learning for entrepreneurs; (2) Bankruptcy and other failure events are stressful on the entire family; (3) Failed entrepreneurs should seek support and (4) a lack of separation between person and business makes recovery harder (Shepherd, Douglas et al. 2000; Shepherd 2003; Shepherd and DeTienne 2005; Shepherd, Wiklund et al. 2009). Furthermore, psychology literature on *coping* has

investigated why some individuals are able to ‘recover from’ and ‘grow as a result of a major loss’ (Shepherd, Patzelt et al. 2011).

Perhaps we are drawn to stories of failure because they are compelling human dramas, and easy to understand in the context of everyday setbacks. Cope and Cave conducted phenomenological interviews with failed entrepreneurs, identifying a traumatic yet significant entrepreneurial learning experience which is different for each individual (Cope and Cave 2008). Perhaps in small startup companies where people work in close proximity and have co-dependent relationships, learning-by-doing becomes a more intense experience. Learning may also be made more effective by iteration and experimentation. Evans and Bahrami describe how the Silicon Valley “emphasis on continuous recalibration is especially critical when there are no historical precedents or successful recipes for a given product or market arena” (Evans and Bahrami 1995). Although learning-by-doing may destroy companies and careers, it may add value to the wider economy, leading to re-cycling of ‘failed’ people, assets and technology.

Holcomb takes this further and suggests such learning occurs at an increasing (non-linear) rate when the accumulated knowledge is a learning skill. In early-stage ventures, setback and failure encourage the entrepreneur to learn how to learn (Holcomb, Ireland et al. 2009). This highlights the phenomenon of ‘double-loop learning’: faced with immediate and personal consequences of decisions, learning is immediately re-presented to the individual in a double feedback loop, reinforcing significance and increasing the chance it will instruct future decision-making (Argyris 2002). Cope takes this further: “recovery and re-emergence from failure is a function of distinctive learning processes that foster ... higher-level learning outcomes.” (Cope and Cave 2008). However, failure might stimulate learning and increase the probability of future success only if the entrepreneur is capable of identifying and analyzing the failure event to recognize and learn the appropriate lessons (Cannon and Edmonson 2004). Perhaps this is a two-stage process: “we become better individuals because entrepreneurship allows failure, and from failure we learn” (Acs and Szerb 2011). A further refinement of this argument examines types of entrepreneurs, concluding that the strong emotions experienced by serial founders results in more blaming of others (an “attributional bias”), and making them less capable of learning than

portfolio entrepreneurs, who spread the risk and intensity across multiple ventures (Ucbasaran, Westhead et al. 2011).

Entrepreneurial failure may also affect decision-making in uncertainty. In startup conditions, judgment and decision-making is often based on incomplete and uncertain data. Kahneman observes: “complex judgments and preferences are called ‘intuitive’ in everyday language if they come to mind quickly and effortlessly” (Kahneman 2002: 481). Such rapid, intuitive judgments are typical of entrepreneurs and are often made at the margin, raising the idea of prospect theory. Learning ‘at the margin’ is perhaps made more immediate and profound to the entrepreneur when confronted with the failed outcome of his decisions. Berglund and Sarasvathy offer a further detailed analysis of how entrepreneurs make decisions in uncertain conditions (Berglund and Sarasvathy 2010).

Another aspect of failure-response lies in the identification of new opportunities: some authors have suggested this might involve ‘real options’ analysis (McGrath 1999; Cave and Minty 2004), scrutinizing entrepreneurs’ ability to evaluate entrepreneurial opportunities and their tolerance for risk. “Real options confer the right but not the obligation to take strategic action ... they are small investments that provide access to potential opportunities” (Klingebiel and Adner 2012). Dew and others offer an alternative perspective on how opportunities are assessed: “Affordable loss is one component of effectuation, a set of heuristics for making decisions under uncertainty.” (Dew, Sarasvathy et al. 2009) This latter approach may help describe how ‘plunge decisions’ are made, and is representative of intuitive entrepreneurs who may view the world through ‘Rose-Tinted Spectacles’ (Cave and Minty 2004), rather than the rational approach of more analytic individuals who apply a ‘real options’ filter to their economic opportunities.

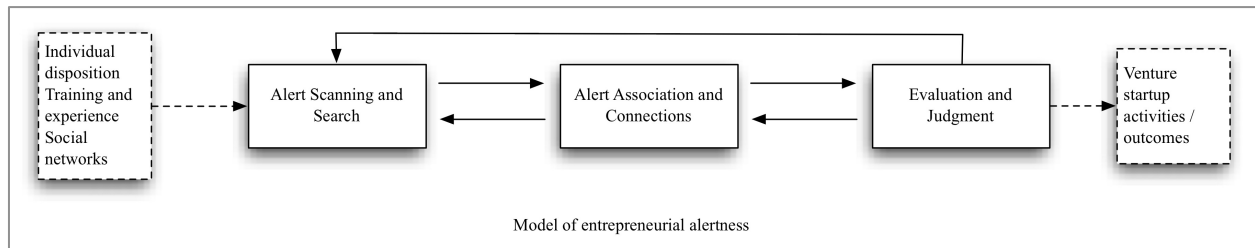


Figure 5. Model of Entrepreneurial Alertness, Describing Three Stages of Alertness on the Part of the Entrepreneur: (1) Scanning; (2) Connecting; and (3) Evaluation (Tang, Kacmar et al. 2012)

Alternatively, opportunity identification may involve a degree of “entrepreneurial alertness” (Tang, Kacmar et al. 2012). In Figure 5 three stages of alertness are defined: scanning and search, in which new ideas are sought in a “persistent and unconventional” way (Busenitz 1996); association and connection, including bisociation or “the sudden interlocking of two or more previously unrelated matrices of information or thoughts” (Koestler 1964); and evaluation and judgment in which the opportunity is assessed for relevance and fit to the individual entrepreneur. After a failed venture, perhaps this alertness is a factor in how the entrepreneur responds. Put another way “do the roots of such failures possibly reach back into the entrepreneurial alertness process?” (Tang, Kacmar et al. 2012).

Finally, in the distinction between the discovery and creation of opportunities (Alvarez and Barney 2010), an inability to learn from failure might limit an entrepreneur’s ability to create new opportunities but he may still be open to discovery. Berglund has examined the underlying differences between Schumpeterian discovery and Kirznerian creation opportunities at length (Berglund 2007), and his phenomenological approach suggests entrepreneurs’ *perceptions* of the opportunity indicate whether it is ‘discovered’ or ‘created’.

International Comparisons

Jones et al. provide a comparative survey of literature in three main areas of research: Entrepreneurial Internationalization, International Comparisons of Entrepreneurship and Comparative Entrepreneurial Internationalization (Jones, Coviello et al. 2011). However, this work mentions failure just once, and only in connection with firm failure. Similarly comparative studies of entrepreneurship in different countries and cultures (Tajeddini and Mueller 2009) do

not specifically address the experience and consequences of failure. Sources of international data such as the Global Entrepreneurship Monitor (GEM) provide annual reports of trends and new lines of research, including fear of failure. For example, in 2010 UK GEM Report, “fear of failure among those who perceived opportunities in the UK was the same as the G7 average” (Hart and Levie 2010), and an earlier comparative study of “Failure Tolerance and Second Chancing” was also based on GEM data (Burchell and Hughes 2006).

Country	Research papers and studies
North America	(Cooper, Woo et al. 1988; Saxenian 1996; Cave, Eccles et al. 2001; Delmar and Shane 2003; Landier 2005; Cope and Cave 2008; Holland 2008).
United Kingdom	(Cave, Eccles et al. 2001; Stokes and Blackburn 2001; Cave and Minty 2004; Garnsey and Heffernan 2005; Cressy 2006; Cope and Cave 2008; Saridakis, Mole et al. 2008; Ucbasaran, Westhead et al. 2010).
Germany	(Hinz and Jungbauer-Gans 1999; Bergmann 2002; Wagner 2002; Welter and Kautonen 2005; Bergmann and Sternberg 2007; Buenstorf 2007; Boden, Nett et al. 2009; Buenstorf and Fornahl 2009).
Australia	(Trevelyan 2007; Gulst and Maritz 2009).
Canada	(Thornhill and Amit 2003; Mitchell, Mitchell et al. 2004).
China	(Engelen 2010; Tang 2010; Yang and Rocher 2012).
Dominican Republic	(De Castro, Alvarez et al. 1997).
France	(Landier 2005).
Iran	(Aghajani and Abbasgholipour 2012).
Israel	(Gulst and Maritz 2009).
Korea	(Lee and Lee 2005).
Spain	(Vaillant and LaFuente 2007).
South Africa	(Pretorius 2008; Pretorius 2009; Pretorius and Le Roux 2011).
Sweden	(Renko, Carsrud et al. 2008; Wetter and Wennberg 2009; Wennberg, Wiklund et al. 2010).

Table 3. Sample of National and Comparative Studies of Entrepreneurial Failure

Much of the literature concerning entrepreneurial failure is created in, or focuses on, North America. Looking outside the USA reveals a scattered picture of single-country studies and

multi-country comparisons of venture failure, including research into the UK and Germany (see Table 3).

A number of studies in Germany have examined the startup rates of small businesses (Hinz and Jungbauer-Gans 1999); nascent entrepreneurship (Brixy, Sternberg et al. 2012); regional variations in entrepreneurship within Germany (Lückgen, Oberschachtsiek et al. 2006; Fritsch and Mueller 2008), and rates of self-employment (Staber and Bogenhold 1993). This work offers some comparison between Germany and the UK, concluding: “promotion of the entrepreneurial culture, especially in Great Britain but increasingly also in Germany, is desired to support the structural change of the economy” (Hinz and Jungbauer-Gans 1999: 319). Only a limited number of papers focus on high-technology firms: a case study of Intershop is notable here (Buenstorf and Fornahl 2009), as well as an empirical examination of entrepreneurship in innovative and non-innovative firms in Thuringia (Cantner, Silbereisen et al. 2012).

A comparison of attitudes to failure in multiple countries invokes the issue of national ‘culture’ (Mueller and Thomas 2001; Klyver, Hindle et al. 2007; Bloom and Van Reenen 2010; Hofstede, Hofstede et al. 2010; Shinnar, Giacomini et al. 2012) and multiple international, regional and cross-regional studies performed on data generated by GEM (Wagner 2007; Bosma, Acs et al. 2008; Hechavarria and Reynolds 2009; Brixy, Hundt et al. 2010; Hart and Levie 2010; Kelley, Bosma et al. 2011; Martinez, Yang et al. 2011). The work of Hofstede is instructive here, especially his identification of ‘collectivism versus individualism’, and ‘uncertainty avoidance’ (see Figure 6) as two of his five dimensions in defining culture (Hofstede, Hofstede et al. 2010). This framework was expanded by Shinnar with gender roles to compare entrepreneurial intentions in China, USA and Belgium (Shinnar, Giacomini et al. 2012) and Bloom examines differences in how national managers (including entrepreneurs) behave in different countries (Bloom and Van Reenen 2010). Klyver extends to this by establishing a connection between entrepreneurial intentions and nation culture in a 51-country study (Klyver and Thornton 2010), although, once again this rich data does not address the issue of failure.

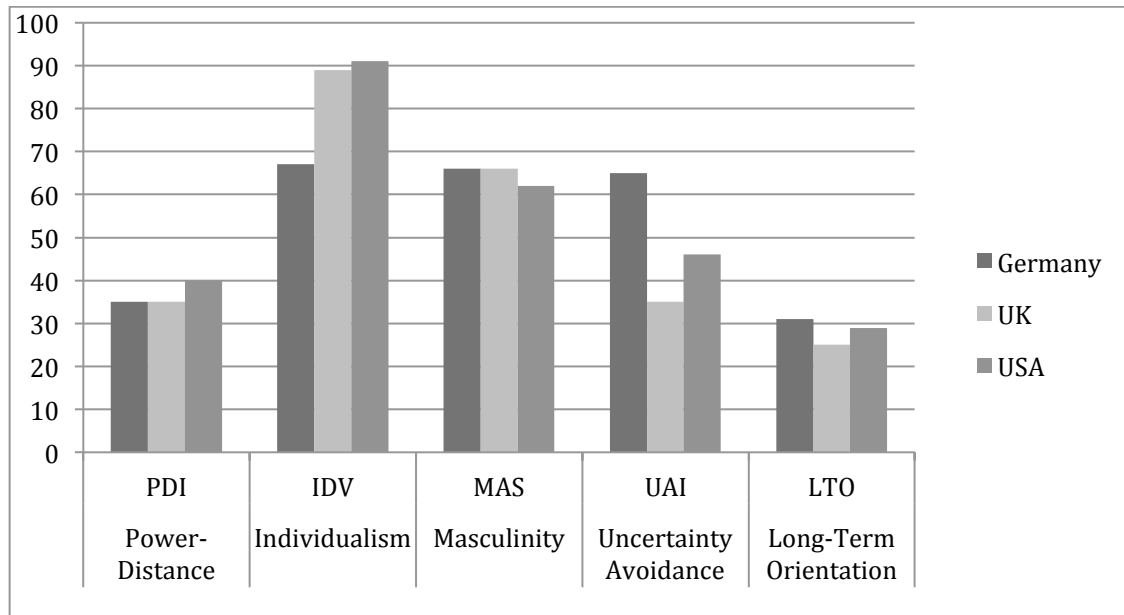


Figure 6. Comparison of Values for Five Hofstede Dimensions for Germany, UK and USA (Hofstede, Hofstede et al. 2010)

Bergmann suggests that “attitudes and beliefs” differ between individual entrepreneurs but variations also exist between regions, particularly in his study of Germany (Bergmann 2002). He points out a social pressure in Germany not to start a business. “In Germany ... [some] people have a negative opinion of entrepreneurs because they regard them as capitalists or exploiters” (Bergmann 2002: 9). These national views are explored by Autio, et al. who describe the consequences of national culture on entrepreneurial behaviours with respect to GEM data from 44 countries (Autio, Pathak et al. 2010) and this is clarified in Figure 7 below. One of the resulting hypotheses is “in societies with a high level of institutional collectivism, the effect of fear of failure on entrepreneurial growth orientation will be stronger” (Autio, Pathak et al. 2010), and this is confirmed to be the case by Autio’s research. We might conclude from this that German collectivist society may have a problem with failure, whereas the UK, with its apparent lower deference to authority and higher levels of individualism, might be less severe.

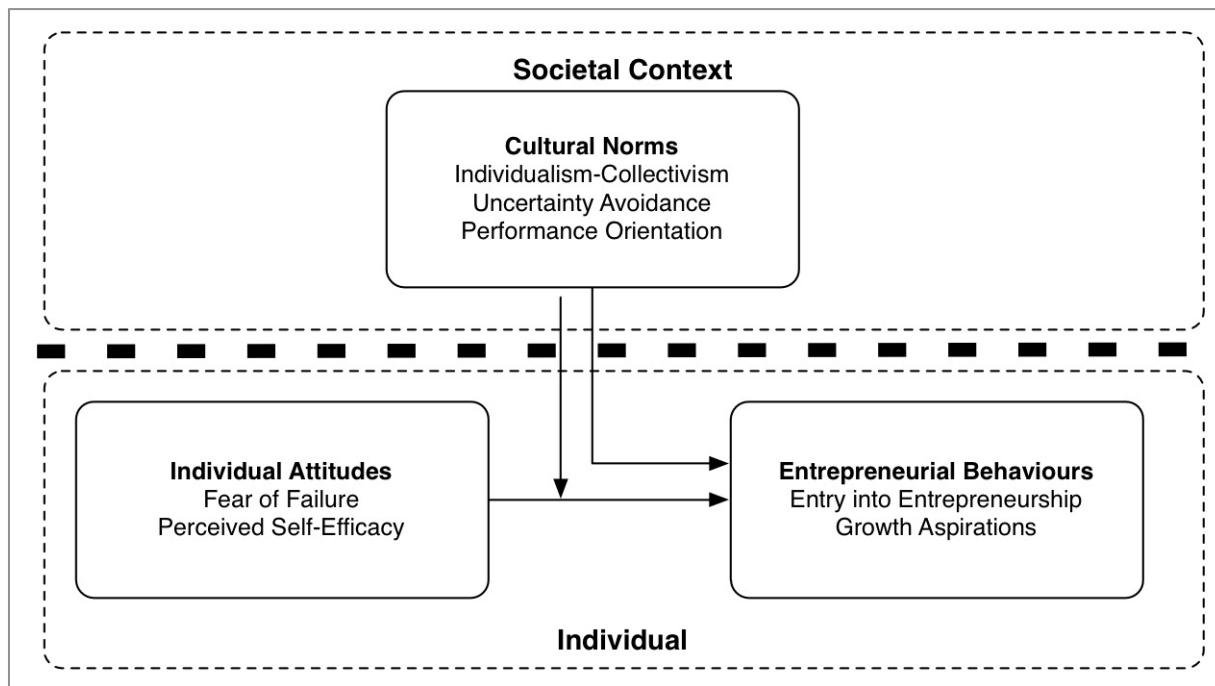


Figure 7. Theoretical Framework for Cultural Consequences, Aligning Three Main Components: Individual Attitudes, Cultural Norms, and Entrepreneurial Behaviours (Autio, Pathak et al. 2010)

Regional variations have also been studied in the USA. Cardon cites author Michael Lewis: “Where Silicon Valley exalts failure, Wall Street punishes it ruthlessly” (Cardon, Stevens et al. 2011: 80). Also in Silicon Valley, “this process of ‘flexible re-cycling’ is enhanced in the absence of the typical stigma associated with organizational failure” (Evans and Bahrami 1995: 81). Saxenian compares East Coast with West Coast, quoting a Boston-based professional: “In Silicon Valley failure is an accepted way of life, unlike in the East where failure is viewed as a death sentence” (Saxenian 1996: 68); and overall, Hart points out that twice as many Americans planned to start a business in 2005 than residents of other G-7 countries (Hart 2008: 3). Such views are reinforced by Cooper, who suggests that in the USA successful entrepreneurs are viewed as “folk heroes” (Cooper 2005).

International comparisons also address bankruptcy law and the treatment of creditors, suggesting that countries with tougher practices tend to be less forgiving of venture failure, attaching more social stigma to adverse outcomes (Landier 2005). While there are multiple insolvency options in the USA and UK, Germany does not typically offer such routes. “... In Germany, reorganization

bankruptcy is available, but only 0.3 percent of all financially troubled firms actually use it” (Seung-Hyun, Peng et al. 2007: 261).

Literature Review: Conclusion

There is much literature on the field of entrepreneurial failure from which we can draw multiple conclusions: (1) Although there is a wide range of writing on entrepreneurship and much less on failure, relatively few of these studies focus on the experience of the *individual entrepreneur*. (2) Definitions of failure are varied but we are drawn more to subjective characterizations where failure represents a *shortfall against expectations*. (3) *Stigma and the fear of failure* represent powerful forces in certain cultures, and might appear to suppress the appetite for risk in new ventures. (4) Of the many personality factors in the entrepreneurial mix, an examination of *self-efficacy* holds much potential. (5) The response of entrepreneurs to failure often involves *learning* as well as a sense of ‘*alertness*’ to new opportunities, and finally (6) there are relatively few *comparative* national studies of entrepreneurial failure and industry-specific studies are rare. Therefore, several research gaps emerge: comparative studies of the entrepreneurial experience and response to failure, especially in specific industries such as the high-technology sector; research papers covering direct, narrative accounts of the entrepreneur’s experience, and studies that examine a holistic experience of failure from the point of view of the entrepreneur.

CHAPTER 3: METHODOLOGY

Methodology: Introduction

This section reviews (1) prior literature and examines various methodologies applied to entrepreneurial failure; (2) the methodology selected for this research; (3) the reasons for its selection, and (4) the research design. A further review of the literature on methodology is included here in addition to the previous chapter. If we hope to investigate the detailed experiences of entrepreneurs in multiple countries there are multiple methodologies available, and we start with an examination of these options.

Literature Review (Methodology)

Academic literature on entrepreneurial failure is based on various methodological approaches: some papers are specifically concerned with methodological issues. A brief survey of literature in this area, based on relevance to the research question as assessed by the author, is outlined in Figure 8.

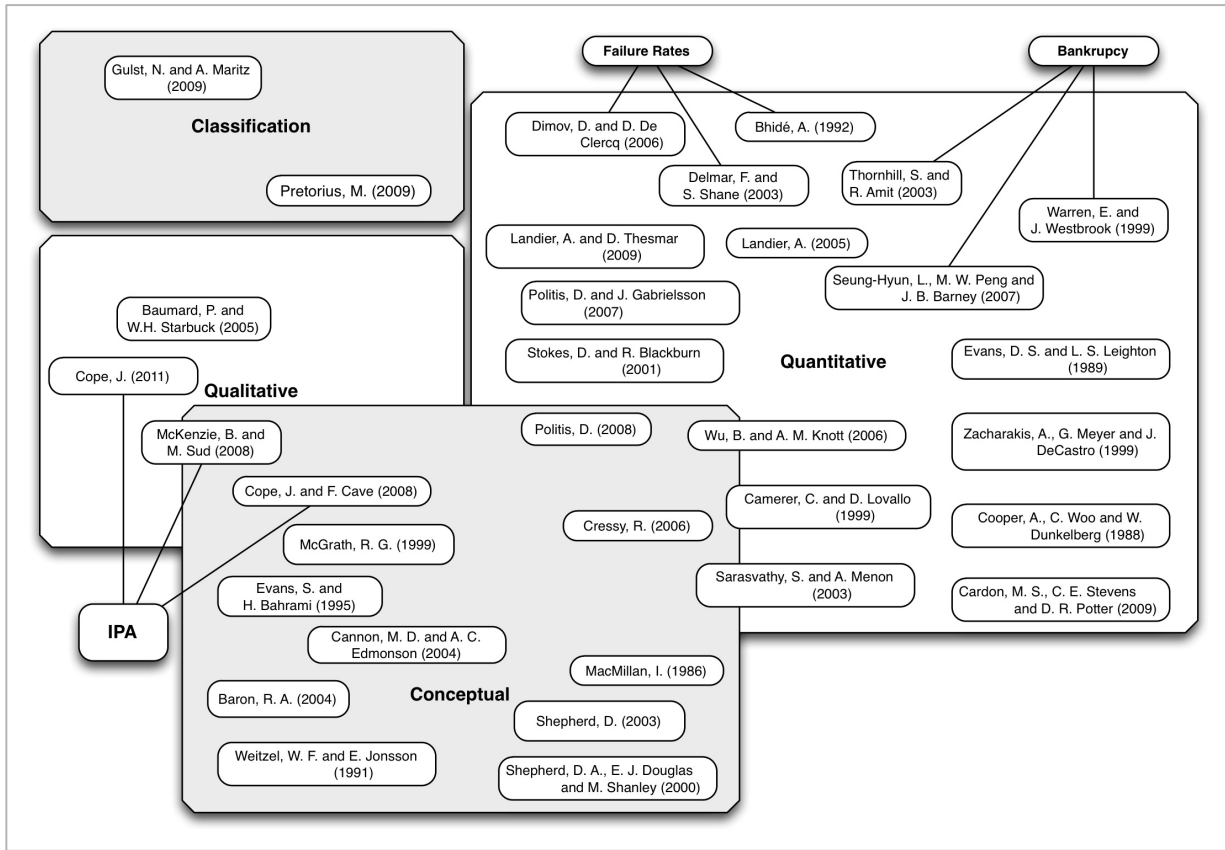


Figure 8. Map of Key Research Papers on Entrepreneurial Failure Grouped by Type

Quantitative approaches have been applied in many, if not most academic papers in this area. These have addressed multiple failure-related topics including failure rates (Bhidé 1992; Delmar and Shane 2003; Cressy 2006; Dimov and De Clercq 2006; Wu and Knott 2006) and bankruptcy (Warren and Westbrook 1999; Thornhill and Amit 2003; Seung-Hyun, Peng et al. 2007). Other authors have applied statistical analysis from surveys and economic datasets to issues including confidence levels (Camerer and Lovoal 1999) and perceptions of opportunity and self-efficacy (Cooper, Woo et al. 1988; Landier and Thesmar 2009; Liu 2010). The perspective of investors, primarily venture capitalists, have also been investigated this way (Zacharakis, Meyer et al. 1999). More general aspects of entrepreneurial activity and failure have also been addressed using quantitative methods (Evans and Leighton 1989; Sarasvathy and Menon 2003), including national and comparative studies (Vaillant and LaFuente 2007; Wetter and Wennberg 2009).

Several authors have performed literature reviews and surveys within the domain of entrepreneurial failure. Most prominent among these include work from South Africa (Pretorius 2009) and Australia (Gulst and Maritz 2009), which have categorized the literature to develop a landscape of academic output. This includes an assessment of ‘conceptual’ papers which outline theory in several areas including real options analysis (McGrath 1999), ‘flexible re-cycling’ concepts (Evans and Bahrami 1995), and the grieving process of recovery from failure (Shepherd 2003). Theoretical development is also clear in the area of economic recovery (Weitzel and Jonsson 1991), business planning (Cannon and Edmonson 2004), affect and ‘passion’ (Cardon, Wincent et al. 2009; Baron, Hmieleski et al. 2012) and survival (Shepherd, Douglas et al. 2000; Pretorius 2009). More explicitly, cognitive and psychological research includes theory development on regret and counterfactual thinking (Baron 2000; Baron 2004).

From this analysis of literature several major trends regarding methodology present themselves to the author. Firstly, the evolution of the theme of self-efficacy into a more rounded theory of ‘effectuation,’ the concept that entrepreneurs believe in their own skills and can have an effect on their environment rather than be merely a subject of causation (Sarasvathy 2001; Read and Sarasvathy 2005; Sarasvathy 2008; Read, Sarasvathy et al. 2011). The entrepreneur operates at the centre of many conflicting forces and events and studying his ability to affect and control this environment represents a powerful approach to increasing understanding of the entrepreneurial experience. This approach has implications for methodology: examining effectuation may require different ways to evaluate causation.

Secondly, a number of authors see the virtue of qualitative approaches that examine the lived experience of the entrepreneur (McGrath 1999; Berglund 2007; Cope and Cave 2008; Cope 2011). “Grounded in an ontology that sees individuals as inseparable from the world, i.e. as ‘being-in-the-world’, such entrepreneurship must ... be understood in terms of individuals who sense, hold on to and engage with anomalies that they perceive in their everyday social and cultural practices.” (Berglund and Sarasvathy 2010). This qualitative approach lends itself closely to phenomenological methods (Seymour 2006), and once the phenomenon has been examined, a hermeneutic approach is required to ascertain meaning from this experience (Seymour 2006; Smith 2007; McKenzie and Sud 2008).

Thirdly, there is an increasing awareness that entrepreneurship is a rich and complex phenomenon and can neither be measured nor placed in theoretical structures until it is better understood. Some writers have strongly criticized the devotion to theory in management science. “The requirement that every paper must contribute to theory is not very sensible; it is probably a sign of our academic insecurity” (Hambrick 2007: 1346) . Although this may represent an extreme perspective, for some phenomena perhaps simply ‘understanding what happens’ is enough to begin with, and a rush to theory is premature. This is particularly true for phenomenological studies: perhaps, as explored by von Krogh: “Phenomenon-based research is a *pre-theoretical research strategy* because it explores and informs research designs that enable scientific inquiry to proceed.” (von Krogh, Lamastra et al. 2009: 1).

Finally, there is the rise of narrative analysis in which rich and complex ‘lived-world’ experience is examined and interpreted (Downing 2005). For example, a series of articles analyze the narrative of a toy store entrepreneur from multiple perspectives in one edition of the Journal of Business Venturing (Ahl 2007; Baker 2007; Steyaert 2007). Narrative analysis of transcribed interviews – perhaps using Downing’s perspective of Storyline, Emplotment, Structured Narrative Enactment, or SENSE (Downing 2005) – is able to interpret the meaning of unsolicited stories as well as structured interview data.

Research approaches that combine narrative analysis with phenomenological approaches and hermeneutics have included elements of qualitative psychology (McKenzie and Sud 2008; Smith, Flowers et al. 2009; Cope 2011). The work of Jason Cope in particular (Cope and Cave 2008; Cope 2011) has employed Interpretative Phenomenological Analysis (IPA) to examine attitudes to failure among entrepreneurs (and investors) whose ventures have been unsuccessful. The definition and exploration of IPA techniques represents a body of literature in itself (Smith 1996; Cope 2003; Eatough and Smith 2008; Smith and Osborn 2008; Smith, Flowers et al. 2009). This will be examined in more detail in the next section.

In summary, various methodologies have been applied in the study of entrepreneurial failure. However, the present research question addresses ‘attitudes’ of entrepreneurs in a group consisting of hard-to-locate individuals with complex experiences and perspectives: this may best be addressed using a phenomenological approach, and analyzed by listening to the narrative

stories from such experiences. It is proposed that the most appropriate methodology is a qualitative approach, specifically the qualitative psychology-inspired methodology of IPA.

Selection of Methodology

From a review of entrepreneurial failure literature and a series of preliminary and exploratory interviews, a research gap emerges regarding in-depth studies of the personal experiences and narratives of entrepreneurs whose businesses failed. Given the high public interest in technology entrepreneurship, little academic research has taken place in this regard, with the exception of two key studies (McKenzie and Sud 2008; Cope 2011).

As context to this research, the following is instructive: “Whilst conceptual clarity regarding failure is being achieved there remains a noticeable paucity of supporting qualitative studies that have sought to tell the entrepreneur's story, grounding theoretical discussions of failure in rich narrative accounts.” (Cope 2011). This research is intended to address this particular gap in the literature.

Research Methodology

Selected methods of research should originate from a clear philosophical position.

This researcher enjoyed a 25-year career in business and technology before embarking on his doctoral research: his personal experience has confirmed the importance of meanings and motivations in human interactions. Among a real world of physical actions and phenomena, it is held that what gives meaning to the human experience are the relationships, intentions and emotions of people, how they interact with the physical world and each other. This may be regarded as an ‘internal realist’ perspective and provides a basis for a phenomenological approach to research, where the research purpose is to understand how and why entrepreneurs respond, act and relate to the world around them.

Cope examines the phenomenological perspective at length (Cope 2003), including the supporting philosophical tradition dating back to Husserl. At an epistemological level, phenomenology seeks to explore and reveal the *essential* types and structures of experiences (Burrell and Morgan 1979), and to do so without any preconceptions or assumptions. In some ways, Husserl sees “science as a second-order knowledge system, which depends on first-order personal experience” (Smith, Flowers et al. 2009: 15), and this establishes the importance of examining the lived experience (‘life world’) in detail to scrutinize the meaning of human activities, motivations and relationships. Husserl was a natural scientist, but in regard to the social sciences it can be argued that this philosophy favours an interpretative approach: later exponents of this position echo this. “The aim of phenomenological inquiry is to understand the subjective nature of ‘lived experience’ from the perspective of those who experience it, by exploring the subjective meanings and explanations that individuals attribute to their experiences.” (Cope 2003). The examination of ‘attitudes’ as part of this exploration makes this phenomenological approach compelling when dealing with complex situations such as entrepreneurial failure.

Berglund takes this approach further. “Phenomenologists ... argue that the world and the objects we perceive exist to us through the meanings we give to them, through an act of interpretation. This does not necessarily deny the existence of an external physical world independent of our perceptions, but it does imply that the only way things exist to us is through the way we interpret and give meaning to them.” (Berglund 2007). To apply Husserl to practical research requires two steps. Firstly, the bracketing or disregarding (or transcending) of personal socialized and learned prejudices – to eliminate the personal in order to examine the pure phenomenon. Secondly, the free and imaginative interpretation of different aspects of the phenomenon “to understand the limits of its identity, which are its transcendental essences and which are its conditional features.” (Berglund 2007). A subsequent development emerges in interpretative phenomenology, which is derived from the work of hermeneutic philosophers such as Heidegger and Ricoeur, who advocate the “embeddedness in the world of language and social relationships, and the inescapable historicity of all understanding.”(Finlay 2009).

Finlay surveys various strands of phenomenological methodology (Finlay 2009) across multiple authors and schools (including: van Manen 1990; Giorgi 1997; Ashworth 2003; Halling, Leifer et al. 2006; Garza 2007; Dahlberg, Dalhberg et al. 2008). She identifies certain conflicts and inconsistencies in her review. While being concerned about research which purports to be Husserlian without reduction, she is also skeptical of researchers who “claim to have bracketed, and therefore transcended their assumptions while using a hermeneutical approach [and who] would seem to be both naïve and confused” (Finlay 2009). She describes the multiplicity of phenomenological approaches (King, Finlay et al. 2008) and highlights their over-riding benefits: “Phenomenological researchers generally agree that our central concern is to return to embodied, experiential meanings. We aim for fresh, complex, rich descriptions of a phenomenon as it is concretely lived.” (Finlay 2009). Perhaps the rich, complex and often contradictory stories of entrepreneurial failure are well-suited to the phenomenological approach.

Phenomenological research is idiographic and descriptive, examining the lived world of individuals, their detailed experiences often recalled through narrative. As Patton writes: “If you want to know how much people weigh, use a scale... If you want to know what their weight *means* to them, how it affects them, how they think about it, you need to ask them questions, find out about their experiences, and hear their stories.” (Patton 1990: 13). This is echoed by Smith: “The aim of IPA is to explore the participant’s view of the world and to adopt, as far as is possible, an ‘insider’s perspective.’” (Smith 1996: 264). In this way, there is strong alignment between our research objectives and an IPA approach.

The subjective, personal experiences of entrepreneurs and situations in which their ventures have failed will be explored using IPA methods: the views arising will be documented and evaluated using IPA content analysis, supported by narrative analysis. Given the individual and idiosyncratic personalities within the cohort of habitual entrepreneurs, and the objective of revealing and evaluating *attitudes*, this qualitative approach is regarded as the most appropriate.

Justification of Methodology

Why apply IPA, when other qualitative techniques such as grounded theory or ethnographical ‘thick description’ might seem appropriate to this research topic? Grounded theory appears to offer suitable ways to study the failure experience of entrepreneurs and construct a view of their motivations and behaviours (Glaser and Strauss 1967), but this method aims to build substantive and formal theory. Alternatively, ethnography offers an approach to study the entrepreneurial experience, with thick description (Geertz 1973) of experiences, events and relationships. Both of these methodologies take an ‘outside-in’ approach, however, seeing the individual entrepreneur as one actor among a cast of other people, events and locations. To study the perspective of the entrepreneur, we need an ‘inside-out’ approach, hence the leaning here towards phenomenological methods. In this respect, this author is drawn more to the Keatsian concept of ‘Negative Capability’ than writers on methodology in social science. The complexity of behaviour and contradictory actions of entrepreneurs in times of decline and failure seem to demand an open approach to revealing insight rather than a drive to resolve certainty. In understanding individuals (or animals), Keats tries to perceive the thoughts, feelings and intentions of that person, without prejudice, reaching a state of “Negative Capability, that is when man is capable of being in uncertainties, Mysteries, doubts, without any irritable reaching after fact & reason.” (Keats 2002: Letter to George & Tom Keats. 21 December 1817. Page 41). Regarding the academic world, Finlay asks: “Is it sufficient to strive for rich description of lived experience, or are additional aspects required such as having a special phenomenological stance or attitude?” (Finlay 2009). This is particularly pertinent in light of Giorgi’s criticism of contemporary IPA studies (Giorgi 2010). Smith’s response to Giorgi’s concerns, as described in Table 4, helps to justify the selection of IPA for this research (Smith 2010).

	Concern over IPA (Giorgi 2010).	Response (Smith 2010).
1	IPA has a weak grounding in the philosophy of phenomenology and hermeneutics.	Giorgi has failed to examine a number of philosophical studies of IPA in various papers and books (Smith 2004; Larkin, Watts et al. 2006; Smith, Flowers et al. 2009). These study the key thinkers in phenomenology and hermeneutics and the relationship IPA has to them, and represent a direct challenge to Giorgi's assertion. In addition (not mentioned by Smith), other papers have examined IPA's philosophical underpinnings (Cope 2003).
2	IPA is unscientific.	Giorgi makes two assertions here, regarding prescription and replication. Firstly, IPA does not claim to be prescriptive: guidance on best practice is provided, but it is the skills of the researcher that leads to high quality results. Regarding replication, the validity and quality of qualitative work requires different criteria to quantitative techniques. In idiographic studies of individuals, replication may not make sense. Alternative ways to evaluate quality have been proposed (Yardley 2008), but it is inappropriate to apply positivist scientific validity checks such as replicability to qualitative methods such as IPA.
3	General concerns.	Smith suggests that Giorgi's claims are based on selective and incomplete literature, based on introductory reading for undergraduates (Eatough and Smith 2008; Smith and Osborn 2008) and ignoring a body of work (Smith, Flowers et al. 2009) outlining the philosophical foundation, theoretical framework and practical guidance for researchers.

Table 4. Summary of Smith Responses to Concerns and Criticisms of Giorgi Regarding IPA (Smith 2010)

IPA involves the capture and interpretation of data arising from (in this case) transcribed interviews. The researcher is making sense of (interpreting) the attitudes, behaviours and actions of the entrepreneur. Indeed the researcher is making sense of the interviewee, who is in turn making sense of his own experience – a ‘double hermeneutic’. Arguably, the ultimate examination of this doctoral thesis represents a ‘triple hermeneutic’, when an academic examiner is making sense of the researcher, who is making sense of his interviewee, who is making sense of his own experience.

Although there are risks of a researcher's experience influencing the conduct of such research, IPA encourages the explicit removal or ‘bracketing’ of such bias as part of the analysis. Furthermore, the multi-level analysis process highlights the importance of detailed examination of perspectives, viewpoints and the lived experience of others. IPA involves a combination of phenomenology and hermeneutics and is regarded as highly suitable for the design of our current research.

Research Design

How do attitudes of habitual high-technology entrepreneurs to early-stage failure differ in Silicon Valley, Cambridge and Munich?

The unit of analysis of this study is the individual ‘habitual’ entrepreneur (Gulst and Maritz 2009). The attitude of these individuals to failure in early-stage ventures in the high-technology sector (software and media, semiconductors and computer infrastructure) has been studied in three geographic areas: Silicon Valley (California, USA), Cambridge (United Kingdom) and Munich (Germany).

Multiple research gaps have been identified based on a literature review and ten exploratory interviews in Silicon Valley, Cambridge and Munich. Firstly, phenomenological research in entrepreneurial failure to date has been limited to the US and UK (Cope and Cave 2008). Extending a comparative study to include nations with different business cultures is intended to add to this body of knowledge. Second, prior research has examined ‘critical incident’ theory, through which specific events may lead to ‘double loop’ learning outcomes (Hughes, Williamson et al. 2007), but a wider perspective of entrepreneurial learning and knowledge acquisition, arising from an extended analysis of the ‘lived experience’ (rather than a single ‘critical incident’) may augment our understanding of the impact of venture failure. Furthermore, exploratory interviews with failed habitual entrepreneurs have revealed entrepreneurs’ interest in how setback and failure fits into a wider context of economic activity. Additionally, a review of literature on entrepreneurial failure in Germany indicated that interpretative, qualitative research has not been widely applied in examining the personal experience of entrepreneurs. This offers an opportunity for new research.

Research objectives include an improved understanding of comparative attitudes to early-stage venture failure. It is hoped that this will provide two main contributions to knowledge. Firstly, themes arising from interviews might provide entrepreneurs and academics with increased awareness and understanding of a common business experience and how to cope with similar experiences in future. Secondly, comparative findings may enable reflections on the wider

economic context, such as how entrepreneurial learning and opportunity identification might be impacted by education, policy and business support in each country.

Research Approach and Potential Limitations

In-depth interviews with experienced entrepreneurs have been conducted to gather details of experiences, attitudes to failure, and reflections on experiences for learning and opportunity identification. These face-to-face interviews were recorded electronically, then transcribed and analyzed using Interpretative Phenomenological Analysis (IPA). A leading practitioner of this approach, the late Jason Cope, was consulted on the use of IPA for this thesis.

Potential limitations of the research approach arise from the sampling strategies, the reliability of historical recollections, issues of second-language filtering, and validity of the research findings.

Firstly, the validity of sampling might be undermined by the inter-connectedness of the subjects yet this research is not attempting to prove a pre-defined hypothesis, but to reveal meaning from the actions of a small, hard-to-access group of individuals. Identification of interviewee candidates was iterative: initially reaching out into networks and communities of entrepreneurs and investors, then drawing up long lists of possible candidates before approaching individuals through personal introductions. The subjects are not necessarily connected to each other: IPA is an idiographic approach and selected interviewees do not 'represent' a population. Small sample sizing is an established part of the IPA approach and this partly addresses problems identified in nomothetic psychology in which findings may reveal group-level claims without examining the experience of individuals (Smith, Flowers et al. 2009: 49).

A second limitation lies in how the role of memory and ability to recall past experience raises questions of accuracy and veracity (Draaisma 2006; Zimbardo and Boyd 2009). However, phenomenological approaches investigate the 'lived world' of the subject, including their storytelling skills: an entrepreneur might recall events perfectly yet distort their recollection, or recall poorly and change the story anyway. The issue of memory raises a potential 'interaction effect,' when interviewees' recollections of earlier and later experiences may conflict. The analyzed transcript may represent the combined and adulterated product of all the individual's

attitudes and attributes, but what they learnt and when, and how it affected subsequent behaviour is highly relevant.

Language too could be an issue. German interviews were conducted in English (like UK and US interviews) with strong English speakers, and this may conceal multiple problems. “Challenges in the interpretation and representation of meaning may be experienced in any communicative action, but are more complicated when cultural contexts differ and inter-lingual translation is required.” (van Nes, Abma et al. 2010). Although the selection of strong English speakers may limit German subjects (all non-English speakers were de facto excluded), we are not trying to be representative. Furthermore, the German recruitment of subjects occurred through the Munich Network, where many exchanges and presentations are conducted in English.

A fourth anticipated objection to the research methodology relates to triangulation and the wider issue of validity (Yardley 2008). Triangulation is problematic in studying the attitudes of entrepreneurs to failure. Although one can crosscheck an entrepreneur’s account of events with other involved parties (investors, partners, colleagues), the focus of analysis remains the entrepreneur’s *attitude* to failure. A founder might conceal their personal views in a failing company to maintain morale, creating multiple and contradictory viewpoints and thus making triangulation difficult and misleading. Furthermore, as Smith and Osborn suggest: “the respondent’s story can itself be said to represent a piece of the respondent’s identity.” (Smith and Osborn 2008: 66). Rather than establishing the authenticity of outcomes, the research investigates attitudes and intentions *regardless of outcomes*.

Yardley provides a useful framework for evaluating validity in qualitative research (Yardley 2000; Yardley 2008), summarized in Table 5. This researcher intends to reflect these principles in all stages of the research plan, and to make available on request all materials for independent audit upon its conclusion.

	Principle	Commentary, adapted from (Yardley 2000; Yardley 2008).
1	Sensitivity to Context	Researchers may establish sensitivity to context through an explicit awareness of the socio-cultural milieu (Smith, Flowers et al. 2009: 180), the relevant literature or the research material obtained from subjects.
2	Commitment and Rigour	This applies to how data is gathered and analysed. In data collection, the engagement between interviewer and subject is essential to obtain relevant and insightful data. In data analysis, the time commitment and skills needed for multi-stage IPA review is significant. Thoroughness is demonstrated in the careful conduct of interviews and the transition from factual to interpretative analysis.
3	Transparency and Coherence	Transparency can be demonstrated through the explicit publication of subject selection, interview techniques, and the appropriate disclosure of interview transcripts and analysis to appropriate (independent) experts. This research has been presented at multiple conferences (Cotterill 2011a; Cotterill 2011b; Cotterill 2011c) and in peer-reviewed journals (Cotterill 2012) for external assessment and comment. Coherence may apply to the arguments derived from analysis – does it ‘hang together’ and is there coherence between methods and underpinning philosophies?
4	Impact and Importance	Is completed research interesting, important or useful (or any combination thereof)? This is perhaps the most subjective and holistic criterion.

Table 5. Criteria for Evaluating Validity of Qualitative Research (Adapted from Yardley 2000, 2008)

This research has produced detailed transcripts of interviews with multiple ‘failed entrepreneurs’ in multiple countries: it is intended that all working papers will be made available upon request to appropriate academics with requisite permissions. This could potentially enable another researcher to reconstruct the research process from source data and thereby confirm the internal consistency of the process application, as well as matching data outcomes against inputs.

CHAPTER 4: RESEARCH DESIGN

This section outlines (1) the overall research design and plan for this thesis; (2) approaches to interview subject selection and sampling; (3) data gathering, and (4) the multiple stages of data analysis leading to conclusions.

Research Design

Our research design involves in-depth interviews with habitual entrepreneurs who have started multiple new technology ventures, and experienced failure of at least one of these ventures. The interview subjects were drawn from three locations (Cambridge, UK; Munich, Germany; and Silicon Valley, California, USA).

The interview and analysis process follows the approach of Interpretative Phenomenological Analysis (IPA), a method derived from work by Thompson in the field of consumer research (Thompson, Locander et al. 1989), and used extensively by Cope and Cave in their studies of investors and entrepreneurs (Cope, Cave et al. 2004; Cope and Cave 2008; Cope 2011).

Thompson analyzed the philosophical position of existential-phenomenology and incorporated this into a methodology for social research: “The goal of a phenomenological interview is to attain a first-person description of some specified domain of experience” (Thompson, Locander et al. 1989: 138) and this is particularly fitting for research into the personal, sensitive and individualized experiences of entrepreneurs and their attitudes to entrepreneurial failure. IPA has been developed through research domains including healthcare and well-being (Smith and Osborn 2008); research into entrepreneurial behaviours have engaged phenomenological methods, including a 2002 study of Swedish entrepreneurs into risk (Berglund and Hellström 2002).

This methodological context has a significant impact on our research design. First, IPA requires in-depth interviews and sharing of experience with individuals, often regarding difficult or traumatic events in a subject’s life (frequently in areas of healthcare and psychology on issues related to pain and loss). Therefore the selection of subjects and the setting of expectations with

them requires careful design and planning: this is made more complex by the difficulty of finding subjects who are willing to share their experiences with an academic interviewer. This researcher has experience of starting unsuccessful (and successful) technology companies and this empathy with ‘failed entrepreneurs’ is an asset that had to be applied carefully. Secondly, the gathering of data is a sensitive process. Literature on IPA recommends the minimal prompting of questions in the interview: having identified the subject let him do the talking. In our 18 interviews, all were triggered by one simple question: ‘Can you describe your experience of failure in an early-stage technology venture?’ Once started, the interviewer then guides the subject – there are no structured questions or checklists to complete: in this respect, as Smith suggests: “doing good IPA requires the development of some complex skills - interviewing, analysis, interpretation, writing, and researchers at different stages will have different degrees of fluency and adeptness at these skills. It is the degree of proficiency in these skills which will influence the quality of the research carried out more than the conscientious following of procedures” (Smith 2010).

More important, however is the impact of IPA on data analysis. This researcher found the selection and securing of interviews to be challenging but manageable, and the conduct, recording and transcribing of interviews demanding; but the time needed for data analysis was far in excess of what was anticipated. IPA requires a multi-step process outlined later in this chapter, with much manual re-reading and note-taking at each turn: this stage took seven months instead of the anticipated three.

Therefore, the research design reflects the demands of IPA in how the interviews were selected, conducted and analyzed. The research plan and timeline was presented for review early in the doctoral cycle, and has generally run on schedule, apart from the extended period of time needed for data analysis. A schedule of tasks over this timescale is presented in Figure 9 (below), which shows the research plan and timeline as it has developed, along with external review points and validation of the research topic at conferences and through submission, rejection, acceptance and publication of this research.

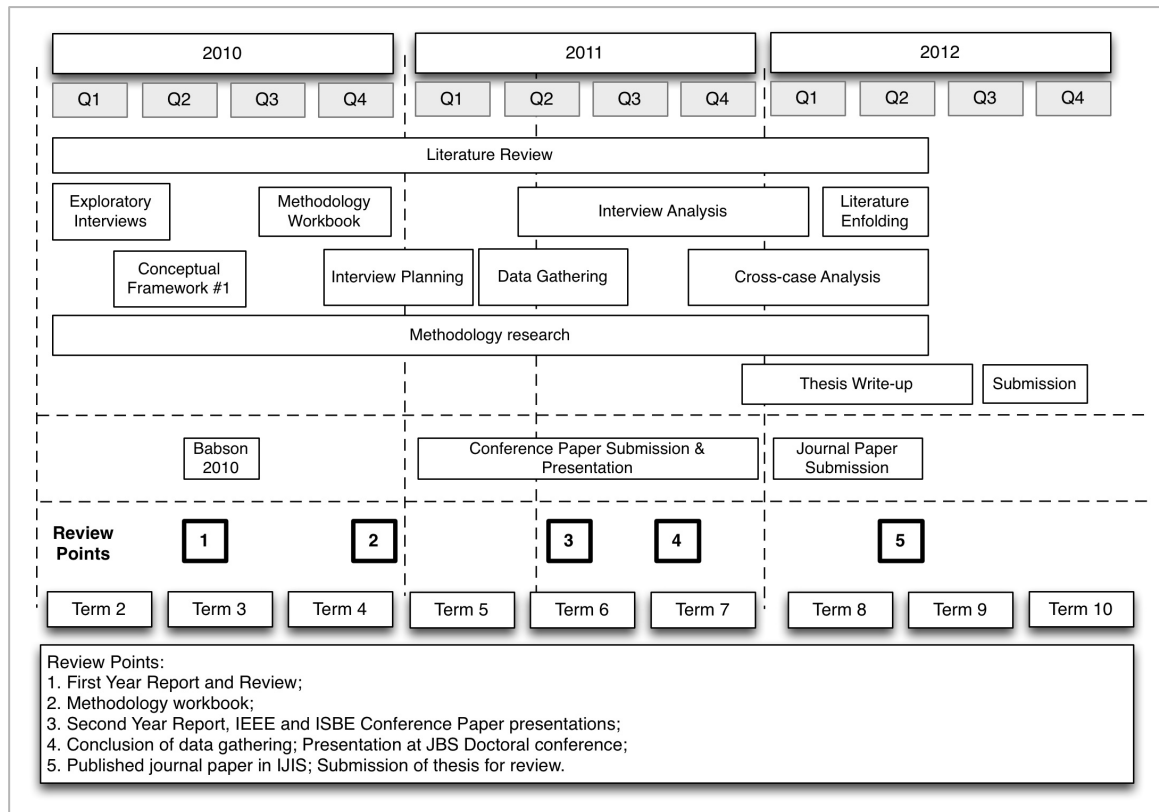


Figure 9. Doctoral Research Plan and Timeline, with Major Milestones

In Figure 9, a particular reference is made to the Babson College Entrepreneurship Research Conference (BCERC) in Lausanne, June 2010. At this stage of my research I had identified a strong interest in IPA and approached Jason Cope, of the University of Strathclyde. We met, discussed my research and agreed to collaborate further as the research plan came together. Tragically, Jason died within four months of this meeting and we were unable to fulfill this plan. Jason’s clarity, enthusiasm and optimism for my project remain with me: talking to others who knew Jason much better than my own brief encounter, confirmed that this is how he made all his collaborators feel. I like to believe that the impact of Jason’s prior work, passion and energy is present in the research I have performed for my PhD thesis.

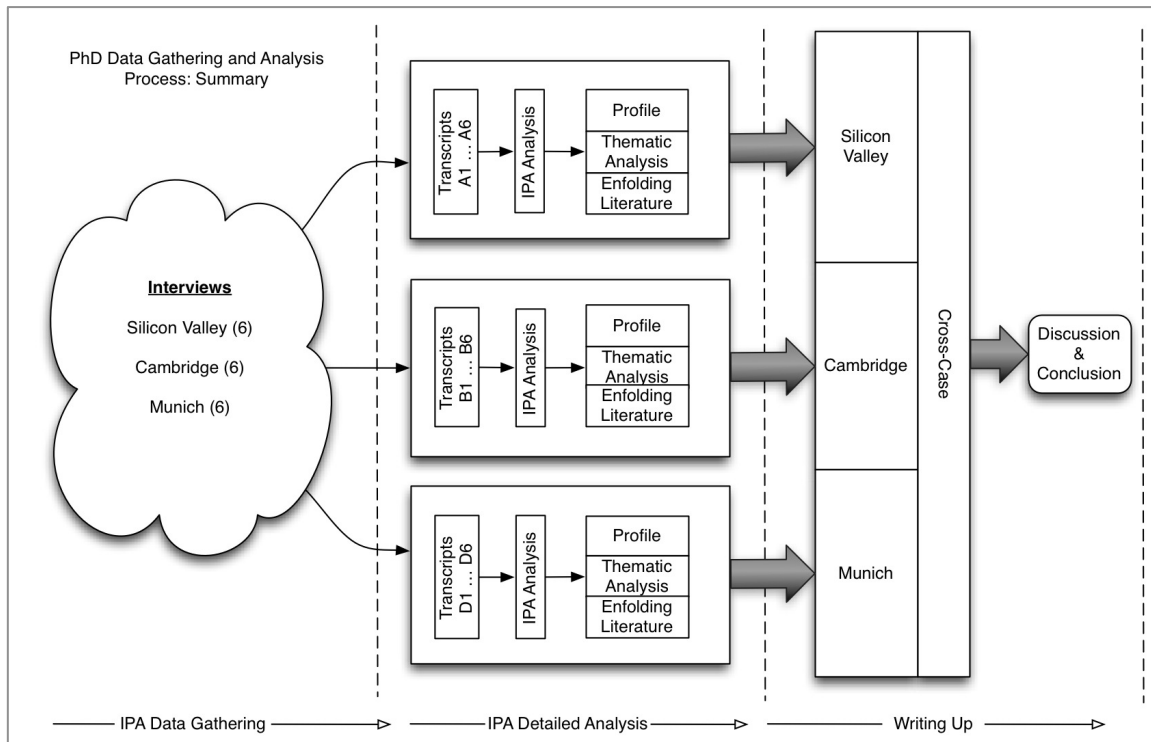


Figure 10. Overall Process Flows and Activities for Data Gathering and Analysis

The overall process flow for data gathering and analysis is outlined in Figure 10. Assuming a completion of methodology selection and a literature review, the three main steps are defined in Figure 10 as ‘IPA Data Gathering’, ‘IPA Detailed Analysis’, and ‘Writing up.’ With six extended interviews in each location completed, the IPA analysis takes transcripts for each interview and develops profiles of each subject, a thematic analysis for each subject, and enfolded literature for major themes arising from this work. This is done for each interview in turn, and then themes are identified across the six interviews in each country in order to identify emerging themes for each region. Once complete, these summary findings are re-evaluated on a cross-case comparison to identify commonalities and differences in themes between each region.

Subject Selection and Sampling

Selection of interviewees for qualitative research has practical and methodological constraints. Habitual entrepreneurs in the technology sector are hard to find, generally busy, and often

reluctant to discuss their own failed ventures. Access represented a significant challenge, so a combination of referral and chain (or ‘snowball’) sampling was employed to select candidates, stimulated by pre-existing personal contacts into entrepreneur networks in the UK, USA and Germany. The personal introduction was essential to establish the credibility and empathy needed for a satisfactory interview.

Interviewees were selected who had direct experience of founding multiple technology ventures: as ‘habitual’ entrepreneurs (Gulst and Maritz 2009) they were more likely to have greater variety of experience and less likely to be dominated by one-off economic distortions such as the dot-com bubble. Personal introductions to this small group were required to ensure willingness to share sensitive or traumatic experiences. Subjects were selected on a purposive (or purposeful) basis, initiated by pre-existing direct and indirect connections of the researcher. Using snowballing, referral or opportunistic methods is *purposeful*: “The logic and power of purposeful sampling lie in selecting *information-rich cases* for study in depth.” (Patton 1990: 230). This approach is necessary: the demise of ventures in their early-stages is poorly recorded. Private companies are difficult to track and they may join the ‘living dead’ (Pretorius 2009: 10) long before their eventual dissolution. Similarly, entrepreneurs who start such companies are not well documented: there is no official registry or licensing process from which we can derive a list of appropriate entrepreneurs. The failure of a venture goes un-celebrated, and therefore un-documented. In the absence of a suitable source of habitual entrepreneurs who have had at least one failed venture, the purposive sampling approach, based on an initial source which leads to others (and so on), was considered appropriate.

In Germany, subjects were introduced through Oliver Gajek, a Munich-based software founder who had established the Munich Network for technology entrepreneurs. Herr Gajek invited this researcher to present at his Munich forum and multiple volunteers emerged: eight interviews were conducted, of which only six were used in the analysis phase. In Silicon Valley, as in Cambridge, personal contacts of the researcher provided indirect referrals to suitable interviewees: meetings with a potential interviewee often led to another, indirect connection. Attempts were made to distance the selection from the researcher: although the sample is not intended to be representative, this goal of ‘two degrees of separation’ aims to minimize the

presence of “groupthink” in which similar conclusions might be drawn from a group of like-minded associates. The potential limitations of this approach have to be compared to the robust set of interviewees that was reached as a result. A list of the eighteen interviewees is provided in Table 6 below.

	Profile	Summary
D1	American-born male, early-50s.	Now running a university entrepreneurship centre, D1 founded multiple ventures in software in Austria and Germany over 30 years with several major failures before succeeding.
D2	White German male, mid-40s.	Physicist in Munich who founded a technology company with a large group of colleagues. This failed, made him bankrupt and he had to resurrect his career.
D3	White German male, mid-40s.	Munich scientist who started companies as a student and mid-career. His software company failed and he became an academic, now running a successful technology incubator.
D4	White German male, mid-50s.	Software company founder, with multiple failed ventures and a recent ten-year effort to build a company to exit through difficult periods. Studied in Texas and has worked extensively with US firms.
D5	White German male, mid-40s.	Software co-founder who has seen his firm fail three times. Very persistent and effective, he has recovered multiple times from failure.
D6	White German male, mid-50s.	Medical scientist who founded a biotech company before moving into software. Very severe impact of his failed venture on health and family. Now keen to develop new models for building companies.
B1	White British male, mid-40s.	Cambridge University engineer with an early e-commerce success. Made his name as CEO closing down a venture that others wanted to keep going.
B2	White British male, mid-50s.	30+ years of entrepreneurial experience in engineering companies, including Germany. Multiple failures but has had multiple turnarounds.
B3	White British male, mid-50s.	Swedish born, but British raised, B3 is an economist turned computer scientist. Keen to target difficult problems, he has failed in multiple ventures.
B4	White British male, mid-50s	Entrepreneur for 30 years since leaving Cambridge with strategy consulting experience. Multiple successes but also recent failures.
B5	White British male, late-40s.	Cambridge University engineering academic with multiple start-ups: one failed lifestyle company, another new venture in progress and keen to try more in future.
B6	White British male, early-40s.	Cambridge University scientist turned entrepreneur. Has founded multiple companies in the same technically challenging market without success.
A1	Chinese-American male, mid-40s.	Successful software executive and VC who has founded two unsuccessful start-ups in the same healthcare field.
A2	White American male, mid-40s.	Child programmer who combined Computer Science and Art, and has built a number of companies. Very intense failure experience for his most recent company.
A3	Indian-born female, mid-40s.	Computer scientist who had several jobs gaining experience for a start-up: involved in multiple failed ventures and a successful social venture.

A4	Iranian-born male, mid-40s.	Started multiple failed ventures and now runs an engineering consulting company to manage risk and build a portfolio of new companies.
A5	White American male, mid-40s.	Software executive and founder, who has worked at five unsuccessful start-ups, some as co-founder.
A6	Iranian-born male, early-50s.	Successful executive at a global company, whose first solo start-up failed and he now runs a portfolio of early-stage company interests.

Table 6. Listing of 18 Interview Subjects Interviewed and Analyzed for this Research, with Basic Profile and Summary Commentary (by Author)

Eighteen interviews were analyzed for this research, six from each country. Each candidate needed to have founded multiple ventures, and one of these had to have ‘failed.’ Regarding the size of the sample, there are various guidelines for IPA research. Smith and Osborn suggest that projects may involve between one and twenty in-depth interviews, concluding that five or six is seen as a reasonable sample (Smith and Osborn 2008: 56). Bann also discusses selection strategy in her 2009 study of entrepreneurial experience: “In phenomenological research, sample size is not necessarily a consideration, as it is in other research approaches, due to the phenomenological approach and its basis in philosophy, the depth and breadth of data needed from subjects, and the ultimate data and insights that it will bring. The sample size for a phenomenological study does not follow any notion of representation similar to quantitative studies.” (Bann 2009: 10).

In the research plan, six interviews were targeted in each country, a total of eighteen. In fact, the connections arising from the selection process (at networking events and through personal introduction to individuals or groups of entrepreneurs) led to more than 18 interviews being conducted. Some of these were not used for the analysis phase: some were inappropriate – for example, one German interviewee turned out to have no experience of failure at all but rather a series of impressive successes.

Data Gathering

During the initial stage of this research, ten exploratory interviews were conducted with habitual entrepreneurs in Munich, Cambridge and Silicon Valley. Lessons from this research were fed

back into the planning of subsequent interviews. The main body of research consists of 18 transcribed interviews based on formal IPA guidelines (Smith, Flowers et al. 2009).

Interviewees were selected, engaged and sent briefing materials before the meeting. In this preparation work, expectations were clearly set regarding the experience sought from interviewees, the unstructured nature of the interview process, and confidentiality of findings. Informed consent was obtained as part of this process, typically by email exchange. Interviews were conducted mostly in person and recorded digitally before being transcribed. Several interviews were conducted via Skype video conferencing when logistics became too complex: obtaining a clear interview was more important with these busy individuals than having direct face-to-face meetings.

IPA techniques were used to gather data but there are multiple contrasting (and potentially contradictory) sets of guidance on how to do this. On the one hand, Thompson provides strict guidance on interview technique. In this approach, the interviewer should let the interviewee drive the discussion: apart from an initial stimulus, interview questions should probe and extend the 'lived experience' of the subject – responding to, rather than driving forward the discussion. Thompson goes further: “establishing equality among participants, having questions follow from respondent discourse, employing short descriptive questions, and not asking “why?” are some methodological procedures for preventing the interviewer from assuming an overly intrusive role.” (Thompson, Locander et al. 1989: 139). This requires the elimination (or minimization) of a priori questions or assumptions before the interview: although the interview subject needs to be aware of the context of the meeting in advance to provide informed consent, the descriptive questions should flow from the course of the dialogue and not a predetermined path.

Alternative guidance for IPA-based data gathering is also offered (Smith and Osborn 2008). This proposes a more relaxed approach, supporting the use of semi-structured interviews and some degree of prepared questions, although “the respondent should be allowed a strong role in how the interview proceeds.” (Smith and Osborn 2008: 64). Perhaps the domain in which their IPA techniques are applied can help to explain the difference between Thompson, and Smith and Osborn. Thompson’s work is based on consumer research, which frequently addresses general preferences and ‘transactions’ such as purchasing certain products or brands. Smith and Osborn

discuss IPA in the context of more sustained human experiences such as attitudes to ongoing pain, enduring conditions such as dialysis, and views on sexuality. The latter may involve a higher degree of complexity over an extended period of time: perhaps this complexity helps to justify the degree of planning recommended for IPA data gathering.

The interviews were conducted at the pace of the interviewee: apart from requests for more detail, or to elaborate on comments, this researcher only asked one question and steered the conversation to remain on narratives of failure experiences, bringing the subject back to this wherever necessary.

On balance, the study of entrepreneurial attitudes to failure appears more suited to the Smith and Osborn approach: although a single trigger question was used, a checklist of issues was prepared for the interviewer's use only. Further recommendations include the expectation that the schedule of questions is a guide, not a prescription: "Good interview technique ... often involves a gentle nudge from the interviewer rather than being too explicit." (Smith and Osborn 2008: 61).

Smith et al provide a detailed explanation of the IPA data gathering approach, along with practical examples and case studies in Chapter Four of their reference book (Smith, Flowers et al. 2009: 56-78). In this they outline multiple approaches to question development, interview planning and conduct: this reference source was considered excellent preparation for the conduct of this research.

Data Analysis

IPA-based data analysis has identified experiences, attitudes, viewpoints and learning experiences of the entrepreneurs interviewed. This involved a large amount of manual effort to read, review and mark up appropriate themes from the text (the high, labour-intensive workload is seen as a potential drawback to the approach). The analysis followed guidelines on IPA to transcribe, comment, gather and collate themes from the source transcript (Smith and Osborn 2008; Smith, Flowers et al. 2009) before gathering common themes from across multiple interviews.

A process map of how analysis was performed in detail is provided in Figure 11, below. This chart shows a number of steps in the ‘IPA Analysis’ stage, including how transcripts are read, re-read multiple times, and evolve through a series of incremental steps to reveal emergent themes for each transcribed interview. Focused on the ‘unit of analysis’ each case is documented through each step on a manual basis (using Word and Excel). Once this is done and a ‘thematic analysis’ is complete for each case (thematic codes identified), these documents are further researched to pull together a case comparison within each country.

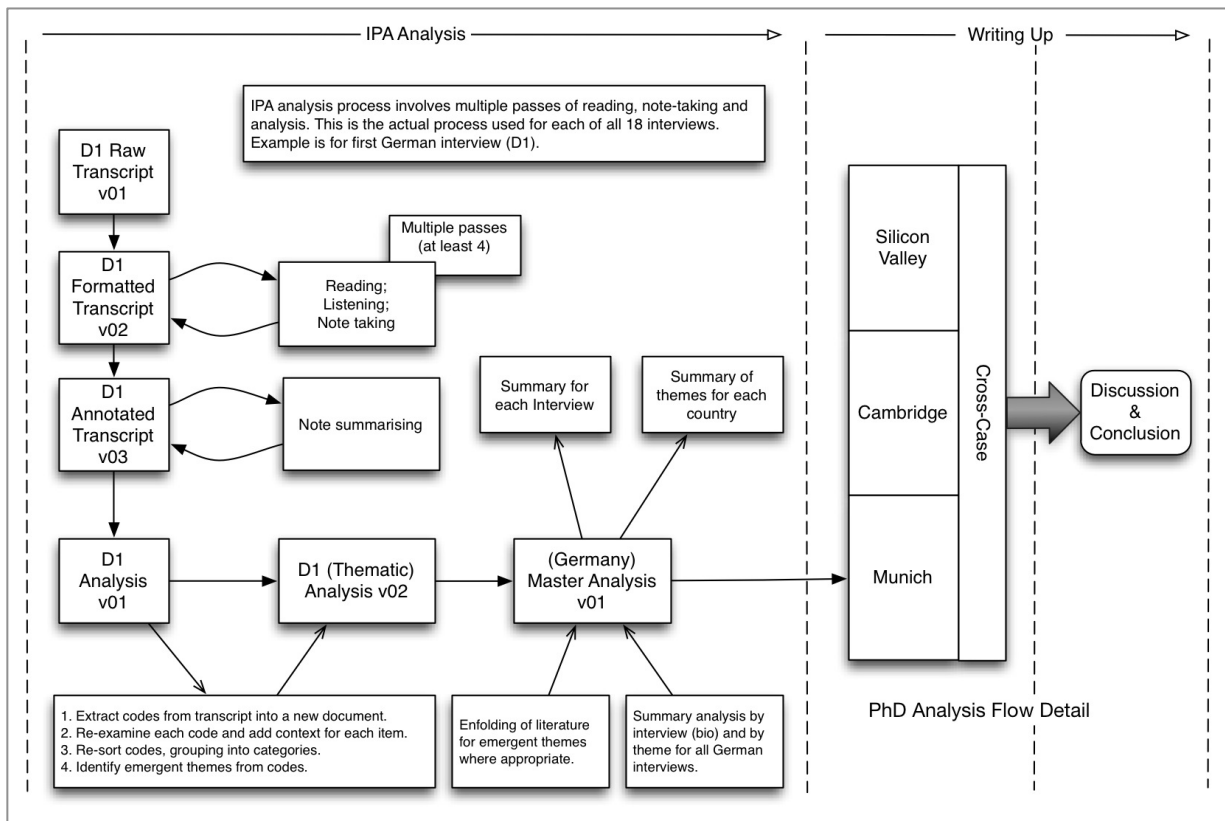


Figure 11. Detailed Process Schematic of Analysis Steps and Activities Applied to Sample Interview for Subject D1 (by Author)

As with data gathering, there appear to be two contrasting viewpoints when applying IPA techniques to data analysis: these might be classified as ‘purist’ and ‘pragmatist’ approaches. A ‘purist’ view of data analysis is presented (Thompson, Locander et al. 1989) in which IPA provides three main areas of guidance. First, any normative terms used to analyze the text should

be those of the subject, not of the researcher. Second, the principle of the “autonomy of the text” regards the transcript as a stand-alone source. This may be useful in studying failure, where attributions of blame and fault are likely to be highly subjective and emotionally driven. Textual autonomy means that “interpretation [analysis] should not incorporate hypotheses, inferences, and conjectures that exceed the evidence provided by the transcript.” (Thompson, Locander et al. 1989: 140). Also, any preconceptions or hypotheses should be “bracketed” (the third point of IPA guidance, and a core tenet of the phenomenological approach) and separated from the textual analysis. This raises a potential reflexivity problem, regarding whether a researcher can truly isolate their prior experience and insight from the analysis.

A second, more pragmatic approach is recommended in several works, including Jason Cope’s IPA-based study of failed entrepreneurs, in which he outlines multiple stages of data analysis required to derive conclusions from the text (see Table 7).

	Process of analysis	Level of analysis	Description of analysis
1	Familiarization / gaining insight	Reading of the case	Reading and re-reading of the transcribed interview to gain an appreciation of the whole story and recall of the interview in both a cognitive and affective sense.
2	Immersion and sense making	Diagnosis of the case	During this process, a free textual analysis is performed, where potentially significant excerpts are highlighted. Units of meaning are identified for each transcript, forming common clusters of meaning.
3	Categorization	Developing intra-case themes	It is intended that linking the holistic reflective analysis with the clusters of meaning will lead to the emergence of salient themes (a 'master-theme' list) for each transcript.
4	Association / pattern recognition	Developing inter-case themes	A meta-level analysis across the cases is conducted, comparing master-theme lists to identify and explain similarities and differences, and thereby creating links between accounts.
5	Interpretation / representation	Writing up	A formal process of writing up a narrative account of the interplay between the interpretative activity of the researcher and the participant's account of her experience in her own words, without the use of any relevant academic literature.
6	Explanation and abstraction	Enfolding literature	This analytical discussion of the data involves the theory-building process of 'enfolding literature', which is required to produce a theoretical explanation at a higher level of abstraction. Hence, the research is phenomenologically grounded but also interpretative and hermeneutic, requiring an iterative and comparative process of tacking back and forth between existing theory and the data.

Table 7. IPA Approach Adapted from Jason Cope (Cope 2011: Table 3 Page 611)

This practical approach can be seen in the analysis process performed by this researcher (see Figure 11) and is extended by Smith and Osborn's guidance, which they outline alongside a worked example related to a study of chronic benign pain (Smith and Osborn 2008). The approach begins by recognizing the central importance of meaning rather than events: "meaning is central, and the aim is to try to understand the context and complexity of those meanings rather than measure their frequency." (Smith and Osborn 2008: 66). Like Cope, they recommend an idiographic approach of beginning with individual examples (interviews) and slowly building up to more general themes and claims. This process is described in detail (Smith and Osborn 2008:

67-79) and is primarily a paper-based, manual series of steps to derive themes and meaning from the text.

Both the purist and pragmatic approaches inform the present analysis. Furthermore, although the researcher performed the analytical tasks by hand, manual annotation of transcribed interviews was captured on a computer using Microsoft Word and Excel. This involves a two-step process, starting with printed transcripts and handwritten comments with colour coding on paper before capturing this same input on a computer. This two-step process involved some redundant activity, but computer-based capture of a cumulative body of commentary and note taking was easier to backup, reprint and search at a later date. Furthermore, repeated engagement with the text is part of the overall IPA approach. From the Jason Cope paper on IPA analysis (Cope 2003), the steps outlined in Table 7 have been followed as closely as possible.

Steps 1 (Familiarization / gaining insight) and 2 (Immersion and sense making) were performed through an iterative process of reading and re-reading the transcripts, including listening to the audio recordings of the original interview. At the start of the analysis process in step 1, the text was made anonymous, so that names of people (but not companies or locations) were excised from the text. In line with IPA guidance, where the interview strayed into personal interactions between the interviewee and researcher, this text was ‘bracketed’ by redacting the text in the transcript, with the effect of removing such text from the analysis source. The use of audio replay served two purposes: firstly, it provided an additional check on the accuracy of transcription and minor corrections were made to the text as a result; secondly, it provided additional context at various points of the interview recalling gestures and interactions. These also helped to make the long process of repeated analysis more interesting and compelling to the researcher. [Note - as a doctoral student experiencing this scale of data analysis for the first time, I found this took much more time and effort than expected.]

Step 3 (Categorization) involved the distillation of many comments and highlighted sections of text (all recorded in the Microsoft Word transcription of each interview) into a categorization scheme. This scheme evolved over time, and two major observations can be made about this experience. Firstly, the categories tended to fall into two types – some simple (such as ‘bitter’, ‘decisive’, ‘stigma’, etc.) and others more complex and qualified hybrid codes such as

“BETRAYAL. By Finance Director walking away with reputation” (interview with B2). Secondly, each interview was read (multiple times) and analyzed in sequence, and it became clear that certain codes were common to multiple interviews. While efforts were taken to look at each interview afresh, some codes applied to only one interview whereas others were prevalent in all interviews. Step 3 involved an intense effort to transpose the codes arising from analysis of an interview into a thematic view. This was done manually, by listing codes in a new document and posting any codes, comments and quotations from the original transcription into a new document layout. The result of this, for each interview, was a list of codes, together with extensive supporting examples, instances and quotations for each code. This process involved some natural consolidation of codes, merging some together into one (for example “Ethics” and “Honesty” into “Ethics and Honesty”). The listing of codes, and the consolidation of these codes where appropriate, is then reviewed to develop a list of thematic codes, or emerging themes: this is depicted in Figure 11, where the box labeled “D1 Analysis v01” becomes “D1 (Thematic) Analysis v02.” The transformation from codes to themes is also referenced in Figure 12 (Saldana 2009).

In Step 4 (Association / pattern recognition) the themes identified from each interview were consolidated into a master document for all interviewees from each region: for example, emergent themes for all six German interviews. This provided the basis for analyzing cross-case themes and patterns. For example, the consolidated thematic list brought together diverse interview conversations about the same issue, allowing comparison and discussion of commonality and differences between subjects. Furthermore, it exposed categories that were unique to only one interview – these extreme cases also provided a basis for commentary. After this stage, findings were reviewed and written up in two ways: as a series of profiles of individual entrepreneurs, and a thematic review assessing all six interviews at once.

One major comment arising from this research to date is the role of narrative and use of (English) language in revealing insights into the attitudes and perspective of each entrepreneur. A summary of each interview is provided in Table 6.

Prior to this analysis, a pilot interview (for A1) was conducted and analyzed to ensure this research design was practical and to identify any concerns. In addition to the guidance from

Thompson and Cope (Thompson, Locander et al. 1989; Cope 2011), this pilot exercise refers to guidance outlined in Chapter Five of the reference work on IPA by Smith et al (Smith, Flowers et al. 2009: 79-107): the key components of this are outlined in Table 8 below. This pilot exercise was reviewed with doctoral supervisors and advisors before embarking on the full range of interview and analysis work.

Overview	Interpretative Phenomenological Analysis is characterized as an iterative and inductive cycle. Multiple readings and note-taking stages are proposed to familiarize the researcher with the data. This is time-consuming and intended to take place over an extended period of time, reading, leaving and coming back to the material.
Reading & re-reading	In line with Cope’s comments regarding “immersion” into the data, a number of readings is suggested. The detailed attention needed here comes with a warning: “Sometimes the process of beginning analysis is accompanied by a feeling of being overwhelmed by ideas and possible connections.” (Smith, Flowers et al. 2009: 82)
Initial noting	Exploratory comments represent comments on significant interest in the text and could include (1) descriptive comments, (2) linguistic comments, and (3) conceptual comments. In addition to providing a direct commentary, these comments are also useful in the subsequent step of identifying themes. Furthermore, deconstruction techniques such as reading backwards or recording commentaries aloud can assist in focusing on the text.
Developing emergent themes	“Themes are usually expressed as phrases which speak to the psychological essence of the piece and contain enough particularity to be grounded and enough abstraction to be conceptual.” (Smith, Flowers et al. 2009: 92). In the literature, themes are likely to be identified as much from the researcher’s exploratory comments as the transcript itself, and thus emergent themes might emerge as a natural next step from prior notes.
Connecting emergent themes	Techniques here include abstraction (identifying patterns and a ‘super-ordinate’ theme), polarization (looking for differences rather than similarities), contextualization, numeration (identifying the frequency of theme occurrence) and function. This step attempts to connect and group themes for subsequent summarization and write-up.
Moving to the next case	IPA indicates that each case (or interview) be taken as an individual unit before wider comparisons and cross-case review is conducted. Therefore care should be made to bracket any assumptions or crossover knowledge from one interview, when analysing the next.
Patterns across cases	This can be represented graphically or through a nested table structure, pulling cross-case themes into focus while making reference to the supporting cases for each.
Deeper levels of analysis	Beyond the level of analysis outlined above, there may exist a deeper psychological level of meaning based on metaphor or even psychoanalysis. This can be seen to go beyond a ‘hermeneutics of sympathy’ in which the researcher understands the subject, to a ‘hermeneutics of suspicion’ in which the researcher is on guard for hidden meanings in the text.

Table 8. Stages in IPA Analysis Adapted from Smith Textbook on IPA Methodology and Practice (Smith, Flowers et al. 2009)

The IPA-based approach brings to mind the subject of ‘discourse analysis’. In general, ‘discourse’ covers communication (verbal, non-verbal, visual, etc.) between individuals. Although discourse analysis can be seen as different from IPA, we can glean much from it: a 2003 article entitled “Discourse Analysis Means Doing Analysis” (Antaki, Billig et al. 2003), suggests that this technique is really a part of a wider analytical fabric. The field of discursive psychology would seem to offer much to the study of attitudes and motivations of entrepreneurs: a detailed examination of language in interviews with people who persuade, articulate vision and construct new ventures (entrepreneurs) appears to be highly appropriate. Willig suggests that in her discourse analysis “language was seen to construct versions of social reality, and it was seen to achieve social objectives.” (Willig 2008: 161). As a result, discourse analysis should be considered suitable for inclusion in our research. Antaki outlines six ways in which analysis can fall short of ‘discourse analysis’ (see Table 9) and these provided a solid *aide memoire*: they were specifically reviewed after the analysis of each interview.

	Potential Shortcoming	Commentary
1	Under-analysis through summary	Summary is essential in qualitative research, but the level of summarization is critical. Too much and themes of substance may be ignored.
2	Under-analysis through taking sides	The IPA approach of letting the interviewee lead the conversation is valuable here. In entrepreneurial failure, “taking sides” on a subjective issue may distort or adversely affect the evaluation.
3	Under-analysis through over-quotation or through isolated quotation	The analyst fails to get beyond the text or texts. Under-analysis through over-quotation is often revealed by a low ratio of analyst's comments to data extracts.
4	The circular identification of discourses and mental constructs	This occurs when, for example an analyst claims that discourse shows evidence for the existence of a particular psychological state or process, such as 'attitude', and then explains the production of that discourse in terms of the existence of the attitude.
5	False survey	The qualitative equivalent of an unrepresentative “representative” sample. When analysis makes over-generalized claims from a specific group to a wider community.
6	Analysis that consists in simply spotting features	Superficiality. Rather than simply listing specific features, “good analysis always moves convincingly back and forth between the general and the specific.” (Antaki, Billig et al. 2003: 7)

Table 9. Potential Shortcomings of Discourse (and General) Analysis (adapted). (Antaki, Billig et al. 2003)

The techniques of discourse analysis will assist in taking account of the language and terminology arising from interview transcripts. Phillips and Hardy suggest: “Discourse analytic approaches share an interest in the constructive effects of language and are a reflexive – as well as an interpretative – style of analysis” (Phillips and Hardy 2002: 5). This reflexivity is important: in the interviews, entrepreneurs frequently talk about themselves, as well as their experiences.

The general topic of thematic analysis also requires examination, particularly how themes are identified from this analytical work. Using guidance as outlined in Table 7 and Table 8, the process of analysis to identify emergent themes involves multiple readings of the text, allocation of categorization codes to the text, and then a re-working of the text to produce a thematic version of the interviews (‘thematic codes’), illustrating how points in the interview relate to codes, and how these in turn group together in emergent themes (Saldana 2009: 12). A graphical representation of this process is shown as Figure 12.

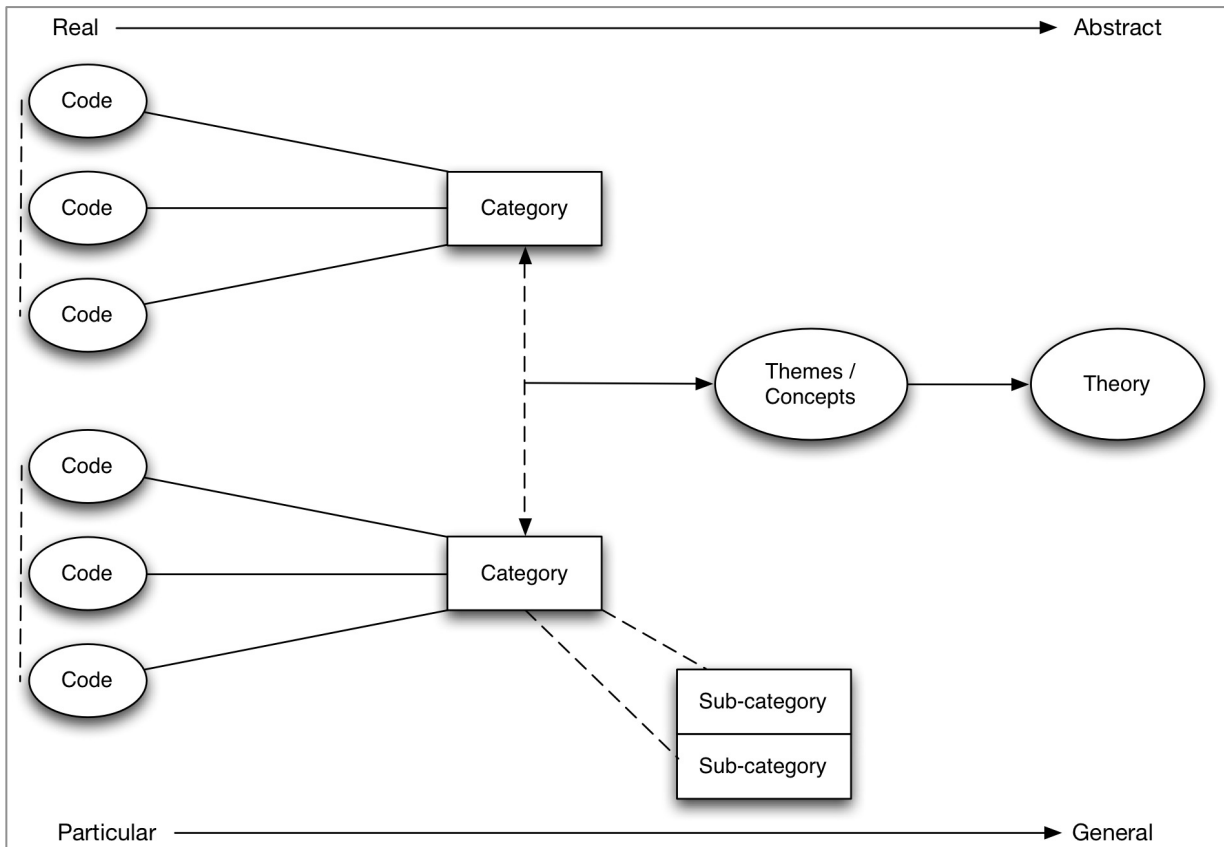


Figure 12. Emergence of Themes from Codes (Saldana 2009)

In the present research, themes emerged through the manual process of taking notes and continual summarization and re-assessment of these notes to develop category codes (thematic codes), along with comments. Thematic codes and themes can be summarized in the following five groups: Business Context; Language and Narrative; Environmental Factors; Personality Characteristics; and the Entrepreneurial Response. Each of these is discussed at length in subsequent sections, along with analysis by sub-category and supporting evidence and quotations from interviews. Looking at this from another perspective, some themes occurred more frequently than others, and increased frequency reflects a higher chance of importance and commonality to the analyst. Furthermore, the nature of these themes may be categorized in an alternative way, revealing themes that reflect personal (psychological) or social (environmental) issues, as well as themes that describe retrospective and reflective viewpoints versus prospective

and future-facing themes. In summarizing the analysis in chapter 5A, 5B and 5C, both of these categorization schemes have been used.

Observations on Overall Research Design

A number of methods and techniques have been used here, though primarily IPA. The overall intention remains to examine and understand the stories of entrepreneurs in order to draw conclusions about their attitudes to failure. In this respect, we deploy whichever techniques are appropriate to reveal insights, but should remember that: “It is in the struggle between different approaches that we learn, and from the diversity and ambiguity of meaning; not through the recitation of a presumed uniformity, consensus and unity, given in a way that requires unquestioning acceptance.” (Clegg and Hardy 1996: 8).

CHAPTER 5: ANALYSIS OF INTERVIEWS

This analysis phase involved several months of manual reading, coding and collation to produce findings which cover: the reasons and context for failure; how the use of language reveals attitudes and trends; environmental and psychological factors at work - and reflections on learning and opportunity identification. However, it is useful to remember in all this detail that this research can be reduced to answering three simple questions: what happened when these entrepreneurs failed, what did they learn and what did they do next?

In the following three chapters, analysis of interviews is presented for each country in turn: Chapter 5A outlines analysis for interviews in Munich, 5B for Cambridge and 5C for Silicon Valley. Each of these chapters documents the Interpretative Phenomenological Analysis (IPA) of six interviews, including (1) a summary of each case outlining some background, context and reasons for failure as well as a brief personal profile and commentary on each individual subject; and (2) a thematic analysis of each subject, including a cross-case analysis of the regional cohort. Each interviewee is anonymous, and labelled as follows: D1 – D6 for German subjects, B1 – B6 for British subjects, and A1 – A6 for Americans. Interview length varied from 50 to over 120 minutes. German interviews tended to take longer and therefore more coding took place (more thematic codes in total) in the IPA analysis for German subjects (Table 10). The overall number of unique thematic codes in each region was more consistent between the three regions - a range of 79-92.

	Munich, Germany	Cambridge, UK	Silicon Valley, USA
Total of thematic codes identified	1,178	894	873
Number of unique thematic codes identified	79	78	92

Table 10. Numbers of Total Thematic Codes and Unique Thematic Codes Identified, by Region

This analysis forms part of the overall IPA process defined in Chapter 4 and visualized in Figure 10 and Figure 11.

Before embarking on this analysis, a clarification: when entrepreneurs discuss their venture ‘failure’ (including the business context), these subjects are all habitual entrepreneurs, meaning each of them has founded multiple ventures and at least one of these ventures has failed. This could be their first startup; their second (or subsequent) venture, or in some cases a combination of successes and failures within a number of startups. The analysis contained herein relates to one or more failures, according to the various experiences of the individual entrepreneur, but they all describe a common experience: that of (at least) one of their ventures having failed.

CHAPTER 5A: ANALYSIS OF GERMAN INTERVIEWS

In this analysis, as outlined in Figure 13, each interview transcript was analyzed according to the process described in Chapter 4 and summarized in Figure 10, leading to a written profile of each interviewee (background, context and personal profile, as documented in Table 11), followed by a thematic analysis which is then further reviewed to ‘enfold’ relevant literature with references to key themes. The detailed process for thematic analysis is further explained in Figure 11.

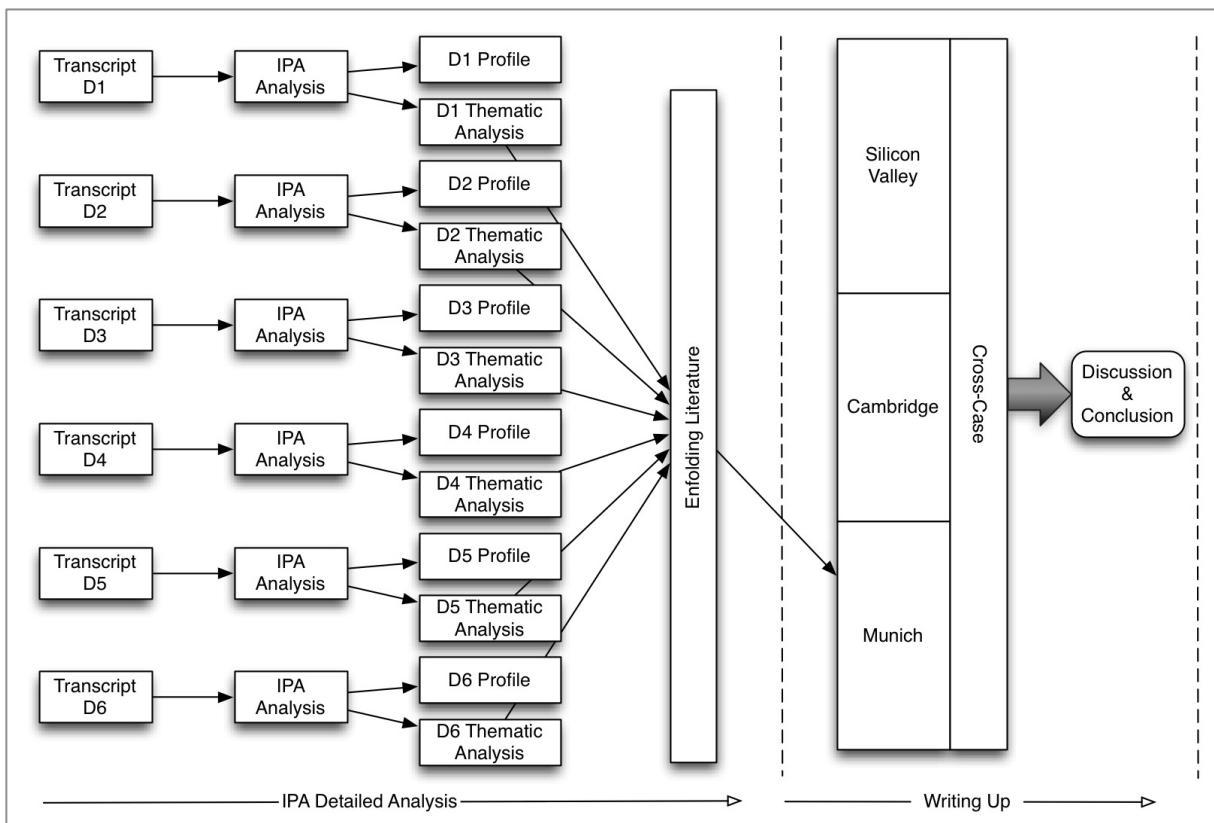


Figure 13. Process Schematic Outlining the IPA Analysis and Outputs for German Interviews. Each Interview is Analyzed using IPA Methodology before Performing a Cross-Case Thematic Analysis (within each Country, in this case Germany)

Summaries of German Interviews

PROFILE of D1. American-born male, early-50s.

D1: Background. D1 is an American-born graduate of Wharton Business School who has lived in Germany for decades. He started his first software company ('spontaneously') in Vienna in 1983 before moving to Munich. This company struggled before closing in 1996. After founding multiple software firms in Germany, he successfully sold one venture, with mixed consequences. D1 now runs an Entrepreneurship Centre and lectures to entrepreneurship students.

D1: Context. D1 started his first venture after graduation, confident he could achieve anything: he chose a nascent industry (software) in a difficult location (Vienna). Starting with inadequate resources, he trusted friends to help: "not a classically bright move." He sees his failure as a result of bad luck and business factors. His sales director embezzled money, leaving unpaid tax liabilities to German authorities, which treat this as his personal liability. To avoid personal bankruptcy, D1 worked for three years to pay off €850,000: his reward was 'getting back to zero.' "It was eight years of failure, followed by three years of figuring out how to do it and fixing the failure." (D1). Despite his naïve start, he has a strong sense of self-efficacy and is skilled at building companies.

D1: Personal profile. D1 has a positive personality. In his lectures he asks students what is the key word in the phrase – 'Every breakdown is the opportunity for a breakthrough'. The correct answer, he says, is 'every.' He recommends they identify the positive challenge in all that goes wrong, rather than panic. He returned to Germany, rather than avoid his debts; he split a successful company and took on the less-profitable part; and he re-built several companies while supporting a growing family. He reflects on personal cost and self-doubt. "It's always wonderful to hear about how other people fail. But in the middle of the failure, it's really miserable." (D1).

PROFILE of D2. White German male, mid-40s.

D2: Background .D2 is a physicist who transformed university research in magnetic refrigeration into a commercial venture with ten collaborators. The firm ended in corporate bankruptcy. Unaware that his finance manager was embezzling funds, he became liable for unpaid tax and social security. He took ten years to clear his record. With his wife, he purchased the assets of the bankrupt company and started again, resulting in a trade sale five years later. He now advises multiple ventures in Munich.

D2: Context. D2 raised three million euros, which was later embezzled. In the creditor-led bankruptcy, tax obligations passed to D2 personally as Geschäftsführer. The finance manager was later imprisoned. D2's company team was too large with eleven co-founders and ten investors, leading to disagreements about technology and strategy. No system was actually produced. When D2 purchased the assets and restarted the phoenix company, a set of specific (funded) customer requirements led to the development of a new product in a new market and the company was sold in 2007. [A 'phoenix' company is one in which an original failed firm is 're-born' as a new venture, typically with similar assets, plans and staff].

D2: Personal profile. D2 is analytical and scientific. His language is unemotional and straightforward, but he has faced traumatic business challenges including bankruptcy. Being a victim of fraud makes it difficult for him to trust advisors and partners: he is cautious and sensitive to changes in circumstance, yet he has learned much and feels he prevailed due to self-confidence and clarity. Although the stigma of failure and bankruptcy is common in Germany, he feels it does not apply to him. He has dealt with aggrieved investors clearly and directly at the most difficult times. He has a strong sense of self-efficacy, and believes he has done nothing wrong. He does not seem angry about his experience and the views of others do not appear to be important: "I don't think there was any schadenfreude at all." (D2).

PROFILE of D3. White German male, mid-40s.

D3: Background. D3 trained as a PhD physicist in Munich. After a number of student entrepreneurial businesses he started his first software company with several co-founders. Despite early deals with German content providers, the

company declined in the technology crashes of 2001 and is now dormant. D3 became director of one of Munich's entrepreneurship centres.

D3: Context. D3 is unsure why his business failed to grow. He analyses contributory factors in the interview, but remains uncertain why his business failed. Timing was a factor: in the nineties' software boom companies were funded easily at inflated valuations and when D3 tried to expand, the funding market had disappeared. In his target market, sustainable revenue models were unclear.

D3: Personal profile. D3 has entrepreneurial skills and experience. He ran a successful student agricultural business, importing mistletoe into Germany. After working in large corporations he started his own firm at the height of the dot-com era. He learned from this experience but regrets its failure. In his current teaching activities he tries to simulate real-life rejection and failure for students, believing that Germans find this difficult. He suggests re-education is necessary for German economic growth: instead of looking for 'another SAP' he thinks innovation emerging from new business models, and experience of failure is increasingly important.

PROFILE of D4. White German male, mid-50s.

D4: Background. D4 is the son of a Regensburg German professor and spent his early career working for US software companies. His post-graduate degree in Texas helped him develop excellent English language and literature skills. Working in start-ups since 1996 including Netscape and Commerce One, he later founded several start-ups. The first venture failed and consumed all his finances; a second start-up took ten years to reach sustainability.

D4: Context. D4's first venture suffered from poor planning and over-reliance on his own finances. He believes his mobile technology was too early for the market and platforms had not yet matured. His second venture took a decade to develop and his equity was heavily diluted. He is proud to have built a sustainable business but regrets there was no exit event. He spent years making little money from his company and debates whether or not this can be described as a success.

D4: Personal profile. D4 grew up listening to American radio and would prefer to be American. He has spent much time in the USA and thinks that "going to work for Netscape ... was just the greatest thing ever." He is spontaneous and intuitive in evaluating opportunities: his first company involved investing his own money quickly, without planning. He articulates lessons from his failed ventures but is keen to start another venture, even if it means risking his personal wealth.

PROFILE of D5. White German male, mid-40s.

D5: Background. D5 is an engineer who applied his doctoral work into his software company (now trading for 23 years). He has almost closed the company three times: D5 is not an obvious 'failed entrepreneur' but he believes if he had lived in the USA he would have closed the company. His company endured several multi-year periods of disaster and recovery. He suggests there are economic cycles: in the automotive industry his experience makes him better prepared to deal with future downturns.

D5: Context. D5 experienced three catastrophes in his software venture: the first through economic recession (early 1990s) and over-dependence on key customers; the second arose from a bad merger involving advisor misrepresentation that brought his company to the edge of bankruptcy; the third came from the automotive industry contraction in 2008. These events forced D5 to the brink of total failure each time: he thinks that in America these would have resulted in bankruptcy and a fresh start, but the German environment offered no choice but to persist: "to give up would have been far too expensive. So there was only one way – to fight to survive."

D5: Personal profile. D5 speaks in a neutral fashion: he is analytical, dispassionate and rational. He is not angry about his experiences but is not overtly optimistic either – he responds to setbacks with tenacity and realism. He describes his strong sense of responsibility to customers, investors and employees and is aware of the economic cycles that inevitably impact a business, feeling he has learned to be more prepared for failure in future.

PROFILE of D6. White German male, mid-50s.
D6: Background. D6 is a medical scientist who won a business plan competition in Munich: he ran this firm for a decade before it collapsed and he went bankrupt. Subsequent ventures in software have also failed. He has suffered significant personal cost including marriage breakdown and hospitalization from 'burnout'. He is trying to resurrect his career in Germany but hopes to move to the USA, which he believes offers more opportunities for visionary technologists.
D6: Context. D6 started his company in biotechnology and moved into software. His first venture failed for multiple reasons: it was geographically spread-out (Munich and San Diego) and lacked focus; it was under-funded, and required too much research without investment. When conditions worsened, personal differences emerged between D6 and his investors. The company never recovered and assets were sold to a competitor in which one of the investors had a (conflicting) material interest. D6 ran an early 'virtual company' using technology for collaboration between motivated scientists. It failed. After a difficult and stressful winding up process, D6 suffered major family and health problems. In recovery, he has started several ventures, and is seeking funding.
D6: Personal profile. D6 suffered severely as a result of his failed ventures. As well as personal costs (marriage breakdown and health problems) he has difficulties finding employment or attracting investors. He believes there is a bias (stigma) against failed entrepreneurs, identifying groups of individuals in Switzerland and Germany who have not found work since their companies failed: they are restricted to consulting contracts from supportive friends. D6 is keen to participate in research into entrepreneurial failure: he believes this represents a significant psychological issue in Germany - more studies are needed to reduce stigma and encourage innovation. He yearns for an era of collaboration in which entrepreneurs can harness technology to leverage the skills of many contributors, rapidly developing new ideas (services, drugs) at lower costs.

Table 11. Summaries of Six German Interview Subjects, covering Background; Business Context and Reasons for Failure, as well as Personal Profile and Commentary

Thematic Analysis Arising from IPA – Germany

In the overall German analysis, a total of 83 thematic codes (themes) were identified with a total of 1,178 references to these themes across the six interviews. A summary of the most frequently occurring themes is provided in Figure 14, along with an approximate mapping of these themes into four categories. The mapping in Figure 14 is intended to indicate the main themes arising from the German analysis; the relative frequency of occurrence of each theme (themes in bold occur more often); and whether these themes are personal or social, and retrospective or forward-looking in nature. This allocation of themes into four quadrants is not based on prior literature, but is reflected in the summary section of the research design: however, Figure 14 ultimately reflects the author's subjective categorizations of themes arising from the analysis.

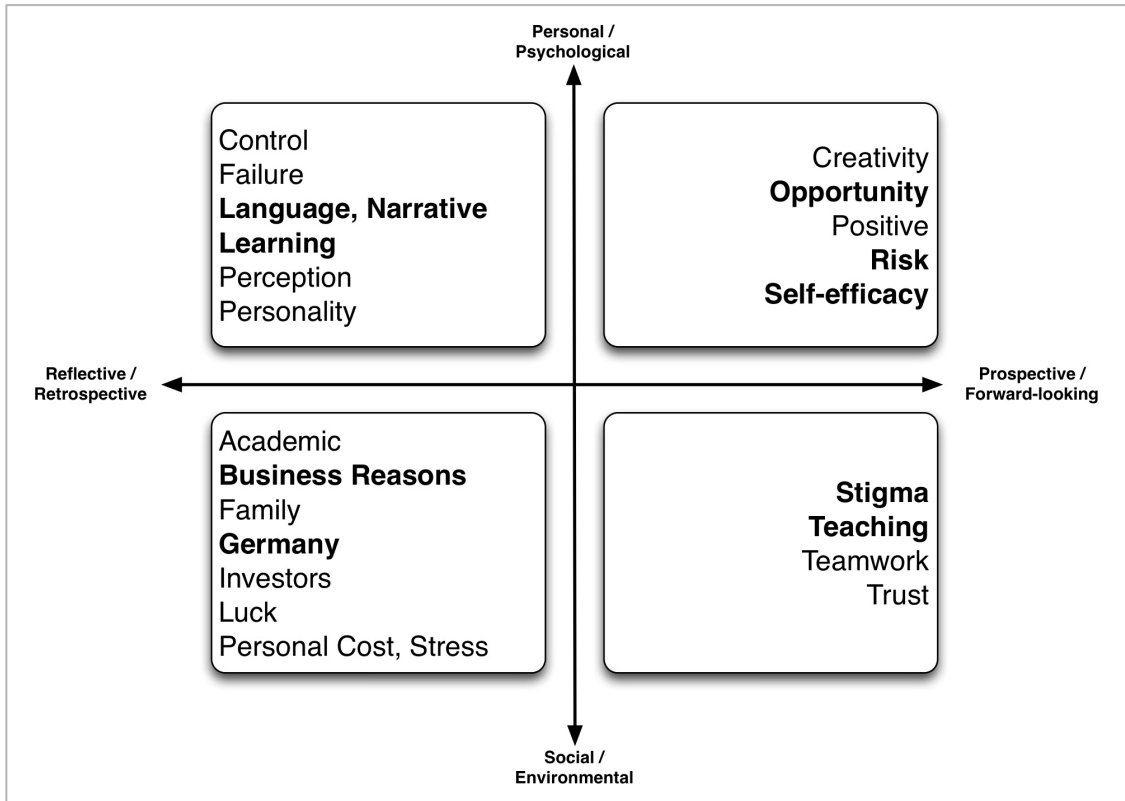


Figure 14. Mapping of Most Frequently Occurring Themes Emerging from IPA Analysis of German Interviews

A narrative account follows of these themes, combined with extracts of text from the interviews and relevant references to ‘enfolding’ literature to add context from prior research to the interview findings.

Business Context

Business Reasons: Reasons for failure and business context. D1 and D2 describe how embezzlement and the German legal system led to the failure of their ventures. As a consequence of an undetected fraud within the business, “we had been insolvent for more than six weeks, [and] had pierced the corporate veil and we were personally liable.” (D1). D2 also became personally liable for the actions of others (Seung-Hyun, Peng et al. 2007; Lee, Yamakawa et al. 2011) and it took ten years to escape the restrictions of bankruptcy. D5 experienced this when a merger went wrong: “from a legal standpoint I was ... guilty for all the weaknesses and gaps of

my new sister company.” (D5). Over-dependence on key customers is a key factor for D2 and D5. D2 built complex products at high prices for technical buyers and D5 depended on a small market. Both were exposed to economic downturns. Other reasons for failure include a lack of focus; underestimation of the technology challenge (D2); market timing; lack of capital (D3); involvement in too many projects, and poor business planning (D3, D4). (Bruno and Leidecker 1988; Richardson, Nwankwo et al. 1994; Pretorius 2008; Gulst and Maritz 2009).

D3 remains puzzled why his business failed. He and D4 started their companies at a time of high valuations, but little planning in terms of technology or finance. Most interviewees focused on their companies but D3 and D4 were involved in other simultaneous projects: when D3 advises new ventures he now requires them to generate immediate revenue, avoiding the ‘dead zone’ where further investment is needed when most vulnerable. D5 recalls other reasons: recession, customer failure, negative consequences of poor mergers and a global industry decline.

Most of their ventures ran out of funds and subsequently D2, D3, D4 and D6 have followed a lean-startup model, developing ideas in collaboration with others, validating their models at each stage. D5 sees funding as his responsibility: “I was ... unable to convey to [my investors] the promise ... of some of the projects we were pursuing.” (D5). Personal conflicts made matters worse. D6 recalls arguments with investors and advisors: “there was a lot of unprofessionalism in the communication, validation and decision-making processes.” (D6). His funding requests were declined and recriminations stifled further progress. D6’s plans were perhaps over-ambitious, tackling complex technical challenges in a demanding organizational environment.

Definitions of failure (and success). D2 believes definitions of failure are less important than learning lessons and being honest with oneself: “I was always of the opinion that failure helps in the end to do it better the next time. You just have to be honest.” (D2). D3 does not regard his venture as a failure: it is dormant but still exists, and he still sees potential for resurrection. This recurs in the German interviews – higher inclination towards company survival, even on life support. D3 is proud of the patent obtained by his startup: pride in technology is clear in German interviews and is perhaps perceived as more important than business success.

D4 says that although his first venture folded, it was funded by IPO proceeds from a dot-com company that collapsed: he asks himself ‘which was the greater failure?’ His ‘success’ came after years of no salary, during which he could have been a high-earning executive at Siemens. He concludes that failure represents a subjective shortfall against expectations. D4 re-started a failed company to avoid bankruptcy, with its negative social impact. He regards failure as a personal and a social construct (McKenzie and Sud 2008), and if perceptions of others are manipulated in certain ways there might be no stigma. The interview with D5 stretches the concept of failure further. He has run the same company for 23 years and believes it has failed at least three times, but he regards his recoveries as a necessity in Germany where the cost of failure (and bankruptcy) is so high.

Germany. D1 regards German attitudes to failure as deeply rooted. “In Germany, ... the whole culture had one of the great failures of modern day with World War II and with the Holocaust ... So there is this desire to do the right thing.” (D1). Perhaps the obverse of a desire to get things right is a fear of failure and this is embedded in the Bavarian culture: “It's the 'haben net, können net, gibßt net'. In ... Bavarian that means, 'we don't have it, we can't do it and we never will do it.'” (D1). He goes further, saying Germans actively avoid risk: “People spend a lot of time avoiding failure here... it takes a lot of time and energy to avoid failure.” (D1).

D2 explains attractive German state funding sources such as High-Tech Gründerfonds. He obtained funding (around €3,000,000) through government grants with few strings attached, and views the grant process as undiscerning yet he remains a happy beneficiary. D3 criticizes the German emphasis on patenting: he describes a generous Bavarian funding scheme but criticizes how commercialization was forbidden. D6 describes German VC as “restrictive,” providing not enough to generate growth.

D3 suggests Germans approach business situations differently to Americans. Germans will say: “First I prove. Then let's see ... [if] I can survive for the first year.” (D3). In contrast, Americans act first and think later. D3’s incubator students are now required to generate revenues in one week to demonstrate viability. D4 suggests Germany is strongest when tackling difficult technology, but this engenders arrogance: “We didn't really think hard about whether that was going to be a viable business ... We were fascinated by the technological challenges.” (D4).

D4 describes how the concept of 'selbständig werden' (becoming independent) is highly regarded and 'makes parents proud of their offspring' in Germany. However, taking capital from investors is viewed as risky and undesirable. He considers the German emphasis on sustainable financial and social value: success does not mean flipping a company for a profit but long-term impact. German attitudes to business lack ambition and flexibility: after the freedom of a startup, D4 thinks re-adapting to corporate life would be difficult. He also describes the German stigma attached to 'walking away'. Perhaps entrepreneurs persist longer with ventures because this is more socially acceptable than giving up. This relates to legal terms too: "to give up would have been far too expensive. So there was only one way – to fight to survive." (D5). This perception of Germans as persistent is supported by subsequent GEM research (Brixy, Hundt et al. 2010).

Observations Regarding Other Countries. American-born D1 describes how Germany compares to other countries. He sees a strong difference in outlook: "America does have a very, very strong culture, ... the culture of the new." (D1). The German distrust of the new produces an aversion to risk and a fear of failure, whereas in the USA "if you don't fall down you're not running hard enough." (D1).

D4 believes his personality is more American than German. "I've always wanted to be an American." (D4). He considers risk-taking as un-German, feeling more at home in the USA: "going to work for Netscape ... was just the greatest thing ever." (D4). He also describes how the *Neuer Markt* (German technology-rich stock market) encouraged a wave of optimism among hitherto conservative German investors, but this was destroyed by the 2000 market crash.

Analytical and Academic Perspective. D2 is analytical in describing his experiences. He marries and plans to restart his company on the day he files for bankruptcy. D2, D3, D5 and D6 obtained scientific doctorates and describe their analytical approach to problems and opportunities. However, D4 regards himself as intuitive: "I've never been very analytical and very systematic in terms of decision-making." (D4). D5's doctoral research involved the study of how to 'organize decentralized dynamic processes' and this may have helped in planning his recovery from failure. "I believe ... in a clear analysis. Sometimes if you get involved and know people, then you add a sympathy factor." (D5).

D6 is a medical researcher and regards academic hierarchies as hostile to innovation. This drove him from medicine to software, which he felt might accelerate the development of new technology. He is critical of academics' closeness to industry, establishing an inaccessible elite. Perhaps this makes him angry (or jealous), but he still submits academic papers to the elite journals he claims to dislike.

Phoenix Companies (Restarts). D2 endured corporate bankruptcy and subsequent personal liability. During this ordeal, his VC wife bought the business assets and IP to establish a phoenix company. It is perhaps surprising that the German legal system, with strong creditor protection, enabled such a creative re-start. D4 admits that his business never closed: to avoid the stigma of bankruptcy (Fossen 2011) he re-purposed and re-named his original company and raised more funds. Despite his confidence, fear of failure was important: re-starting his venture was “a way to salvage, if you will, ... the ego, the reputation, the not having to go look for a job.” (D4).

Collaboration and Teamwork. D2 was one of eleven collaborators: after bankruptcy he was left with all the responsibility and had no qualms taking all the equity as he was taking all the risk. D3 is engaged in collaboration through his incubator and teaching responsibilities. As a CEO he noted the lack of common vision in his first (failed) venture: collaboration, he learned, requires more than good intentions.

D5 was content to be part of a founding team but his co-founders quickly left. All of D6's ventures involve strong collaboration as a guiding principle: he believes drug discovery processes must be replaced by a faster, collaborative approach. German investors fail to appreciate this model, as it is difficult to measure and control (D6). This puts Germany at a disadvantage: German investors want to create the “next SAP” rather than generate a number of growth opportunities (D3). D6 has been damaged by this go-it-alone approach: one of his six collaborators requested sole IP rights at the last minute, killing his venture.

Investors. D1 tried unsuccessfully to raise money from VCs but he remains positive. “Venture capital was certainly the best thing that never happened to me.” (D1). He teaches entrepreneurs to expect no external funding and rely on customers from the start, a lesson also taught by D3 and contemporary literature (Blank 2005; Ries 2011; Blank and Dorf 2012). D2's angel investors

felt aggrieved at the failure of ‘their’ business, reflecting perhaps their naïvety but also D2’s inability to manage investor expectations. Liability rested on D2 personally: “The investors were all pissed. You always learn how people really are when things are bad.” (D2). D4 criticizes Munich VCs: they stop investing when conditions tighten but continue hearing entrepreneurs’ pitches. To an entrepreneur this misleading level of interest is encouraging: D4 spent too long chasing money that was not there.

D5 secured last-minute VC investment, rescuing him from personal bankruptcy after a bad merger beyond his control. D6 experienced other difficulties: he received a million Deutschmarks in business plan funding, but later failed to secure additional funds. He believes that subsequent investor actions were illegal, but minority investors were powerless and could not support him.

Risk. D1 and D4 started with enthusiasm but little planning to mitigate the risk. D2 sees risk in terms of what can and cannot be controlled. In re-starting his failed venture, he controlled the situation and thus minimized the risk. This suggests he alters his plans to take account of risk: his world-view factors in what might go wrong, making him clear and confident about tackling various scenarios, as in real options theory (McGrath 1999; Cave and Minty 2004; Klingebiel and Adner 2012).

D3 describes the risk levels in large companies (low), startups (high) and his current academic role (minimal). D4 spent ten years slowly building his company and identifies the risk of balancing expansion with consolidation (growth management): he knows that failure is a possible outcome of each growth step.

D4 describes his sense of responsibility to employees who he persuaded to leave good jobs. After extinguishing his initial funding, his employees refused to believe he had no more personal funds. He relied on the support of his co-workers who had a very different risk perception, and they left him to return to large companies. He describes such risk aversion as very German in nature. D4 sees things in simple terms, with reward (upside) linked to risk – he lived without salary for years and there was no large exit at the end, but that was a risk he was happy to take.

At the time D5 started his company there were few entrepreneurs around: he was seen as an “interesting animal, something for the museum or for the zoo” (D5). He feels the risk of failure in Germany is higher than elsewhere due to the personal tax liability when a company fails (Metzger 2008).

Luck and Serendipity. D1 believes in the impact of luck and chance on one’s life (Cooper, Woo et al. 1988; Liu 2010). He traveled 4,000 miles to ‘prove himself’ and start his own venture and the tragic death of his father coincided with a time of significant business turmoil. Unpredictable events change the course of one’s life: “I often say failure comes in the strangest ways.” (D1). D2 feels unlucky to have been defrauded but fortunate to extract the assets and restart, and lucky to sell his company in 2007 before a major financial crash. Furthermore, his later success stemmed from bidding an excessive price to a customer, winning the deal and building a new product.

D2 believes he put himself in the position to be lucky, as does D3, who became a university director after applying and failing three years earlier. D4 met his future angel investor through frantic networking, believing luck emerges from unlikely sources. D5 sees himself as lucky despite multiple collapses in his company and D6 feels fortunate to have won a million-euro business plan competition, although this ‘easy money’ made subsequent investment more challenging.

Pragmatism and Realism. D2 recognizes the technological challenge faced by his company, and suggests Germany is a good place to tackle difficult problems. He remained calm and realistic during periods of intense pressure, dealing openly and fairly with lawyers to develop relationships that eventually brought rewards. D5 emphasizes trust and integrity, and is the only German interviewee to talk explicitly about ‘values’: without such principles he feels he would be unable to face such business challenges. He remains close to his childhood friends and his supportive family, which carries him through difficult times.

Personal Cost. D1, D5 and D6 suffered high personal costs. For three years D1 worked to repay debts and ‘get back to zero.’ He pursued legal actions against former friends and experienced “tremendous personal sacrifice.” (D1). D4’s wife supported him financially while he gained the

confidence of investors and customers, working for years on no salary. Over fifteen years he says he could have earned more in a Siemens executive role. D5 endured extended periods close to corporate extinction: "I would have lost everything." (D5). Sleep is important: his problems "created one or two nights where I did not sleep a lot." (D5).

D6 has perhaps suffered most from his failed venture: "It was very traumatic and it lasted until the last month when I lost my money. In line with that my second marriage broke up." (D6). His wife left him and their young children, and he was hospitalized with exhaustion. He is keen, however to participate in this research and believes lessons from his experience may benefit future entrepreneurs. His energy levels dropped to "zero" when his company collapsed. He recalls a contemporary in Munich who experienced similar personal cost, spending ten years working off loans incurred without his knowledge. D6 now has no capital or reserves and is currently unemployed.

Blame. Despite clear external causes of failure (fraud, embezzlement), D1 does not ascribe blame in his interview, but focuses solely on the consequences. D2 regards the fraud he suffered as a catalyst for failure but does not blame anyone. D5 feels misled by advisors: in his words, once damage is done he must deal with the consequences not pursue the villains. D6 allocates blame for his first failed venture to one particular investor (Rogoff, Myung-Soo et al. 2004). He feels betrayed by legal advisors who forced him to close the company then excluded him from further participation, damaging his reputation and discouraging other investors from backing him further.

Control and Conflict. D1 was a victim of embezzlement, leading to personal tax liability and near-bankruptcy. D2 describes how loss of control through anger or panic is detrimental to plans for success, and recognizes a direct connection between responsibility and what can be controlled. He realizes too that "being nice" to people like lawyers, tax officials and bankers at difficult times has a positive effect. D5 desires control so he can steer his destiny, but accepts the situation when he has no control (Mueller and Thomas 2001). He describes negotiations with investors who control the situation: "At this point in time it was crazy ... knowing that you are already dead or mostly dead and still going for a reasonable price." (D5).

D6 describes the frustration of losing control. “As long as the company was alive, basically I had the relationship with the investors” (D6), but he lost access to stakeholders and observed the destruction of his own firm, partly due to a consultant he describes as bullying and emasculating.

Language and Narrative

In the German interviewees, use of narrative analysis of language (Harmeling 2011) revealed issues and themes that were not necessarily explicit in the text.

Language. D1 is a successful lecturer, fluent in German and English using real-life stories in his lectures. Describing a failed deal he uses short sentences to build dramatic tension. He builds the narrative up to a punch line using questions to draw in the listener. He invents dialogue to make his story more immediate, although one could suggest such total recall is impossible. He uses irony and humour when describing differences between America and Germany. He is self-mocking and disarming, describing his first ventures as “not a classically bright move” and suggesting he “wasn’t smart enough” in business dealings. (D1).

D2 tells his story in factual and unemotional language, and uses humour without pausing for response when describing how he filed for bankruptcy on the day of his marriage. D3 is understated, regarding investors taking his company down-market as a “negative connotation.”

D4 uses positive language to convey enthusiasm. He refers to “organic” and “intuitive” and describes the “bio-rhythm” of companies, a holistic, interpretative view of cyclical firm development. He chooses dramatic, emotive terms: success means he “puts bread on the table” for employees; his failures are not restarted but “salvaged” or “rescued”. D4’s mobile software company was an early ‘collaborative social network’ in 2001 (before Facebook), suggesting new ventures require new language to explain hitherto unknown concepts. Perhaps success or failure depends partly on entrepreneurs’ ability to describe their innovation in contemporary terms (McKenzie and Sud 2008).

D5 is unemotional in his use of language: people he fires have “relinquished their responsibilities.” He uses muted language and there is no anger or laughter in the interview: he describes long, relentless negotiations with investors that required calmness and persistence. He

talks openly about his supportive family and his desire for economic success while retaining honesty, trust and integrity. In contrast, D6 is somewhat bitter about his firm's collapse: he dismisses an advisor as a "local pharmaceutical self-made expert," and describes investors' "revenge" against a fellow entrepreneur. He also uses destructive terms: a subsequent venture "was just killed by the Technology Transfer Officer." (D6).

Narrative. D2 tells his story dispassionately, while others (D1, D4) are compelling storytellers. D2 explains complex science (magnetic refrigeration) in simple terms, and this skill of simplifying complexity for a non-technical audience might represent a valuable asset for an entrepreneur. He is able to reflect unemotionally on multiple perspectives. Describing early investors: "I bought the assets by myself in the end. ... Why would you make them shareholders if there is nothing to win." (D2). He describes how others react but perhaps cannot empathize with them. D4 shifts to the present tense to communicate the immediacy of his first startup. "It's the tail end of the '90s. It's the entrepreneur vogue. It's the first time in Germany that people start companies left and right, venture capital easily available." (D4). He builds dramatic tension by recounting various companies, talking rapidly in short sentences, and using questions to confirm understanding and retain engagement. D5 uses no such techniques: his story is told simply, with little embellishment.

Distractions. D2 steers the conversation away from sensitive issues. When asked about his drinking during his bankruptcy, he adopts the voice of 'other people': "What people always say is that they manage to start drinking heavily when they get into problems." (D2). He may not have had an alcohol problem but is careful to shift the focus away from his personal life. D3 also offers wide-ranging responses to questions, deflecting away from personal issues. He answers questions with other questions, perhaps the response of an experienced teacher. D6 distracts the conversation several times, sometimes deliberately or perhaps accidentally – although this might indicate his mind flitting quickly between subjects.

English as a Second Language. D1 is American-born, and most of the interviewees speak exceptionally good English: D4 in particular is well read in English literature. However, the capture of open-ended discussion using methodologies such as IPA exposes the issue that meaning might be less easily ascertained when spoken in a non-native tongue (van Nes, Abma et

al. 2010). D3 carefully avoids answering personal questions but is very articulate in English when he wants to be, perhaps demonstrating a higher level of second-language skills in handling nuance and controlling a conversation. Although there is a potential issue when analyzing interviews in a non-native language, it can be suggested from the interviews that clever and manipulative people (notably D2, D3 and D4) will find a way to use language to their advantage.

Environmental Factors

Stigma, Fear of Failure and Reputation. D1 was born in America and has lived in Munich for over thirty years. Still regarding himself as an outsider he observes: “Here in Germany, ... you have a very, very strong fear of failure, a real, major fear of failure.” (D1). He feels strong enough to avoid the stigma of failure, but recognizes social forces that produce stigma as a result of entrepreneurial failure. “My kids go through German school and I am nauseated every single day of the year by the attitudes that they are taught.” (D1). D2 experienced bankruptcy and personal tax liability until cleared by the courts, yet has no comment on the stigma associated with such trials (Seung-Hyun, Peng et al. 2007). He suggests his failure was no problem for him. He suggests stigma does apply to failed entrepreneurs in Germany - “people remember” - but not to him. His legal problems lasted three years, but he retained contact with customers, did not panic or experience discrimination. Perhaps his wife (a venture capitalist who advised him through the bankruptcy) was important here, but D2 does not think stigma limited his progress. He concludes with characteristic understatement that his reputation was “probably scratched a little bit,” but not damaged.

D3 has strong views on the impact of failure in Germany and how attitudes need to change. He builds failure into practical teaching exercises and criticizes those who think it is negative. “They say, “Oh, you are a bad guy because your company failed.” Instead of saying, “You tried it. You are one who really takes responsibility.” (D3). In his lessons, the positive aspects of failure are discussed and he believes attitudes are improving. He tries to raise capabilities of entrepreneurs and minimize conventional German attitudes to taking risks and failing.

However, D4 is critical of bankruptcy in Germany: “Nobody wants to talk to you anymore ... you just basically can just go shoot yourself.” (D4). These extreme consequences explain why he chose to re-purpose rather than close his first company. He sees “the stigma is a specific German stigma. That is, there is – Germans like entrepreneurship of a certain kind.” (D4). In Germany you are a perpetrator, not a victim: “there is a phrase that "he's gone independent", which is a good thing. But there is a phrase that "he's gone bankrupt", meaning that he has bankrupted his business.” (D4). People are unwilling to hear mitigating circumstances. D5 describes the seriousness of his problems and how he avoids bankruptcy at all costs, yet he does not mention stigma in his interviews once. D6 experienced the stigma of failure more keenly than other interviewees. Potential German employers and investors have shunned him. He describes a “failure club” in Martinsried, comprised of other entrepreneurs who have started companies and failed. His personal conflicts with investors made things worse: “you get the attitude of being a troublemaker.” (D6). Much was based on gossip, demonstrating how intangible forces can act against an entrepreneur.

Trust and Honesty. D1 faced a dilemma in his first venture: as an American, he could have left his debts in Germany, but honesty and integrity compelled him to return to Munich. He quotes his father – “Don't measure the person by how they deal with success. Measure them by how they deal with failure.” (D1). D2 feels that by remaining honest with key customers and suppliers he was able to restart trading again later, but he now distrusts business advisors, keeping financial and legal issues under tighter scrutiny. He now feels more attuned to conditions when strategic relationships are threatened. He suggests an entrepreneur should think “like a scientist,” questioning all aspects of the business.

D5's company endured a bad merger: “I learned that my new colleagues had been far too optimistic ... and that money just walked out the door.” (D5). He does not attribute blame (Rogoff, Myung-Soo et al. 2004), even though he personally faced bankruptcy. D5 talks about keeping honest through difficult circumstances, which subsequently helped obtain critical funding. He emphasizes honesty and integrity as principles of conduct. D6 frankly outlines painful consequences of his failures. In parallel, he is professionally interested in the extension of

trust and honesty among multiple contributors through open innovation, perhaps seeing trust as a form of ‘social capital’ (Boden, Nett et al. 2009).

Family. D1 left the American family business to prove he could succeed on his own but his father died tragically before this could be realized. He is critical of his younger self: “it was a failure for me ... that I was going so far abroad was to sort of show that I didn't need any help.” (D1). D2 received strong support from his VC investor wife. Indeed, they married during his difficult business period. His wife’s parents were entrepreneurs but he had no business background. D4 makes multiple references to the support of his wife through several ventures. As a doctor she supported the family when D4 was unable to make a salary. He describes how he has made “rash purchases in the automotive sector” which she had to guarantee, and how she has generally ‘indulged’ his startup aspirations. Such light-hearted sufferance is important: one wonders whether he would act as recklessly without it. He also refers to parental attitudes. As well as limited tolerance for risk – being proud of their offspring becoming selbständig (independent) but not for taking risk capital – he suggests deference to parental views remains strong, and undiminished by generations of German entrepreneurs.

D5 was raised in rural Bavaria with no entrepreneurs in his family. He was the first in his family to obtain a higher degree, but he feels he benefited by having to learn by himself. His mother regards ‘success’ in terms of contribution to society and personal happiness, rather than financial reward. D5 appears to have inherited this view: he feels a strong responsibility to employees. D6 experienced severe stress and the collapse of his first company led directly to a marriage breakdown: he was left in charge of two young children while trying to fight legal battles and seek new employment.

Personality Characteristics

Personality. D1 appears reflective and self-aware. After repaying corporate debts he evaluated his strengths and weaknesses, discovering he no longer needed his business partner. D2 is careful in the way he describes his actions, but is capable of manipulating people around him including

co-founders. He believes his failed venture made him less trustful of others. He is able to compartmentalize his work and personal life: "I was always able to keep this separate." (D2).

D3 is enthusiastic about his companies and optimistic about re-starting his failed venture, without describing how such a re-start might occur. He is proud of his patents, which represent technological success despite the venture's failure. D4 is intuitive and occasionally reckless, taking risks when he has the opportunity and funds, whereas D5 operates differently - the tortoise to D4's hare: D5 appears grounded and responsible. He takes decisions seriously based on rational analysis, and decisions are pursued tenaciously. His confidence is based on values and his instincts are normally correct: "when I didn't believe in my deeper feelings, I had to learn that ... this was a mistake." (D5).

Self-efficacy and Confidence. D1 started his first two businesses with confidence, sure of his own ability: "I saw that opportunity pretty clearly and I knew that I knew how to do it." (D1). He believes innovation may require the creation of new sectors as well as opportunities: he did this in creating the software re-publishing sector. D2 demonstrates remarkable self-efficacy by re-starting his company during bankruptcy proceedings, despite severe German bankruptcy laws. Similarly, he takes responsibility for his venture's problems while taking equity control over the phoenix company: confident in his own capabilities, he expects to be rewarded.

Self-efficacy does not come without reflection or self-doubt. D1 says: "... starting again by myself in 1997, with no money whatsoever ... was kind of scary." (D1). D3 regards himself as capable, regarding technology problems as personal challenges. He has a high sense of self-worth: "I didn't study physics for 10 years to sell plants afterwards." (D3).

D4 is confident in his own abilities and willing to take risks based on his judgment. He left his job to follow his dream and expected his co-workers to quit their jobs too, but they declined. He is aware that while some regard him as self-confident, others in Germany see him as fickle and lacking stamina. He describes his future intention thus: "I'm going to put my money on the table. I'm going to hire some people and we're going to do it again." (D4). He remains enthusiastic and (somewhat) reckless: his first venture was a "brilliant challenge" but admits he was wrong about his own capabilities. He likes being an entrepreneur more than making money: the self-belief and

the exposure to failure offer thrills that he actively seeks – at the present time he plans to sink his money into another venture. His self-belief extends beyond one company, wanting to develop multiple startups in parallel, not to spread the risk but to multiply it across projects (Muir 2007).

D5 is confident but has experienced economic cycles and anticipates downturns: he is a calm, reflective person who has learned not to over-react when events turn against him. He describes himself as optimistic but not enthusiastic, and is respected by customers and investors for his integrity. He refers to the personal support of his family, but otherwise he has strong confidence in his own abilities.

D6 says his family lost confidence in him when business became difficult. As a breadwinner, he watched his earning capability disappear and saw the prospect of financial ruin. His loss of self-confidence, coupled with the stress of the business decline and collapse, led to the breakdown of his marriage and extended periods of stress-induced ill health.

Tenacity. D1 had the chance to remain in the USA and avoid his German liability but chose to return, facing creditors and the German tax system, working for years to pay down debts. “14 years from the day we started, we cleaned the books off and closed the company.” (D1). D4 demonstrated tenacity at his most recent startup, but he says he had “no place else to go” after his previous ventures – reluctant to re-enter corporate life, he regarded himself as unemployable. In Germany, he says, “...People here will just fight on ... where a more rational entrepreneur might say, ‘this has failed. I'm going to cut my losses.’” (D4), adding to the discussion on whether to fight on or quit (Gimeno, Folta et al. 1997).

D5 has proven tenacious, saving his company three times. He takes the challenge early and head-on: “a real fight is better than having to fight a small fight.” (D5). He visualizes his business responsibilities: “I ... sat in the chair of responsibility and had no legal option to walk away anymore.” (D5). D6 fought to retain his first business and continues trying to re-create it. He is frustrated by questions of focus: his corporate difficulties distracted him - only ‘a fifth’ of his efforts were productive.

Creativity. D1 started his first business in a new sector of software ‘re-publishing.’ D3 misses the creativity and excitement of developing new products, although he now does this vicariously

through his startup incubator. D4 regards the earliest stages of his startups as the most creative – finding talent and money and developing technology. He is proud to call himself a hacker, which he associates with being creative, innovative, tenacious and improvisational, as well as slightly weird and “an outsider”. This ‘hacker’ theme is reminiscent of theory around Intelligent Fast Failure (Tahirsylaj 2012).

D5 views creativity as essential not just in products or business model but also in negotiation and deal discovery. He secured capital at a difficult time, just before closedown by liquidators. He had to identify and secure funding when the alternative was personal bankruptcy, so he feels necessity made him creative. D6 sees creativity not just in the creation of new ventures but also in collaboration between motivated experts, and he has established online communities of scientific researchers for medical technologies.

Drive and Motivation. D3 differentiates between levels of commitment in large companies and startups, the latter being more extreme. In his incubator ventures, “bring[ing] yourself to the edge, ... is really, really important.” (D3). He is aware that such extreme commitment increases the risk of burnout, which may in turn reduce the chance of success. D4 feels driven to build companies: he says: “I feel like I'm late to the party already... I should be in there right now.” (D4) This urgency indicates that he celebrates the excitement of exposure and new risks.

Counterfactual thinking. D1 talks positively about his experiences, but when his companies were struggling to survive, he viewed his contemporaries from Wharton with regret: “it looked like they had made the right choice and I had made the wrong one.” (D1). D2 is content to disclose his mistakes, being too trusting of key personnel, and starting a company with stakeholders who had unclear expectations. D3’s company has been dormant for five years but he believes he would manage the re-started venture better now. This counterfactual thinking is present in interviews with D1, D3, D4 and D6 (Baron 2000; Baron, Hmieleski et al. 2012).

D4 reflects on lost opportunities: he missed the Netscape IPO window, staying at Siemens to reach a ten-year pension milestone. His reflections are not bitter: he focuses more on creating new opportunities than regretting lost chances. His only regret is his inability to sell the company

he grew for a decade. D5 describes what happened clearly in the past tense and believes his responsibility lies in dealing with situations as they are, not wishing for alternative outcomes.

Positive outlook and optimism. D1 appears to embrace new chances, aware of the risk and effort required. “Failure shows up. Instead of falling apart and saying, ‘Oh my God, its failure,’ you say, ‘Oh, there's an opportunity.’” (D1). He believes it is the entrepreneur’s job to see potential in the darkest moments, and is proud of the 80% of incubated companies still in business. D3 is optimistic about his students, urging them to start “with your own power [and] you can set up your own idea.” (D3).

The language used by D4 is positive and extreme: things are “super”, “brilliant” and “fantastic.” Ideas are either excellent or poor, with little moderation. He describes his own startups enthusiastically and Munich excites him, with many entrepreneurs and incubators to develop ideas. He is keen to pass on his experience through business interaction and mentorship. He remains perhaps over-optimistic: his first venture technology deliverable was planned for 60 days, yet took a year to deliver.

Entrepreneurial Response

Learning. D1 describes how much he learned when he repaid his company’s debts, “That was the biggest, steepest, fastest, best learning curve that I have ever had.” (D1). Mentors assisted this education: his former professor identified problems too gradual for D1 to detect himself. He now tries to see opportunity in every failure. D2 describes how a positive team became frustrated when too many intellectual co-founders got involved. Then he had to learn rapidly about law and finance after discovering embezzlement. He learned to follow his instinct, and be honest with suppliers and customers. He suggests this cannot be classroom-taught: “Until you have burned your finger in a flame, you leave it [there].” (D2). He feels he mistakenly trusted advisors and is now reluctant to delegate decisions on contracts and finance.

D3 runs an entrepreneurship incubator and sees that Germany has problems combining different mindsets: “Technical guys don’t understand how the business guy thinks.” (D3). D5 agrees: Germans are reluctant to cross disciplines, possibly due to specialization during formal

education: this is a problem when startups need all-rounders, and these are not celebrated in Germany.

D3 forces rapid learning. He insists incubated ventures generate revenue within a week: most of them fail but he uses this 'breakdown' as a key learning stage. He is wary of trying to educate students too much from his own experiences: he says new entrepreneurs have to "make their own experience" including all the failures (D3).

Business focus is essential and D3 feels his venture lacked focus on customer acquisition and sustainability. D4's learning did not diminish his urge to do it again. He now separates talent from money, talented people being harder to find. Like most entrepreneurs, he is not a good listener: "They listen. They understand. But it doesn't register." (D4). He takes advice reluctantly and thinks most entrepreneurs have to learn from their own mistakes. If they succeed, they may never learn these lessons.

D5 has learned by doing, and through setbacks (Cope and Watts 2000). Beyond his professional knowledge (finance, law and tax), he reflects on business cycles and the need to plan for inevitable downturns: "I have now seen enough ups and downs not to fall into panic mode too fast." (D5). D6 outlines two areas of learning, regarding practical skills and enhanced self-awareness. He believes learning from his mistakes makes him more likely to succeed. "When you are self-critical you can ... realize what are crucial events in a relationship with investors and partners." (D6). He also suggests key learning is "all in the soft skills." (D6). This involves three steps: the mistake itself, the consequences, and then the reflection on these consequences. Pain of failure intensifies (Cope and Watts 2000) this learning experience. (D6).

Teaching. D1 and D3 run entrepreneurship centres in Munich universities and develop many of their own courses. D3 criticizes business schools teaching students how to write a business plan: he believes more practical teaching is needed, with failure and rejection as necessary components. D4 sees difficulties in teaching entrepreneurship beyond the sharing of personal stories: one needs to experience failure for oneself. D5 shares this view: although the contemporary startup scene is rich in education and advisors, he thinks the only way to really learn is by doing, and the strongest lessons emerge at the most difficult times.

Opportunity Identification. D1 is decisive in the way he identifies and addresses opportunities: “I saw that opportunity pretty clearly and I knew that I knew how to do it.” (D1). He appears more intuitive than analytical and insists all new opportunities have an early revenue model. He asks his entrepreneurship students which is the most important word in the sentence 'Every breakdown is the opportunity for a breakthrough.' His answer is ‘every,’ suggesting that the entrepreneurial instinct should address all opportunities, however they arise, and he believes this approach “becomes an automatic system for dealing with failure.” (D1). D2’s startup arose from academic research: only later did he consciously consider how to identify opportunities. He bought the assets of his start-up from bankruptcy based on information on the business opportunity he already knew very well.

D3 had prior experience of being a student entrepreneur. He enjoys his teaching role and is not keen to start another venture himself. D4 believes talent (people) and financing are pre-requisites and opportunities will emerge when they are in place: he sees himself more as an opportunity assembler than creator (Corbett 2005). He also describes the ‘internal logic’ of startup entrepreneurs, describing his startups as a ‘logical’ thing to do at the time, even though they proved unsuccessful. For him, the attractiveness of an opportunity arises from a sense of self-efficacy, a suppression of the risks involved, and the opportunity cost of ‘missing out’.

D5 considers his next opportunities logically. His long-term faith in his own technology makes it logical to persist in the venture he knows well. D6 feels his future opportunities have been blighted by past failure: he is pessimistic about gaining employment or starting a new company. His best opportunities are outside of Germany but family commitments constrain him from moving. In the interview, he probed for business connections to explore a new venture. He grew more animated talking about these opportunities. He remains ambitious and keen to work with like-minded collaborators. Perhaps this explains his collaborative software bias: he sees online collaboration as a way of circumventing the limitations of working in Germany.

CHAPTER 5B: ANALYSIS OF BRITISH INTERVIEWS

This chapter presents findings from the Interpretative Phenomenological Analysis of six British interviews, including (1) a profile of each case outlining background, context and reasons for failure and a brief personal profile and commentary on each individual subject, and (2) a thematic analysis arising from the application of IPA analysis to interview transcripts and a cross-case analysis of the British cohort.

In this analysis, as outlined in Figure **15**, each interview transcript was analyzed according to the process described in Chapter 4 and summarized in Figure **10**. This resulted in a written profile of each interviewee (background, context and personal profile, as documented in Table **12**) followed by a thematic analysis, which is then further reviewed to ‘enfold’ relevant literature with references to key themes.

Among the detailed analysis contained here, the overall goal remains to address a simple issue: what happened when these entrepreneurs failed, what did they learn and what did they do next?

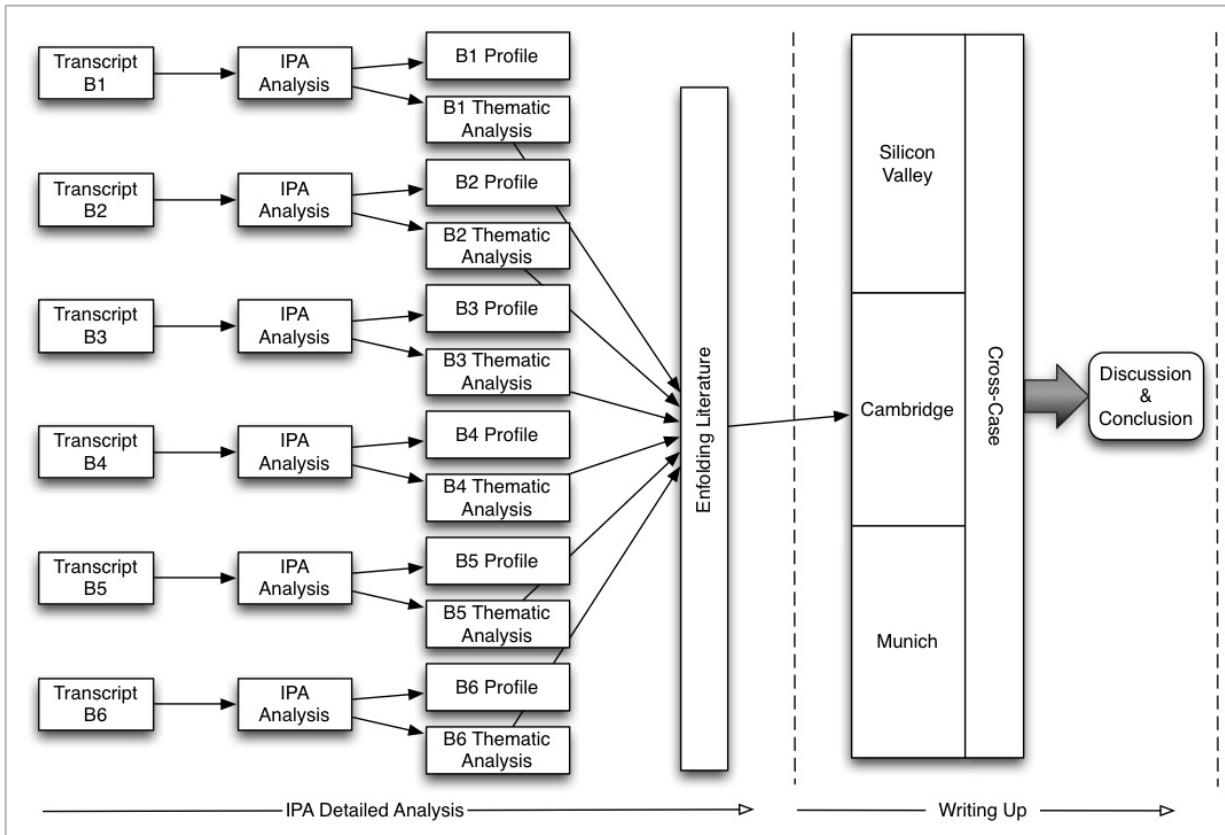


Figure 15. Process Schematic Outlining the IPA Analysis and Outputs for British Interviews. Each Interview is Analyzed using IPA Methodology before Performing a Cross-Case Thematic Analysis (within each Country, in this case the UK)

Summaries of British Interviews

PROFILE of B1. White British male, mid-50s.

B1: Background. B1 is a Cambridge-educated engineer, now running an outdoor activity start-up in Australia. He was CEO for several Cambridge-based technology start-ups in digital display technology and holographic data storage. His primary failed venture involved a company he joined as CEO, where he spent a year convincing investors the technology would not work. Eventually, they agreed and money was returned. As a result, his reputation is high with VCs and other CEOs.

B1: Context. B1 experienced two major company failures after a successful venture in Internet commerce, which was sold in 1997 but subsequently under-exploited. The first venture failed due to technical holographic data storage challenges proving too great. B1 worked in strategy consulting and this helped him rapidly evaluate the situation and recommend company closure, returning remaining funds to investors. This placed him in conflict with the investors but he succeeded. As a result, B1 remains regarded highly by major Cambridge investors: "I somehow got a very good reputation in Cambridge, having been CEO of an abject failure." (B1). B1 led a (second) display technologies firm through initial funding, product development and sales, handing over the company to another CEO, who almost broke the company before B1 helped it recover again.

B1: Personal profile. B1 has a positive outlook: he displays strong values regarding family and work-life balance, taking extensive periods of family leave between start-ups. His use of language is instructive: he makes self-deprecating comments, is reluctant to discuss his achievements and keen to recognize the contribution of others. He uses positive language: he is enthusiastic about "hyper-exciting" opportunities, motivational in describing sales efforts, and grateful for being "fortunate" for such "lovely" opportunities. He is a strong storyteller, using short sentences to build tension, using questions to confirm understanding when simplifying complex technology and holding back the conversation to heighten the drama of a particular episode. Learning from his failed ventures feeds directly into his next one, and he feels confident to assess new opportunities: "I asked all the toughest questions ... once you have had the experience, it's clear in your own mind." (B1). He has a strong sense of confidence and self-efficacy, demonstrated by his ability to raise funds in tough conditions.

PROFILE of B2. White British male, mid-50s.

B2: Background. B2 is a long-time entrepreneur with multiple failed companies. A Cambridge Engineering graduate, he studied Financial Management and psychology after his ventures failed. His first company has traded since 1984 despite two major frauds and customer insolvencies. He defines failure subjectively: contemporaries believed B2 was bankrupt (twice) but he avoided the stigma of personal bankruptcy. After his second firm collapsed, he developed a portfolio approach involving multiple companies, charities and properties. He currently runs a local high-profile seed fund.

B2: Context. His primary company, founded in 1984 and still trading today, is a developer of ruggedized peripheral devices. This company failed twice and is regarded by B2 as a 'lifestyle business' after experiencing two total shutdowns in the 1980s, when an accounting error led to the appointment of receivers. This was during UK recessions when many firms failed. Through careful planning, he avoided bankruptcy: though stressful, he started another firm to purchase all its assets. This 'phoenix' strategy failed when a business partner reneged on the deal and B2 spent several years repaying significant debt before eventually restoring the company to his own name.

B2: Personal profile. B2 experienced personal setbacks and failure during his career, including a failed marriage and alcohol abuse. The longevity of his long-term technology venture demonstrates persistence, although he sees survival as rational: product margins were high and his skilled team were keen to continue. After 27 years, his company retains staff from its earliest days. B2 considers the impact of failure on his career and personality. Critical of psychology and therapy when younger, he studied psychology and attended alcohol rehabilitation: he is now an advocate of self-awareness and support. He enjoys inventing and developing new products. B2 worked

in Bavaria and compares Germany to the USA. He believes the stigma of failure is strong in Germany and weaker in the USA, but in the UK public perception is complex: he gave a UK TV interview after his company failed, where the BBC exaggerated the company's failure to heighten the drama. B2 suggests this British predisposition for celebrating bad news fosters stigma that might not otherwise exist.

PROFILE of B3. White British male, mid-50s.

B3: Background. B3 studied economics at the LSE before gaining a PhD in Computer Science. He invented chip designs, hardware and software, and co-founded two ventures in advanced printing technology. B3 was CEO in his first venture, which failed through its inability to raise more capital. The second start-up had technical and business goals but also failed because investors declined to invest more funds: in this case, B3 believed this was the correct outcome. He reflects that learning from failure provides a double education. "You gain a lot of experience ... because it grows through so many stages and then it collapses through so many stages." (B3).

B3: Context. B3 experienced early success as a student and he is proud his software was widely adopted. In the first of several ventures, he joined as a turn-around CEO, successfully for a few years before it closed. He is ready for adversity: "I'm always prepared for ... bad things to happen." This attitude is communicated through unemotional language when talking about failed ventures – he is dispassionate, not angry or bitter. He makes rational scientific choices based on available facts, even decisions on company survival. Perhaps this demonstrates insufficient passion to advocate the survival of one's own start-up at all costs.

B3: Personal profile. B3 was born in Sweden and raised in the UK. He demonstrates high self-confidence and self-efficacy regarding technology, but realizes this can be counter-productive as an entrepreneur. He is not prepared to win at all costs. B3 comments on how British social structures discourage crossover between technical and business skills and this reduces innovation. He sees such crossover as a celebration of intellectual capability but reflects that: "The UK, as a culture, doesn't really promote intellectually driven activity." He is critical of entrepreneurial opportunities in the UK, but points out an underlying factor – "It's not so much the failure to which they object. It's the creativity that went into getting to the position where you could make it a failure." (B3).

PROFILE of B4. White British male, mid-50s.

B4: Background. A Cambridge graduate, B4 has founded many ventures in the USA and Cambridge since 1980. His portfolio approach to mitigate risk involves running a consulting company with steady income, which also offers a platform to explore new technology opportunities. Some of his ventures represent 'disappointments', where he made a positive financial return but investors lost money, providing a subjective definition of failure.

B4: Context. B4 built companies in the US and UK. His first software company grew rapidly developed in the UK before expanding to America. VC funding brought a reduction in control and he watched competition erode the opportunity he had built. New management declined acquisition offers and B4 was powerless to influence events. After this failure, B4 returned to consulting as a lower-risk business. This consulting company proved successful, spawning four new technology companies. He held board roles in several ventures, but focused his executive energy on one company at a time. From this strategy he achieved multiple exits but is not satisfied. One venture received large amounts of capital, but spent it all and late-stage investors lost money. His subjective definition of what constitutes 'failure' recurs in the interviews.

B4: Personal profile. B4 developed a portfolio approach to spread risk. He is self-confident in starting companies and raising funds, and has learned mainly from failure rather than success. He regards self-efficacy as essential, but this comes with the need to be self-critical. He suggests success might lead to decline and failure increases the chance of success. "I think if you come out of a situation that was less successful you are more disciplined about how you analyse the opportunities... I think you get an amazing surge of self-belief and optimism when you have a successful exit that can lead you to folly in the next venture." (B4).

PROFILE of B5. White British male, late-40s.
<p>B5: Background. B5 is an Engineering academic, lecturing and running research at Cambridge University. He has founded three companies: the first is still trading but was not a success. His current two ventures are bootstrapped and he hopes to avoid taking in external capital. He is CEO of one and board member of another Cambridge start-up, both developing advanced technology in physical sciences.</p>
<p>B5: Context. B5 mitigates risk through parallel careers as entrepreneur and academic. His first unsuccessful venture was never liquidated: perhaps he feels that liquidation makes the failure visible. This first venture recorded only £250k in sales over 15 years, although the technology is still in use by many customers. He admits he has ignored market analysis and feasibility before starting a new firm. Also, he and his technology partner spent too much time refining products at zero cost, without building a sustainable business. B5 suggests academics may be “probably the worst people to do business, because they're too soft. They're too prepared to want to show people how clever they are.” (B5). Perhaps it is hard to fear failure if the cost of failure is so low: with no visibility or exposure to investors, there is nobody to notice when the firm fails. This in turn questions how ‘failure’ is defined: B5 clearly thinks his venture failed because it did not succeed as a profitable entity, but much was learned and customers benefited from the cheap technology.</p>
<p>B5: Personal profile. In his academic field B5 meets senior industrial, political and academic leaders – the rewards of this are prestige and recognition without much financial success. During his career, he has observed a shift towards the engagement of academics in industrial entrepreneurial projects, and he embraces this fully. The combination of academia and start-up life may lead to being seen as a ‘gentleman entrepreneur,’ who likes to play at the fringe of business without leaving the safety of the university. However, being an entrepreneur can be seen as academic outreach: “ultimately you want to make a difference. As an engineer, you want to get your work applied rather than applauded.” (B5).</p>
PROFILE of B6. White British male, early-40s.
<p>B6: Background. B6 left a Cambridge University academic role to become a physical sciences entrepreneur. He founded two companies in the same field and both have failed. He feels the pain of failure from these two ventures and reveals some bitterness. He feels betrayed by key academic customers who did not understand his situation.</p>
<p>B6: Context. B6 started a company in a similar technical field to (German interviewee) D2, who was also unsuccessful in his first venture. The firm developed specialist scientific instruments, for a limited number of geographically dispersed customers, each with a different procurement process. These customers could not be compelled to sign deals on a timely basis. B6 appealed to his former university department, to execute deals promised to him but these appeals were ignored. Bitterness and a sense of betrayal are apparent throughout the interview.</p>
<p>B6: Personal profile. The interview with B6 differs from other Cambridge transcripts. There is resentment, anger and betrayal in his language: his former university colleagues are described as “princes” in their own “kingdom”, implying a privileged culture closed to outsiders. He suggests the Cambridge colleges perpetuate this limited outlook: “it can make people think that ... they are untouchable.” He describes university entrepreneurs as “paper tigers” that are not ‘110% committed’ to success. His attitude to failure is very negative and attributes blame to his former colleagues. He does not offer extensive reflections on learning. Although he says, “you learn much more from defeat than you do from victory”, this seems perfunctory in light of other comments. This interview was possibly a rare chance for him to talk openly about painful experiences and an opportunity to release tension. B6 appears still very angry and about the failed venture. Academic literature has pointed to the role of grieving in the response to failure (Shepherd 2003), and B6 appears to have barely started this journey.</p>

Table 12. Summaries of Six British Interview Subjects, covering Background; Business Context and Reasons for Failure, as well as Personal Profile and Commentary

Thematic Analysis Arising from IPA – United Kingdom

In the overall British analysis, a total of 78 thematic codes (themes) were identified with a total of 894 references to these themes across six interviews. A summary of the most frequently occurring themes is provided in Figure 16, along with an approximate mapping of these themes into four categories. The mapping in Figure 16 is intended to indicate the main themes arising from the British analysis; the relative frequency of occurrence of each theme (themes in bold occur more often); and whether these themes are personal or social, and retrospective or forward-looking in nature. This allocation of themes into four quadrants is not based on prior literature review but is reflected in the research design. Ultimately, this remains the author's subjective view of how various themes might be characterized.

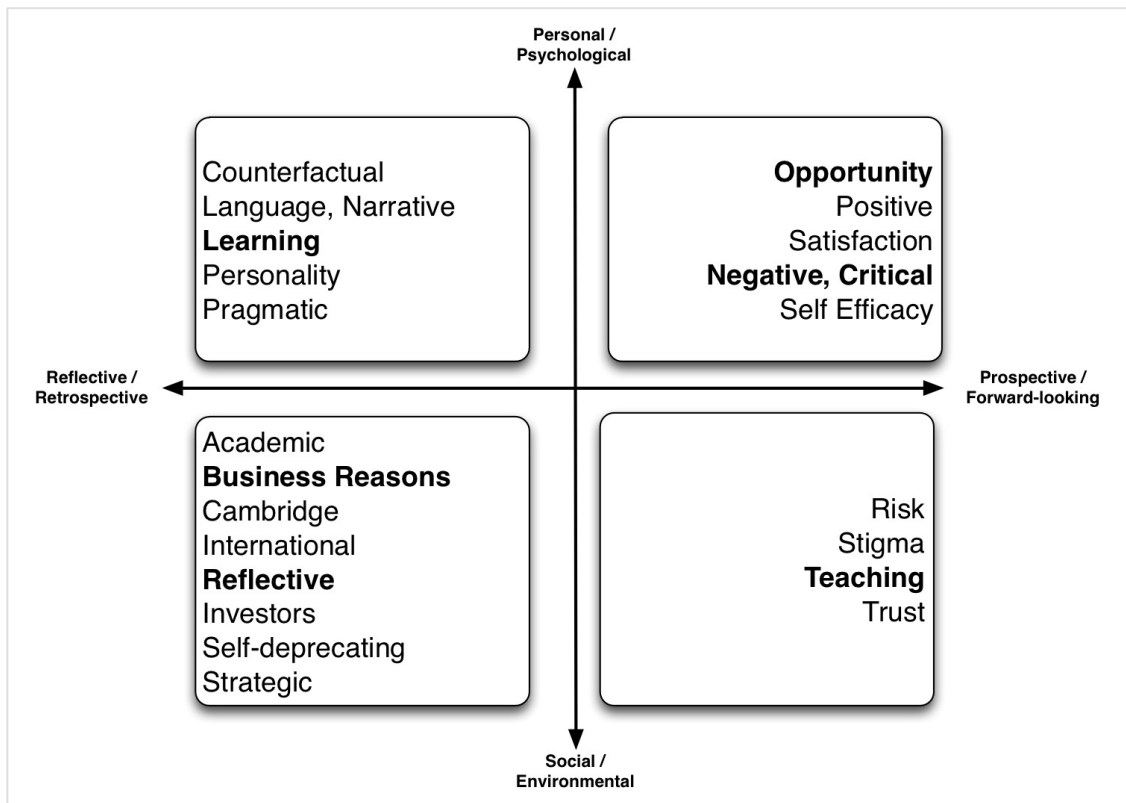


Figure 16. Mapping of Most Frequently Occurring Themes Emerging from IPA Analysis of British Interviews

A narrative account follows of these themes, combined with extracts of text from the interviews and relevant references to ‘enfolded’ literature to add context to the interview findings from prior research.

Business Context

Business Reasons: Reasons for failure and business context. In the UK interviews, entrepreneurs raised a variety of reasons for failure. Economic factors figured highly, either due to recession or poor sales (B2, B3, B6), competitive pressures (B4), or the lack of prior market validation (B5). B2 experienced accounting errors, fraud and misrepresentation, and B6 felt that he was treated badly by customers.

Both academics-turned-entrepreneurs (B5 and B6) suffered from lack of market validation and planning. B6’s highly priced products had a limited market and long sales cycle while B5 had a different problem - when a customer bought a product they extinguished their need for further products. B1’s second startup failed due to technological challenges proving too difficult for a commercially sustainable business. B3 suffered a variation on this: his prototype did not justify further funding. Concern over technical excellence sometimes disguised other commercial issues: “what we didn't really think about was the nature of the market. We were so close to the technology” (B5).

B4 saw how VC-funded expansion wrested control away from him: by the time strategic decisions were being made about company direction and acquisitions his voice was no longer heard.

Definitions of failure (and success). Definitions of failure varied. The entrepreneurs experienced lack of success in one or more of their ventures: B1, B2, B3, B4 and B5 had experienced “abject failure” at some point. B5 regards his first venture as a failure for not realizing its potential and lack of financial return. B1 however sees his failed venture as a success that made his reputation in Cambridge, yet regards his earlier company (successfully sold for £6 million) as a missed opportunity.

This variation in perception makes analysis of failure more complex (McGrath 1999; Politis and Gabrielson 2009; Cope 2011). B2 endured two receiverships in the same company but is proud he avoided bankruptcy. B4 distinguishes between perspectives and outcomes in one venture: “Everybody could pretend it was a success. But actually it was a real bonfire of investors' money.” (B4).

For B3: “Nothing smells as rosy as success and nothing stinks like failure.” (B3). He has a clear view of how failure is viewed in the UK, worth quoting in full.

“In a way, it's not so much the failure to which they object. It's the creativity that went into getting to the position where you could make it a failure. ... If you make a success of it, all of that is forgiven. If you don't make a success of it, then all of that counts against you” (B3).

Observations about other countries. All six UK interviewees remarked that America was more tolerant of failure, B1 suggesting that self-belief and self-efficacy differ by country, and attitudes to failure follow this (B1). The merging of life and work in the US was also seen as positive by B2: American entrepreneurs are simply ‘less remarkable.’

Comments about Germany suggest Germans are better at tackling difficult technical problems and applying a longer-term view. B2 worked in Bavaria and praised Germany’s engineering focus, but indicated their engineers might be mystified by the lack of focus in a ‘portfolio entrepreneur.’ B6 compared the ‘poor’ UK funding scene with the German Fraunhofer, and how Germany better integrates university students with new technology ventures.

B3 spent his early years in Sweden and reflected on his UK career: “It's not so much a stigma of failure. It's that there is no value attached to ... experience.” He identifies a British lack of respect for valuable experience unlike other European countries, and suggests failure is simply another outcome with which to under-appreciate people.

Academic and analytical viewpoints. Cambridge entrepreneurs (mostly Cambridge science graduates), tended to discuss their experiences and opportunities analytically. For example, B6 felt attracted to startups being more meritocratic than academic departments: failure can be seen as a natural outcome of meritocratic (or capitalist) systems.

B1 and B4 worked in strategy consulting firms and this sharpened their quantified approach to evaluating businesses, while B5 (and B6) were more drawn to a curious, impartial view: “Part of me thinks, ‘It would be really good to get a full academic understanding of why that happens.’” (B5). Both B5 and B6 have published papers in prestigious scientific journals but B5 recognizes that popular adoption of technology is a goal in itself: “As an engineer, you want to get your work applied rather than applauded” (B5).

Pragmatism and Realism. Prior practical experience was not always positive. “Most start-ups consume an enormous amount of time and yield very little.” (B4). B1 took a low-paid logistics job to learn the business for his startup; B5 and B6 saw friends and colleagues as potential customers. B3 was pragmatic to the point of diffidence: “We had a reasonably high burn rate and there was no prospect of raising more money.” (B3).

The personal cost of failure confronted all the UK entrepreneurs, with dramatic experience of failed marriages, alcohol abuse, and laying-off of dependent colleagues (B2). B5 suggests personal cost is the obverse of wider aspirations – laying-off of staff is the opposite of building value and jobs for a large team.

Control and Conflict. B4 insists that control is essential when managing a startup. He now avoids external funding whenever possible. B2 describes the feeling of being in control even during receivership even describing sales of assets at auction as a game, as fun. He learned many operational lessons through the winding-down stage when disparate aspects of a business are brought together.

Conflict in the declining stage of a company may be inevitable. B1 describes problems with one executive, taking significant time and causing more stress than any other issue. He had to confront investors to persuade them it was better to take a small return than nothing at all. B3 sees an in-built conflict between commercial and technical mindsets: “If one person speaks, the other person doesn't hear what was said in the way that the person speaking intended. I often find that stressful when negotiating between those things.” (B3).

Language and Narrative

Language and Narrative. As the transcripts were analyzed according to IPA guidance, the use of (English) language and styles of narrative (story telling) in interviews were strikingly different. Some interviewees were excellent communicators and storytellers: B1, B3 and B5 used techniques to engage the researcher in the story, including variation in sentence length to create tension and drama (short sentences to build tension and emphasise a point or event); use of questions to confirm understanding in the recollection; and control over the flow of their stories (Harmeling 2011). These skills are augmented by use of hyperbole and emotive language. B1 uses positive and flamboyant terms to describe situations: “hyper-exciting” opportunities and “flying the flag.” He is grateful for being “fortunate” for such “lovely” opportunities.

Good story telling implies engagement with the listener: all except B4 could clearly explain complex technology and made efforts to simplify and check understanding during the interview. B1 and B3 were also very clear on business situations, on who did what and when. Business interactions during a corporate decline can be complex, involving multiple characters.

B4 differed by being less explicit: his use of language was precise and sparse – less effusive, more guarded and restrained. Perhaps for him, detailed explanation is superfluous. B4 changed during the interview, starting expansively and becoming less verbose: perhaps he had unexplained time pressure.

B3 lived in Sweden until the age of eight. He uses precise language and is more timid than others: things are “a bit”, “very small”, and work “quite nicely”. He produces unusual phrases, pleasing and noticeable during the interview: an invention is “a wonderful bit of cleverness.” There was little cursing or swearing during the interviews and used sparingly for dramatic effect.

Apart from B6, most entrepreneurs demonstrate a sense of humour, often self-deprecating (Fox 2005). B5 uses the word “Muppets” to describe himself and his team in a playful, mocking way. He changes from the present to the conditional tense when describing his current startup and switches from first to third person, possibly indicating a distant relationship with his startup.

The most revealing use of language involves B6. Although passionate and engaged when talking about technology, he is cynical, mocking and cruel, especially when describing institutional haplessness. He refers to “burning bridges” and “never” when talking about former colleagues. This negativity, almost petulance, comes through clearly, demonstrating that his personal attitude and response to failure has not yet been resolved. He also uses irony and sarcasm when describing the business partners who betrayed him. However, he seems unaware of the irony in some of his statements, criticizing funding bodies while taking grants from them.

Self-deprecating language. Most of the UK interviewees made self-deprecating comments, perhaps confirming a stereotype of the UK sense of humour. Fox describes self-deprecating speech as combating what the British dislike in social behaviour: “the most important rule is the proscription of earnestness. Pomposity and self-importance are outlawed.” (Fox 2005). B1 understates his achievements and credits the contribution of the ‘smarter guys’ in his team, seeing himself as ‘fortunate’ to have the trust of others: this seems self-effacing, since trust must undeniably be gained through his actions. B2 is also happy to expose and embrace his difficulties: “Well yeah, you've come to the right person. I've had a reasonable failure.” (B2). B3 is also self-mocking, describing himself as a CEO ‘dogsbody’ doing the ‘donkey work’. However, he is also very understated, preferring to relay the minimal amount of facts required: “We couldn't get any funding, no. It was just sad.” (B3).

Such self-deprecating behaviour is covered in academic literature: self-effacing modest behaviour is regarded as mildly pleasing, which “presents the self in a likable way” (Zell and Exline 2010). However, Zell also describes how cultural filters can make self-deprecating speech work well in some cultures but not in others, and it “may risk negative reactions if observers perceive it as insincere, manipulative, or negative.” (Zell and Exline 2010: 72).

Cynicism. B6 demonstrates resentment, anger and a feeling of betrayal in his language: his former university colleagues are “princes” in their own “kingdom”, implying a privileged culture closed to outsiders. He denigrates funding bodies, IP lawyers and support agencies, and regards German organizations such as the Fraunhofer Institute as superior to anything in the UK. This establishes some distance between himself and his situation – nothing is right, everybody else is wrong. Perhaps this represents a transitional phase, the early painful stages of loss and denial

arising from entrepreneurial failure as documented in grief recovery models (Shepherd 2003; Jenkins and Brundin 2009; Shepherd, Wiklund et al. 2009).

Distractions. It is worth commenting on distraction techniques used by B2 and B6: they change the subject away from painful topics. When the interview starts to examine painful personal and business-related events, B2 talks about other failed companies to distract from the flow of conversation. B6 changed the subject twice to distract from his failed ventures: once to discuss individuals who caused problems for his company, another time to discuss changes to the UK tax system. Although both valid discussion topics, they were clear distractions from the interview flow, indicating he was keen to avoid painful or sensitive areas.

Environmental Factors

Stigma. Interestingly, B6 is probably the most adversely affected by stigma, but does not mention it explicitly. He has failed twice in the same specialized area of physical science, a small field in which academics and vendors know each other. This represents an insular community in which ‘social’ stigma may be most visible and hardest to conceal, but B6 does not mention it. At the end of the interview he suggests ‘failure’ is a social construct lying under the surface of everyday activity. He seems to be referring to stigma but does not use the word. Apart from B6 all interviewees subsequently overcame failed ventures to succeed in later ventures or employment: if stigma exists, it has not restricted their career progress. Perhaps the self-efficacy required to be an entrepreneur might involve sufficient self-confidence and self-belief that stigma can be observed and overcome by these entrepreneurs. The stigma of failure for B2 and B3 exists only as a social phenomenon – they can articulate it, but it does not impact them.

B1 suggests he experienced ‘reverse stigma’, where his proposal for company closure attracted positive rather than negative attention. He describes interviewing for a subsequent CEO role: "I gather you have just shot a business. We'd love to have you." (B1). B2 describes how timing and social perception mitigate social attitudes: his company went into administration during recession, and failure was so widespread one could hide among the herd. This suggests stigma

involves isolation of exceptional and vulnerable cases, supporting Wiesenfeld's concept of 'singling out' so that social, economic and legal arbiters can work to establish stigma (Wiesenfeld, Wurthmann et al. 2008).

In summary, the interviews do not confirm general UK attitudes to stigma from business failure, exemplified by the following comment by Alan Sugar, a leading British entrepreneur: "The English culture is that if you go into the market with a big fanfare and then it fails, there's a stigma attached. There's a loss of confidence in that individual among investors." (Cowan 2011). There may be a corollary with literature on confidence, where 81% of entrepreneurs believed they had a 70% chance of success, with the remainder anticipating a 100% chance of success (Cooper, Woo et al. 1988). Perhaps entrepreneurs have full knowledge of the stigma of failure, but do not believe it really applies to them as individuals.

Trust. For B2 and B6, the betrayal of trust had a dramatic impact on their lives. Breakdown in trust led B2 to a long-running feud with a board member, but they are now good friends: perhaps B6 will experience similar rapprochement in due course.

B1 and B5 developed long-standing trusted relationships with customers and investors, becoming useful when new ventures emerged (Welter and Kautonen 2005; Caliendo, Fossen et al. 2010). Trust appears to be commercially valuable: after multiple ventures one develops awareness that trust is important for long-term return. This applies to B3, despite several failed ventures: investors, who routinely seek his opinion on potential investments, trust him. B3 calls this group of collaborators his 'social network' even though elsewhere he describes himself as "the world's worst networker." B5 identifies a different aspect of trust: after working with his business partner for two decades he regards partnerships as key to leveraging the skills and trust of others. This spreads the 'upside', in the sense that income and value appreciation may be divided, but also shares the effort and the 'downside' risk of failure.

Cambridge University. A single institution - Cambridge University, dominates the Cambridge region. This is unlike Munich (with LMU, TMU and the Strasczeg Centre) and Silicon Valley, containing Stanford University, UC Berkeley, and UC San Francisco among others. Interviews reveal Cambridge University as a recurring, multi-aspect theme regarding failure. There is much

literature on regional ‘clusters’ (Glaeser, Kerr et al. 2009; Wennberg and Lindqvist 2010), and the Cambridge cluster in particular (Garnsey and Heffernan 2005; Herriot and Minshall 2006).

B4 credits the region with having good infrastructure and support when ventures fail:

“Cambridge is a very entrepreneurial place and start-up guys will frequently fall off their horse.”

(B4). He suggests venture capital firms in Cambridge have returned to London, creating a dependency on smaller angel investors. B3 adds that investment banks never moved to Cambridge like they did in Palo Alto. Around Cambridge University, an ecosystem was created early but its momentum has not been maintained (B3).

B3 identified a phenomenon peculiar to the city: “I think there's also a lot of quasi-success in Cambridge, people who are a bit successful. They kind of acquire a social network and reputation which maybe extends beyond that success.” (B3). Unlike in London, entrepreneurs with moderate financial success might live well in Cambridge where property and lifestyle are relatively cheap. This may make Cambridge an easier place in which to appear successful, but may be counter-productive if people are less driven to succeed.

B1 comments on structural problems: the city is too small and insular. There are few suppliers and customers so a self-sustaining ecosystem remains under-developed. Close university-based relationships can become stifling, and local interdependence is limiting: if deals go wrong there may be few other people to go to next. B3 describes the university’s colleges as “ivory dungeons” (B3) limiting expansion opportunities for startups. B5 adds an element of envy: “We have many, many examples of multi-millionaire academics ... but deep down there's also a lot of resentment, which actually is the green-eyed monster.” (B5). If B5 is correct, a city with so many academics can perhaps lead to envy of those who have left academia and succeeded, and a sense of Schadenfreude towards those who have left the university and failed.

Cambridge University generates extreme opinions from B6, based on his recent unsuccessful relationship with scientists. He finds it difficult to separate his personal problems from general comments about Cambridge University. For example, he describes weaknesses compared to how German universities deal with scientific startups; he sees problems in the collegiate system creating a closed community, which does not have to engage with the commercial world; and he outlines a reluctance in Cambridge academics to break away from the university and innovate.

Personality Characteristics

Personality. With the exception of introspective B3, the UK interviewees present themselves as extrovert and happy to inform others about their technology and business ideas. They are also all reflective about their failure experiences. B2 is active in charitable and social causes in the Cambridge region: he is also highly self-aware after psychology training, alcohol counseling and experience with a life coach. He is now comfortable sharing his experiences and keen to help others.

B3 describes himself as a poor networker and prone to “massive self-doubt and a feeling of failure and inadequacy and so on at times, tempered with belief and knowledge about my own abilities.” (B3). He sees himself as a mixture of many attributes, most comfortable when tackling difficult engineering challenges. This introspection may also make him less susceptible to failure stigma – perhaps he is unable to suffer from what he does not recognize.

B6 is an experienced researcher, motivated by a desire to be independently successful. Unwilling to remain in a leading research laboratory, he left the university to prove he can succeed in industry, although this has not (yet) happened. He seems to desire acceptance by the community of physicists he left behind. In his interview, he describes confrontations with customers and funding bodies. He appears isolated in his business position, with no trusted advisors or colleagues. This lack of self-control manifesting in confrontation, combined with high expectations of how customers should behave can make B6 appear arrogant. This highlights how the failure of companies places stress on the entrepreneur and might reveal hitherto unexplored personality aspects.

B1 displays strong personal values regarding family and work-life balance. Although he works hard, he took six months’ unpaid vacation when his child was born (“lovely time off”). He has strong self-confidence he can find work when he needs to. Like B1, B4 is confident: he secured multiple offers for his first job and never looked back. He reflects on his separation of intellectual stimulation from lifestyle satisfaction. He knows that what keeps him happy is not the same as what makes him economically productive. This degree of self-knowledge may represent a strong source of his self-confidence.

The review of personality attributes (or traits) brings to mind various ‘five factor’ models that have evolved in psychology and other domains. Digman provides a history of this framework from the 1932 list of McDougall – ‘intellect, character, temperament, disposition, and temper’ – to more recent lists of personality factors (Revised NEO Personality Index, or NEO-PI-R) from Costa and McCrae: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). (McDougall 1932; Digman 1990; Costa Jr. and McCrae 1992).

Self-efficacy and confidence. Confidence and self-efficacy appear to go hand in hand, and all entrepreneurs interviewed demonstrated strong self-efficacy, although B3 and B6 had their confidence dented recently. They express no doubt about succeeding in the future and believe lessons from their failed ventures make future success more likely. This view is not entirely supported by relevant literature: 30% of previously successful entrepreneurs succeed in subsequent ventures, while the probability is 18% for first-time and 20% for previously failed entrepreneurs (Holland 2008; Holland and Shepherd 2011).

B1 and B4 received multiple job offers as new graduates; they feel they will have no problem obtaining funding for their next venture, and B2 believes he is able to fix problems and get things done. B4 suggests self-efficacy has parallels with self-criticism and he can be his harshest critic. B6 possesses a strong sense of self-belief, but appears isolated by his circumstances and has nobody to turn to for peer-level advice.

Excess of confidence, or an overwhelming sense of self-efficacy may lead to hubris. B4 reveals: “I think you get an amazing surge of self-belief and optimism when you have a successful exit that can lead you to folly in the next venture.” (B4). He goes further, adding: “Eventually it all ends in tragedy, doesn't it, because [entrepreneurs] ... strive once too often and one-step too far.” (B4).

Tenacity. Two interviewees held onto failed companies for too long: B2 for 27 years and B5 for 16 years. Such positive tenacity can also be regarded as negative: it is evidence of persistence in the face of adversity, but alternatively it might represent bad, deluded strategy or a fear of admitting defeat. For B2, recapturing his company took several years of stressful debt repayments: he experienced several betrayals but retained his belief in a company making good,

high-margin products with responsibilities to staff and customers he won back. Consequently, he “retrenched to home ... and just trucked on.” (B2). This concept of a ‘phoenix’, or re-started company recurs throughout the research, particularly for UK and German companies (Metzger 2006).

B5 persisted through multiple years of poor sales, justifying his venture because closure was more costly than keeping the business going. This reflects his portfolio approach to academia and business: if his company represents a positive opportunity (‘upside’) with no strings (‘downside’) attached, why eliminate it?

Counterfactual thinking. The issue of counterfactual thinking, or ‘what if’ analysis, is presented in two ways. It appears either as an intellectual consideration (such as B1’s retrospective analysis as to whether his company would have been better aligned as a corporate project than a startup), or as an emotional expression in the form of regrets (such as B2’s personal distress for his family and alcohol abuse or B6’s regrets about working with unreliable friends). Clear-cut failure is not the only source of regret. For example, B1 regrets selling his first company profitably during the dot-com bubble because he feels its potential remained unfulfilled. Similarly B4 regrets losing control of his first failure, after building its success.

A trend emerges from the interviews connecting counterfactual thinking and control. From B4’s perspective, the cost of accepting VC investment was his inability to guide the board through avoidable strategic challenges. He remains frustrated by his inability to save the company. B1 is disappointed by his successful exit and realizes through counterfactual thinking that the cause of his frustration involves his loss of control. Even though he was well compensated, he remains disappointed by the delta between what actually happened and what might have happened.

Positive outlook. B1 and B5 were positive in describing their experiences, so setbacks do not appear to have affected them adversely: they seem to regard these as opportunities to strengthen their skills and learn lessons. This reflects research by Baron on Dispositional Positive Affect (Baron, Hmieleski et al. 2012). B1 regards himself as fortunate and explicitly thanks the work of collaborators. Like B5, he embraces new opportunities, exudes enthusiasm and takes risks. B2 looks for the positive side in a troubled business career and finds joy in the darkest of times,

explaining the fun and excitement of bidding up his company's assets in receivership. B3 is more withdrawn, preferring the comfort of technology, displaying a serious outlook on his experiences. B4 is guarded and reticent, careful not to reveal too much about his personal life.

Negativity and Critical outlook. Although positive dispositions were evident in UK interviews, there was also a strong display of negativity and bitterness, especially from B6. He appears unhappy with the outcome of his failed ventures and uncomfortable with his current position. As stated earlier, this has much to do with his view of his university counterparts: “they were quite happy in their own little academic world, spending taxpayers’ money, but never had what it takes to ... make something commercial.” (B6). He is mocking and bitter about his former colleagues and critical of UK funding, UK tax systems and the support infrastructure for startups in the UK. His career history might indicate a desire to leave academia and prove he could succeed outside the university: having failed twice, this causes enduring problems, and his bitterness remains. Perhaps he needs time to consider his experience and reconcile himself to his situation (Shepherd, Douglas et al. 2000; Shepherd, Patzelt et al. 2011) before he feels more positive about his future.

Entrepreneurial Response

Learning. UK interviewees indicate they learned lessons from their failed ventures: “I learned about understanding the true risk of a start-up.” (B1). B6 is clear: “You learn much more from defeat than you do from victory.” (B6). However, as well as gaining specific business skills, more subtle kinds of learning were noted - about future approaches and strategies.

Business skills include how to run and manage a board of directors (B1, B4); the value of acting decisively with problem employees and executives (B1); business disciplines such as accounting, legal structures and operations (B2, B3); how to handle external investors (B4), and the need to validate markets and customer propositions (B5, B6). More nuanced is learning how to learn, and how this develops over time (Cannon and Edmonson 2004; Cope and Cave 2008; Holcomb, Ireland et al. 2009). B3 provided an elegant metaphor from his work on simulated annealing

algorithms - incrementally solving and reconciling problems like annealing metals into further degrees of hardness and ductility. For him, learning requires time and experience over a series of formative experiences (good and bad, like heating and cooling), which cannot be taught in a classroom.

B1 also learned about asking questions to evaluate future opportunities. B3 explained this as follows: “I think when you have done one venture, you are very experienced ...because it grows through so many stages and then it collapses through so many stages.” (B3). The importance of seeing business issues twice (or more) may be critical. Perhaps entrepreneurs whose companies succeed first time simply learn how to repeat the same pattern, whereas founders of failed companies examine many what-if scenarios in their post-mortems. B6 explains why learning from failure is so powerful: “you don't know what could go wrong. Chances are that you'll discover sometime. If you've already learned what could go wrong, you probably will not make that mistake ever again” (B6).

Opportunity Identification. How opportunities are identified and assessed may depend partly on the personality of the entrepreneur (Ardichvili, Cardozo et al. 2003; Hayton and Cholakova 2010). Some are analytical and approach new opportunities as experiments that can be validated or disproven by asking probing questions (B1, B3, B4, B5). Others may be more intuitive, such as B2.

Self-confidence also plays a role. B1 has sought and found work in new places by networking as a self-starter: traveling to Australia with no business contacts and having to start afresh. B2 and B3 immediately restarted failed ventures with a more complete understanding of the business. B3 is philosophical about how he discovers opportunities: “I suppose on one level everything finds you” (B3).

B4 adopts the most analytical and intellectual approach. His method resembles that of A4, incubating new opportunities through a consulting company allowing him to prototype technologies and business models before making investments. B5 is different, with business scalability being most important. He believes an opportunity could be worth an academic paper, a research project or a new venture: each representing a different level of risk, effort and

resources. He can only start two companies in a decade, but is able to develop multiple academic papers in collaboration with others.

Risk and Uncertainty. After their failed ventures, B2 and B4 developed ‘portfolio entrepreneur’ strategies. “I am entrepreneurial. But I am not a very high-risk entrepreneur in anything I do.” (B2). By creating a number of companies and charitable projects, he retains some upside in corporate ventures and a positive work-life balance. B4 on the other hand, uses his consulting company to generate revenues while creating a platform for new opportunities. In 1998-2000, his consulting company spun out four funded ventures including several successful firms.

Risk is not easily assessed and individuals may evaluate uncertainty in different ways. B2 accumulated significant debt on credit cards to fund projects but perceived the risk as far lower than facing rejection from a bank manager. Fortunately, he repaid the debt and was never ‘caught out’ holding high-interest obligations when payments fell due. Similarly, B5 invested around three times the value of his house in his first venture, but over many years it went largely unnoticed. He suggests the level of visibility is important to the individual’s *perception* of risk: announcing a venture to the world creates a credibility risk for the entrepreneur as much as a financial risk. This personal exposure is paramount to B5.

Stress and Personal Cost. The personal cost of failed ventures seems to depend on circumstances. Some may have invested personal funds (B5, B6) or provided bank guarantees (B2); others risk other people’s money (B1, B3, B4). Also, speed of failure can impact the preparedness for survival. B2 describes how accounting errors were identified in his successful manufacturing venture. The realization was so sudden that the stress was compressed in time. There was no period of decline, which may provide a time of anxiety as uncertainty over survival increases by degrees (Pretorius 2008). Once the accounting error was discovered, B2 had little time to worry. B6 suffered from a long period of decline, dealing with prospects who may, but ultimately do not, sign. This anxiety was perhaps heightened by the closeness of a limited number of customers: while cash was declining, several large deals could have rescued the company, and B6 was critical in getting the customers to sign. They never did. This power relationship, in which his prospects (former colleagues) decided the fate of his company, is possibly the source of much of B6’s bitterness.

B3 points out that stress happens during the decline, not just the failure. Firstly, there is a stressful period when the company can be saved by the focus of management resources. Over time, under relentless scrutiny by directors, employees and investors, the probability of survival decreases. Selective stories may be told to persuade investors that customers will sign, and reassure employees of further funding: the founder may sustain multiple conversations involving different facts, which for some is a source of tension in itself. Secondly, there is the post-failure stage where a founder can reflect on what happened, deal with the consequences and focus on new opportunities. B3 points out that saving the company (which when successful is called 'recovery') is always stressful, but 'having failed' may not be stressful at all. His outlook is low-key and rational: apart from having to find a job, his failure appears inconsequential - by then his tension, stress and conflict are over.

This is not always the case. B3 and B4 emphasize the value of physical fitness in dealing with a failing venture. They regard this as one of the few things they can control to make a difference: remaining healthy and removing a point of weakness in their fight for survival. B2 took on personal guarantees from the bank and turned to alcohol: he regrets this aspect of his past but is proud to have dealt with it, having repaid his debts and returned to sobriety.

B1 and B6 view people as the highest cause of stress in a failing venture: dealing with problem employees; arguing with investors and board members over strategy; persuading customers to sign deals with a company that may soon be out of business; obtaining credit from suppliers for materials when there is insufficient cash; balancing the distribution of sensitive information, and handling lay-offs. These represent the hardest aspects of being an entrepreneur in a failing company.

CHAPTER 5C: ANALYSIS OF AMERICAN INTERVIEWS

This chapter presents findings from the Interpretative Phenomenological Analysis (IPA) of six Silicon Valley interviews, including (1) a profile of each case outlining some background, context and reasons for failure and a personal profile and commentary on each individual subject; (2) a thematic analysis arising from the application of IPA analysis to the transcripts of each interview, including a cross-case analysis of the American interviewees.

In this analysis, as outlined in Figure 17, each interview transcript was analyzed in line with the process described in Chapter 4 and illustrated in Figure 10, leading to a written profile of each interviewee (background, context and personal profile, as documented in Table 13) followed by a thematic analysis which has then been further extended to ‘enfold’ relevant literature with references to key themes.

Among the detailed analysis contained here, the goal remains to address a simple issue: what happened when these entrepreneurs failed, what did they learn and what did they do next?

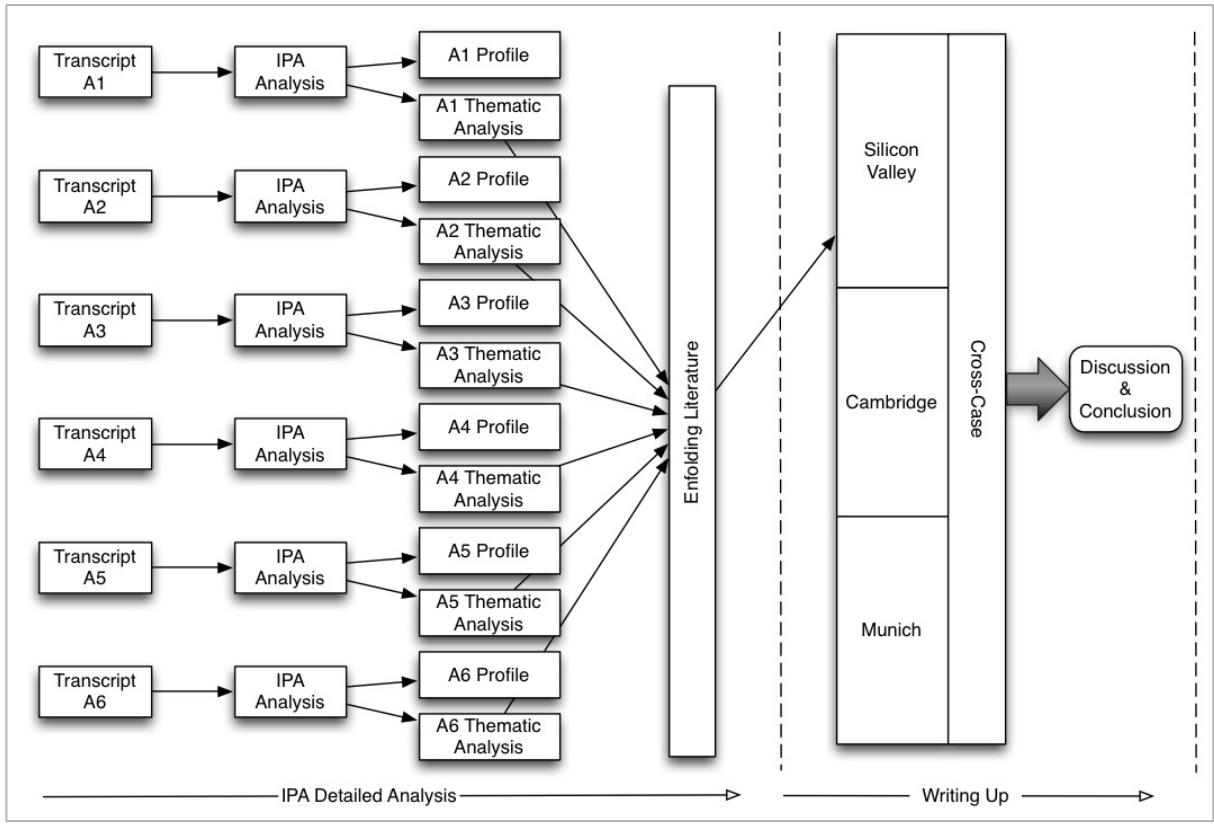


Figure 17. Process Schematic Outlining the IPA Analysis and Outputs for American Interviews. Each Interview is Analyzed using IPA Methodology before Performing a Cross-Case Thematic Analysis (within each Country, in this case the USA)

Summaries of American Interviews

PROFILE of A1. Chinese-American male, mid-40s.

A1: Background. A1 is a Stanford-educated industrial engineer running his second company in Palo Alto, California. After technical roles at Sun Microsystems and Oracle Corporation, he worked in executive roles at SAP, which offered him a perspective on German attitudes to business and entrepreneurship. His first venture was a US software services company for assisted living, which attracted venture capital, but failed four years later.

A1: Context. A1 started his healthcare software company after extensive diligence. He obtained financing from investors who knew him at SAP Ventures. With a technical co-founder he developed a platform in partnership with early customers. After four years, A1 could not secure further investment. He reflects on this experience, offering several reasons for failure: his inability to ‘change customer behaviour’ was crucial, as was low-price competition. He suggests the main driver of failure was poor sales performance: his market research showed strong potential but this failed to materialize. Investors lost their money and employees lost jobs after taking pay cuts to rescue the business. A1 handled the post-failure proceedings himself, learning how to wind up a company.

A1: Personal profile. A1 has a strong sense of confidence and self-efficacy. His prior financial success means he was less exposed to loss, but he has learned much from the experience. He believes his reputation remains intact – the failure has “not had a negative impact on me in the Valley.” (A1).

A1 demonstrates self-efficacy: he is confident and aware of his personal social and economic impact. He knows his tolerance for risk, which differs from that of his wife and parents. A1 also considers the wider impact of early-stage failure: “how do we preserve entrepreneurs ... so that they become reinforcing?” (A1).

PROFILE of A2. White American male, mid-40s.

A2: Background. A2 began programming at High School and later studied Art with Computer Science. He founded several software and consulting companies, securing multiple patents. His first founded a video compression company that received interest from investors who then tried to apply retrospective terms after their deal was done. In response, he returned their money and placed the IP in escrow. After a subsequent consulting venture, he founded his third venture and attracted \$8 million in venture funding. After several pivots in strategy, he built this into a successful social media business but it collapsed in acrimonious circumstances, leaving A2 facing personal bankruptcy.

A2: Context. A2 founded four companies, two of which have failed. His largest venture collapsed with insufficient funds and was sold for a nominal value. Before the 2008 financial crisis, A2 secured a cash acquisition offer, but his main investor tried to ‘shop the deal’ against the explicit instructions of the would-be acquirer. The deal failed and A2 had to rely on emergency business funding to survive. He went from a deal-in-hand to personal debts of over \$300k in a few weeks. He recovered from this situation by developing a piece of code on his own, selling it to a Swedish company and generating enough cash to pay off his debts.

A2: Personal profile. A2 remains bitter towards his main investor. He left Silicon Valley after his company failed, and now lives closer to his hometown on the East Coast – “I think in California in general I had done everything I wanted to do. I was kind of bored with it frankly.” (A2). During difficult times, he has appreciated the value of lawyers and advisors, either positive or negative. He feels the legal representatives of his advisors have bullied him but he has also used legal counsel to fight his own corner. He is tenacious and does not shy away from a fight.

PROFILE of A3. Indian-born female, mid-40s.

A3: Background. A3 was born in India and moved to Stanford University for postgraduate studies. After working in product management she earned a Berkeley MBA and founded a number of companies in security and search software. The second of these companies failed after several years due to funding problems and a strategic disagreement with investors. Throughout this experience, she enjoyed the mentorship of two professors, one of who died young. The conjunction of a failed venture and the death of a mentor caused her to reflect on her own life and goals: she started a mentor network in the name of her late professor, and this has grown significantly. She has subsequently started another company that ended in failure and acrimony with fellow co-founders.

A3: Context. A3 identifies differences of opinion between her management team and investors: this split the company and prevented additional funding being raised. One camp wanted to pursue a patent infringement strategy while she (and others) wanted to build an organic search engine. The cause of collapse was the lack of external funding, exacerbated by internal dissent.

A3: Personal profile. A3 is reflective about her experiences. After the company failed, she travelled extensively alone in India. She is empathetic and keen to understand others. On her return, she co-founded a social network of entrepreneurs in the name of her former mentor. She finds satisfaction in the collaboration she has encouraged.

PROFILE of A4. Iranian-born male, mid-40s.

A4: Background. A4 was born in Iran and moved to the USA as a teenager on a soccer scholarship. He remains a keen sportsman, using physical exercise to combat the stress he experiences in his start-ups. He runs an engineering consultancy, from which he developed several start-ups, some of which have failed. Early in his career he took the traditional approach to building a start-up: he now uses his consulting firm to identify opportunities and when one seems substantial, he forms a customer project with a view to spinning IP out of the incubator.

A4: Context. A4's most significant failed venture was a Voice Over IP technology which worked on existing telephone lines. It was technologically advanced in its time, but unable to secure the large telecommunication companies as channels. As with a later venture in automotive infotainment, lack of customer traction was the main reason for failure. When these ventures failed, the IP was simply folded back into his consulting company and he continued with limited consequences.

A4: Personal profile. A4 is logical in the way he approaches opportunities: he stays within his area of expertise (telecommunications hardware and networking), identifies a clear target market and invests a long period in planning before embarking on technology development. Despite this careful approach, at least two of his ventures have failed, due to being too early in a nascent sector.

PROFILE of A5. White American male, mid-40s.

A5: Background. A5 is a software executive in Menlo Park, California, co-founder or executive in more than five start-up companies in software and telecommunications. He suggests there may be more start-ups in Silicon Valley because more people with financial security are willing to risk time and money in new ventures, but success in Silicon Valley has become harder to achieve – equity distribution is less widespread, and concentrated in fewer founders. He comments on how salaries have changed too – start-up companies now offer higher compensation and there is less ‘sweat equity’ in growth companies than in previous generations.

A5: Context. A5 recognizes various reasons for his failed ventures: management team disagreements over strategy (especially funding and exit strategy); lack of funding and inability to raise more; and market failure (lack of customers). These firms have ended acrimoniously but A5 has been able to depart with no personal financial loss or debt except for the opportunity cost of potential earnings at a larger

company.
A5: Personal profile. A5 has been deeply involved in multiple start-ups and is more cynical than he was twenty years ago. A series of failed ventures diminished his appetite for risk as he established a family. He describes Silicon Valley culture undergoing dramatic changes – the enthusiasm and collective sense of opportunity has evolved into an elitist culture where some people have ‘made it’ and others have not.
PROFILE of A6. Iranian-born male, early-50s.
A6: Background. A6 was born in Iran (like A4) and came to the USA as a teenager, also on a soccer scholarship. He excelled at University earning a doctorate before enjoying a successful senior executive role at a leading telecommunications firm. He started his own company, based on many small companies he had seen (and bought) in his corporate career, and was surprised by how difficult this was. His first venture failed but has subsequently been successful.
A6: Context. A6 started an online video company around the same time as YouTube, but his company was unsuccessful, eventually being sold in an Action By Creditors for minimal value. Even though he brought with him a CEO-level business network, he was unable to control the funding, strategy, technology and talent required. He raised initial funds on the strength of his background, but later struggled to secure additional investment. When the company downsized, he brought in several CEO and COO-level staff. Venture Capital firms declined to provide bridge funding and the company closed.
A6: Personal profile. A6 is a successful large-company executive who struggled in his own start-up. He is now more comfortable collaborating with other entrepreneurs. He was unprepared for the intensity and demands of the entrepreneurial role and tried to delegate this too often; he was surprised by the lack of resources; he was disappointed with the unsupportive attitudes of venture capitalists; and he apportioned blame for various failings to others rather than taking responsibility himself.

Table 13. Summaries of Six American Interview Subjects, covering Background; Business Context and Reasons for Failure, as well as Personal Profile and Commentary (by Author)

Thematic Analysis Arising from IPA – Silicon Valley

In the overall American analysis, a total of 92 thematic codes (themes) were identified with a total of 873 references to these themes across the six interviews. A summary of the most frequently occurring themes is provided in Figure 18, along with an approximate mapping of themes into four further categories. The mapping in Figure 18 is intended to highlight main themes arising from the American analysis, the relative frequency of occurrence of each theme (themes in bold occur more often) and whether these themes are personal or social, and retrospective or forward-looking in nature. The allocation of themes into four quadrants is not based on prior literature review but this framework for presentation was included in the final section of the research design. Ultimately, however, Figure 18 reflects the author’s subjective view of how various themes might be visually grouped together.

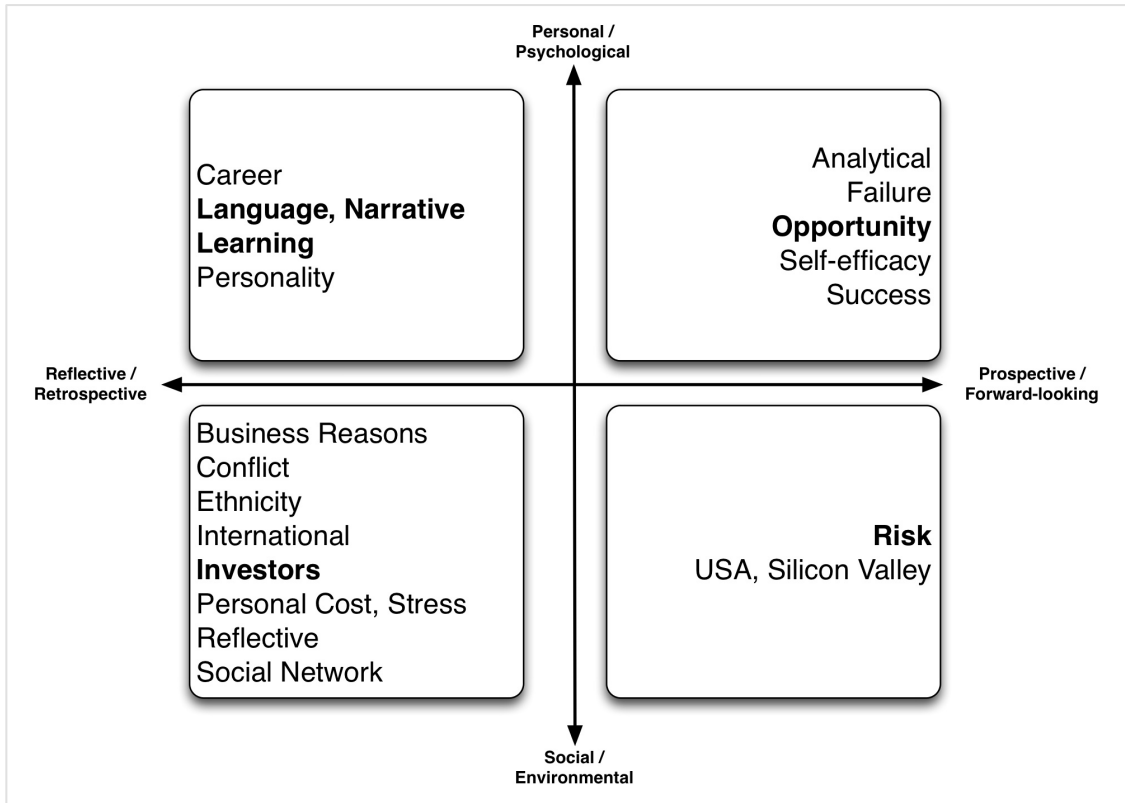


Figure 18. Mapping of Most Frequently Occurring Themes Emerging from IPA Analysis of American Interviews

A narrative account follows of these themes, combined with extracts of text from the interviews and relevant references to ‘enfolding’ literature to add context to the interview findings from prior research.

Business Context

Business Reasons: Reasons for failure and business context. American entrepreneurs described a wide variety of reflections on how and why their ventures failed. A1 planned his venture carefully and tried to do everything ‘by the book,’ yet it still failed. Reasons for this included sales execution, the impact of competition and the difficulty of changing customer behaviour. A2 recalls taking on personal debt while simultaneously being prevented from working because a formal board release was withheld. He blames his main investor for mistaken

strategy and incompetence in deal making. A3's company went dormant, employees were laid off and the future of its IP remains disputed. She appears passive when describing her experience – bad things have happened but she remains detached. A4 tried and failed to raise money for one of his ventures after building prototype technology. He says, “There was obviously something positive out of that. But it took two and a half years of my time and I put a lot of money into it.” (A4).

A5 describes how several of his ventures failed, one due to the “greed and over-reach of the founder” (A5). Another failed slowly when a long-successful product became obsolete without a replacement strategy. His third company was dis-intermediated in the market when customers started buying direct from a (larger) partner, and another was wiped out by the 2008 financial crash. A6 is reluctant to accept personal responsibility for his failed companies: “Failure has never been an option for me.” (A6).

A2 started his company without a detailed plan, just seed money and enthusiasm. A3 describes a disconnection between aggressive sales rollout and product readiness: the timing of sales ramp-up is a lesson she learned at her security company. A4 had a different problem: he had a well-targeted list of prospects but they did not sign deals, a factor that has terminated several of his companies. A5 sees causes of failure in management disagreement and neglect of core strategies. Often, he suggests, his companies had a solution looking for a problem.

Definitions of failure (and success). A1, A2, A3 and A5 all started companies that closed in administration. None of these entrepreneurs experienced personal bankruptcy, although A2 came close through personal bank guarantees. A4 and A6, both born in Iran, have more creative definitions of failure. A6's company ran out of money and creditors sued for closure in an ABC – ‘Action By Creditors’ - that involved a forced sale of the IP but he reclassifies this experience as an exit. If a failed CEO wishes to re-interpret his failure, it may be hard to question his opinion, and events within private companies are rarely transparent. However, later in the interview he admits: “It was a failure of not being able to return the money to the investors, which made me unhappy, and I'm kind of a very emotional person.” (A6). He reveals the truth only to declare the emotional aspect of his character rather than stating what happened in the business.

A1 was surprised by the logistics of failure – how long it takes to wind up a company and deal with legal and creditor issues – and A3 suggests there is a difference between the end of the venture and the process of self-recovery. She spent four months traveling and considering what to do next. She felt she recovered quickly: “I didn't really need recovery time.” (A3).

Observations about other countries. A1 received investment from German Venture Capital (VC) investors, leveraging his strong SAP connections. His subsequent failure was a disappointment to them: although they were not hostile he detects a “a strong residual of the German culture.” (A1). He also reflects on his Chinese heritage: in Hong Kong, entrepreneurs are unforgiving and “eat their young,” encouraging a resilience in which the strong survive and you “just pick yourself up.” (A1). A4 and A6 comment on the unique qualities of Silicon Valley. They see California as their home, where entrepreneurial culture is pervasive in a way totally absent in Iran. Born in India, A3 talks about an Indian VC friend and his religious views: “when things go wrong, ... people who are religious in India could easily feel that, ‘Well, if that's what God wanted, what can we do?’” (A3).

A2 is now working with a Swedish firm. He describes them as less innovative and more conservative than US companies (Berglund 2011), in line with what he regards as a Northern European stereotype. However, he says that Swedes and Germans are better at taking a long-term view of investments.

The American subjects have extensive international social networks (Anderson, Park et al. 2007; Klyver and Hindle 2007). Based on his (extensive) contacts, A6 suggests India and China are more capable of taking others' IP and exploiting it then inventing their own, and that Latin American countries are too laid back. A3 thinks national differences are misleading: “in Silicon Valley, it doesn't matter where the entrepreneur is from, what ethnic culture or background, the thing I see is people are very, very, very driven to make things happen.” (A3).

Analytical and academic perspective. Most US interviewees displayed analytical approaches to planning and opportunity identification. A1 is an engineer and former VC, and conducted the same due diligence he would have required as an investor. Although unsuccessful, A1's company was planned thoroughly: “we had domain expertise, we had technology expertise and

[were] delivering services with a hosted model.” (A1). A4 is also careful, planning each venture at length within his own incubator. A3 is analytical, though prefers to collaborate to generate ideas. A4 compares attitudes to failure with an engineering approach: he says that engineering involves breaking things and understanding why they break. He uses probability-based scenario analysis to probe what will happen if conditions apply, almost like a real-options approach (McGrath 1999; Cave and Minty 2004; Bratnicki, Austen et al. 2007). In contrast, the only non-scientist in the group (A5) tends to use the language of business textbooks, highlighting “innovator dilemma issues and ... owner/operator issues.” (A5).

A3, A4 and A6 gained post-graduate qualifications and A6 has a doctorate. Both Iranians suggest higher education in Iran is a handicap to entrepreneurship, as academics in Iran are socially celebrated but not action-oriented. A5 started multiple firms with advanced software algorithms and hardware technology, although he was a Political Science major at college, demonstrating his ability to learn quickly.

A1 is clear that market conditions were against him. A3 describes herself as analytical and carefully weighs each side of the story: she talks about game theory as an analytical framework when she might have been more decisive. A4, with his long-standing consulting practice, talks about resource utilization and allocation and is unemotional in describing his failures. In contrast, A3 and A6 both describe themselves as relying on gut feel: “I do rely heavily on instinct, my own instinct and instinct of others I trust.” (A6).

Investors. A1 secured funding by leveraging his corporate VC background as a first-time entrepreneur, but his estimation of VC value declined over time: he feels they added nothing to his business apart from cash. A2 feels betrayed by one investor in particular - a family fund without formal investment guidelines managed by an ineffective manager. During high personal stress (with his wife pregnant and his mother seriously ill), he was repeatedly denied funding he had been promised. He describes it as follows: “Our investors gave us bad strategy, bad advice and even though we succeeded despite them they screwed us in the end.” (A2). This culminated in A2 personally paying off creditors in a two-part funding exercise, but “we never saw a penny. [Our investor] essentially lied to us. He fucked us and ... [my co-founder] and I found the company about \$230,000 in debt.” (A2). Meanwhile, the fund manager “just covered and hid in

the shadows.” (A2). Prior to this venture, A2 founded a video technology firm where investors tried to seize preference rights. He prevented these investors from doing so, at significant personal cost.

One investor informed A3 (incorrectly) that existing managers had no rights to new funding. She found it difficult to understand why investors make false statements so openly and expect to get away with it. A4 made several unsuccessful attempts to obtain funding from VCs, who did not like his risk-mitigated consulting company model. They preferred him to be financially exposed and focused exclusively on their venture.

A5 has seen multiple companies fold. “Our existing investor essentially said, ‘We’re not putting any more money in.’ ... for \$5 million, they let \$30 million go down the drain.” (A5). He is critical of Silicon Valley VCs, not working hard enough and following the herd. A6 questions their honesty and integrity: “You can’t get these VCs ... to be honest with you.” (A6).

Serendipity and Luck. A1 recognizes that luck plays a large part in venture success and failure. Certain things cannot be controlled: “In some cases, failure or success is not indicative of what that person is like as an entrepreneur, it could be just the right opportunity or the right time.” (A1). A2 feels lucky that his first (failed) venture resulted in a patent being granted which he was able to exploit five years later. At the time of crisis, the company was a disaster but “it kind of worked out in a weird way in the end.” (A2). A3 and A5 both feel they have had bad luck, but this is neutral, not damaging: it is a way to rationalize their experience and does not cast a negative shadow over them personally (Liu 2010; Nielsen and Sarasvathy 2012). A6 is positive – he had bad luck in terms of business outcomes, but the technology worked and so to some extent his venture was a success.

Focus. US interviewees talked about the need for focus. For A1, mismatched customer expectations led to his first venture failure and he will not repeat the same mistake. A2 feels he needs multiple skills but he was focused on survival when he had to recue himself from bankruptcy: “Building the product was completely on my own. Marketing it I did in collaboration, ... you got to be completely focused on one or the other you can’t do both.” (A2). A5 has focused on the essentials, quickly identifying problems and putting together partnerships.

His single-mindedness contrasts with the lack of focus of others around him, which he sees is a (lack of) leadership issue.

Personal Cost. A1 experienced opportunity cost and family pressure, but little financial damage: “I did not take a salary for the last year or so ... because it’s the right thing.” (A1). The perspectives of his wife and mother are important, as they disapproved of the energy and commitment he made to his ventures instead of higher salary and prestige in a large company. His only physical concerns were energy and relaxation - “it’s a fact for all dedicated entrepreneurs. We all sleep poorly.” (A1).

A2 had severe health problems at the height of his business conflicts, exacerbated by stress. He adopted a restrictive diet and needed physical exercise to stop thinking about business. He was working 80 hours a week, making no money and accumulating debt while his mother was ill and wife was pregnant. Burnout seems to be a high risk in startups (Coombs, Webb et al. 2009). He now reflects that his health issues are part of natural adaptation: stress is neither good nor bad - you have to learn how to deal with it. A3 chose to resign from her dormant company rather than take it to closure – whereas A4 (and A1) chose to liquidate ventures completely. A4 sees the personal sacrifice in terms of pride rather than finance, even though he lost money. A5 thinks differently after huge personal effort on multiple failed ventures: “basically I spent four years there killing myself.” (A5). He took a year out when his son was ill, but apart from this he spent twenty years working hard on companies at significant family cost.

Creativity and Innovation. A2 feels proud of creating something, but acknowledges such creativity can set you at odds with the world: “When I tried to raise money ... I actually got laughed at by a bunch of VCs.” (A2). He is proud his patent was granted and he made money from its sale. A3 sees creativity emerging from collaboration, preferring the stimulus of sharing ideas to detailed analysis. This may be possible in startups but harder in large companies: after her co-founder left, “it was less innovative, less like a start-up feel, much more like a big company feel.” (A3). Since her most recent failed company, she has taken up social entrepreneurship and says innovation is just as creative in this sector.

Career. In exploratory Silicon Valley meetings, it was suggested that in America entrepreneurship represents a career. In the formal interviews, A1 regards starting a company as part of his career: it is like ‘finishing school’. A3 planned to start her own company as part of a career plan, too: failure is part of her career building process, a natural part of the cycle. A4 runs his consulting company and spins off new ventures: he is learning and building things that interest him, not to please others. A5’s career however represents a series of (so far unsuccessful) switches to capture value in early-stage companies.

A6 has the most prestigious career of the US interviewees with his senior executive position at one of America’s leading telecommunications firm. The blame he attributes to others (Poon and Lau 1999) in his failed startup is perhaps an attempt to deflect negative events from tarnishing this reputation.

Anger and Blame. Of all the interviewees, A2 was the angriest at his treatment by investors. Although now financially recovered, he remains bitter about one particular investor: he still feels that “I would not piss on him if his back was on fire.” (A2). Through a series of events, A2 was promised tranches of bridge funding but each of these failed to materialize. He accumulated personal debt of \$300,000 and still needed a release from his board of directors to work to pay off the debt: his investor would not give this release and he ended up even further in debt because he had to buy his ‘freedom’. He recalls how he was trying to do the right thing for employees, customers and partners but was consistently lied to by one investor. A5 was angry too – he had to fly weekly from California to Toronto for a CEO meeting that was frequently cancelled.

A3 sees the value but also the danger in getting angry (Jenkins and Brundin 2009; Welpe, Spörrle et al. 2012) although she does not appear to be an angry person: “anger and guilt can turn very negative and can fester. ... On the other hand, it could be a really strong motivator in self-improvement.” (A3). Perhaps A3 sees blame as reflecting attitudes of others - a ‘social construct’ - rather than having properties of its own. A2 blames his investor for his company’s demise (Rogoff, Myung-Soo et al. 2004), but took on the obligation for recovery himself. A6, however allocates blame to others (Miller and Ross 1975): “The main VC that was investing in [his

startup] did not like [the COO] at all because he wasn't doing his job the way he was supposed to.” He analyzes the situation as if he had no responsibility.

Control and Conflict. A1 was surprised at his poor treatment by investors. His subsequent venture is self-funded in an attempt to retain control. He tries to minimize the impression of team conflict within his failed venture, but remains reflective: “there are things you can control and things you can’t control.” (A1). A6 experienced problems adapting to the lack of control in a startup: “In the corporate world, ... anything I said and I did industry-wise, it was done. Nobody even questioned it.” (A6). Of course, ‘control’ means different things to different people. A5 describes a co-founder as controlling: in 2008, he bought back shareholder control for \$500k in a company where VCs had invested \$32m. Elsewhere, A5 watched indecisiveness on product strategy lead to a loss of control.

The greatest conflicts involved A2. One venture involved a dispute with investors before the company was even formed: he spent over \$100,000 fighting with investors to retain IP control and his eventual victory was gratifying. His second venture ended in personal and bitter disputes with investors: promises of incremental funding were repeatedly broken and his guidance on a potential acquisition was ignored, leading to collapse of the company. Even A3, seemingly reasonable and collaborative, had a strategic disagreement with investors over a patent-infringement strategy, and learned that strategy cannot be accomplished without control.

A5 appears to attract conflict. He describes joining a new venture: “Now that you're here we need to tell you, we have got to get rid of this CEO. He has been lying to the Board.” (A5). He has experienced conflict at most of his ventures over strategy, M&A opportunities, compensation and control.

Collaboration and Teamwork. A3 in particular emphasizes teamwork: she has co-founded several ventures with others and prefers to work alongside trusted partners, believing that collaboration includes planning as well as execution. After her second firm failed she founded a mentoring network, finding herself at the centre of a large number of startup discussions in which she was a de facto mentor.

Language and Narrative

Language. A1 controlled his interview. He pre-empted questions by telling stories and driving the conversation, used the third person to comment on his own plans, and asked questions repeatedly to confirm understanding. Careful to avoid offence, he suggests in his management style there was “no hostility at all”, “there was no emotional outburst whatsoever,” and laid off employees are “disappointed that we could not take it to the next level.” (A1). His commentary pre-empted difficult questions, ensuring his perspective was presented first. A6 appears persuasive, often inferring rather than stating specifics. In describing how investors viewed his CEO he suggests this perception was negative “according to them, ...whatever that means.” In this, he makes a statement, attributes it to someone else, and then sheds doubt on his or her views, all at the same time.

A1 reveals additional meaning about his experiences through his narrative: he is engaging and uses strong images (describing that in Hong Kong, entrepreneurs “eat their young”), telling stories such as why the English Navy dominated the seas (Captain Cook improved the sailors’ diet to reduce scurvy and thereby retained men for longer).

A4 avoids the word ‘failure’, preferring to say, “it didn’t succeed.” He is guarded in discussing his venture experience: when he reveals a failed customer deal he backtracks afterwards, saying it was not really a failure. Some of the interviews contain vague language. A6 is vague in many areas, perhaps deliberately so. He talks about his failed venture, then another project which was sold to IBM for \$90m: it would be easy to confuse the two (Baker 2007).

Narrative. A1 is skilled in handling the distribution of information at times of stress such as company decline and failure, knowing that dissemination leads to confusion and conflict: “Nobody needs to know the details. It just stimulates fiction.” (A1). A2 recreates quotations from memory: a compelling verbal trick but unlikely to be accurate. He uses understatement and irony to engage the listener: he says that laying everybody off was done ‘properly,’ and his failed venture was merely “a startup in trouble.” He becomes emotional when describing his company collapse in 2009. A3 is reluctant to cause conflict, she uses third parties to present options: rather than taking a position herself, she says, “I was reading somewhere that blame and guilt are

actually very cultural.” (A3). She responds to questions with other questions and is non-committal (revenues might “potentially follow.”)

A5 uses dramatic expressions: when they had no funds but were working hard he says “We were starving while ... doing these deals.” (A5). He can be sarcastic, though, and self-mocking. “It was pretty clear that I was the last stupid decision that guy had ever made.” (A5). A6 likes drama too. He teases with mentions of ‘top secret’ work he performs for ‘government agencies.’ This appears impressive but there is no way to confirm this. He also repeats similar idioms to fellow-Iranian A4 such as “to be honest with you.” These seem superfluous conversational words, adding little value (Riessman 1993).

Distractions. A1 distracts from difficult issues using jokes and laughter or the introduction of a new topic, including obscure words such as ‘copasetic’. He is used to ‘pitching’ ideas, providing succinct statements of market and product value, and steering around difficult topics when they arise. A3 provides non-sequiturs throughout the conversation. A6 also distracts, with subtlety. When asked how he addressed a problem he answers with reference to a ‘normal entrepreneur’, abstracting himself from the response. This has the effect of providing an answer but afterwards the interviewer remains uncertain what he meant.

Environmental Factors

Stigma and Reputation. The US interviewees consider stigma only to confirm its relative unimportance. A1 suggests perception of failure in America is complex and requires analysis but overall, he thinks failure is a stimulus to do better, and US investors appreciate the tenacity, resilience and effort of rebounding entrepreneurs. This makes America a more forgiving environment than others: “there are certain countries whether it’s Germany or Japan or Singapore where failure is a stigma, it’s a life long stigma.” (A1). He feels his executive SAP reputation has not been negatively affected by his failure. A6 is concerned for his reputation (Shepherd and Haynie 2011): as well as enjoying kudos for his work for the security services his reputation carries a financial premium: “I think because of my name and reputation I can get

them to increase their sales streams.” (A6). Perhaps A6 regards his reputation as a fungible asset that can be augmented and divided as needed. It can also be sold, and his current activities leverage this as advisor and board member. When asked whether his failed venture had damaged his reputation he replied: “Actually it made no difference whatsoever. Zero.” (A6).

Trust and Honesty. A2 feels betrayed by his investors but believes he acted fairly and generously to others. When his technology partner resigned he organized an exit package. He made personal guarantees to cover employee costs, arising from a sense of responsibility to staff. He strived to “do the right thing” even though others were not so fair (Klotz 2010). However, “my lesson was, you know there is very few people you can trust.” (A2). After her failed venture, A3 started mentor networks and helping others. “I don't feel any animosity towards any of my investors, nor do I feel very negative about any of us.” (A3). She believes once something is complete, you move on.

A4 is rational and talks about honesty. When asked to interpret something he says “I don't have a good answer for you on this.” (A4). Rather than improvise, he just says no. On the other hand, A6 was effusive in answering questions, not always accurately. He says, “We ultimately ended up selling the company to another venture firm. It was a fairly cheap one but better than nothing.” (A6). In fact, this is not strictly true –the ‘sale’ comprised a disposal of IP through an Action By Creditors. A6 is capable of polishing his reputation and diminishing all negative aspects of his career.

Ethnicity. Only two US interviewees were born in America, the others being born in Hong Kong (A1), India (A3) and Iran (A4, A6). A1 was raised in San Francisco and describes mentoring Chinese students at Stanford University, and explains how, “Their parents will put aggressive pressure on them to work for an established company as opposed to do a startup.” (A1). He also describes the strong preference of his parents and Chinese-American wife to avoid start-up life. A3 adds a cultural dimension, not just an ethnic perspective but regarding how new cultures are created. She notes a difference between large company culture and start-ups, the latter being more creative and innovative. Her Indian origins provide a non-Western world-view when considering failure: “I think in the Western world, there is a very strong sense of you control things. That's where the blame comes from.” (A3).

A4 sees ethnic origin as less important than personality traits (Saxenian 2002). Being in a minority is a greater driver than ethnicity, race or nationality: “I think that comes from being the minority and you want to prove yourself or whatever it is.” (A4). However, immigrants make more effort: “I know people ... with a limitation, people that are minorities, they always work harder.” (A4). His background in Iran pre-dates the 1979 revolution and he retains strong family connections there. His current knowledge suggests that Iranians “may want to do advisory [work], but they are not entrepreneurs, because they don't teach entrepreneurship in Iran.” (A4). He contends that Iranians are generally happy, and the social focus in Iran is more on lifestyle than urgent financial success, diminishing the inclination to try harder.

Social Network. All of the US interviewees felt their personal networks were important in surviving the experience of failure and recovery (Anderson, Park et al. 2007; Klyver and Hindle 2007). A1 describes how he retained supplier and customer relationships through the decline of one company and resurrected them for the next. A6 has a very strong and senior business network and used this to establish a post-failure portfolio, his reputation undiminished.

Family. A1 starts companies against the wishes of his family: “I’ll be honest. My wife really does not like me doing startups.” (A1). Furthermore, his family fails to appreciate his working so hard at such high risk for unclear rewards. He sees ‘social stress’ on his wife and parents that in turn impacts him personally.

Personal stress is not always direct. A2 suffered from seeing his mother extremely ill during his company collapse: “then she got cancer and she went through chemotherapy twice and it was very, very stressful to not have the time to go be with her.” (A2). He is grateful for his wife’s support, even though his investor problems threatened her health benefits during a difficult pregnancy. A3 also sees an indirect influence from her family. Her grandfather was a state attorney in India, and she shares a family history of public service. She sees her collaborative startup as a social experience: “It is like a family. Even if people don't know each other, they feel like a part of a family once they arrive.” (A3). A5 endured serious health problems with his newborn son, as has A6 with his father’s poor health: both of these were experienced during company declines and both responded by taking significant time off.

Personality Characteristics

Personality. A3 is curious: “What is it that motivates this person when I am sitting across from them? I am always thinking, ‘Why are they doing this?’” (A3). She is the only Indian-born subject and the only female interviewee, and her comments in the interview indicate she is more collaborative than controlling, more empathetic than driven (Zhao, Seibert et al. 2010). This curiosity may make her less desperate to succeed: as if ‘winning’ lies more in the understanding and connection with an issue or person than in the conclusion of a deal or a company exit. As the only female interviewee she observes men are more curious than women and therefore more likely to establish new ventures (of all kinds); though reluctant to generalize, she feels people are more likely to turn to women for advice and guidance. She also seeks to avoid conflict and controversy. She appears passive, sounding unemotional about her company’s decline, and views multiple sides of an argument impartially. However she seems less effective. When survival is at stake, she is more likely to resign than fight to the death as demonstrated by her resignations from two startups. She also differentiates herself from: “type A personalities who will do anything and not give up easily [which] seems a very common trait here.” (A3).

Self-efficacy and confidence. A1 is a successful software executive and venture capitalist. His sense of self-efficacy is illustrated in several ways: he is self-confident; he has self-funded his new venture to increase his self-perceived chance of success, and he has a clear belief in his future success. “I don’t have a diminished view of what I can accomplish and [failure] has not adversely affected my network or my personal view of what I want to do next.” (A1).

A2 speaks plainly of the highs and lows of startup life, through which he has to remain confident and effective (Sarasvathy 2008). However, at a low point, betrayed by his investor for a third time and ‘tricked’ into taking on personal debt, A2 was told the board would not release him from his director’s contract. He spent a weekend writing code for a long-standing personal project and within months this formed the basis of a private IP sale and employment contract to rescue him from personal bankruptcy. A2 sees nothing remarkable in this: he was capable of

doing so, and had some good fortune, but he had belief in his own abilities to make this happen. “I sat down on my own and I just wrote it, and then I started my own one-person company to, you know to be in control.” (A2). The self-efficacy of A2 is amplified by the severity of his decline before the recovery, quoted in full: “Not only did they fuck us, you know [our investor] habitually lied to us ... so five years of hard work and doing the right thing and bringing them a buyer for the company I almost ended up with ruined credit for life and totally broke. And, but what I did on my own then, was just sit down, create a mini venture and flip it and that venture for me ended up being a million dollar deal.” (A2).

A3 comments on her technical capability and experience, but is keener to talk about the value of her network than her own self-efficacy. She reflects qualities that are perhaps the opposite of effectuation - deferential and accepting – and instead of driving her own future she is more inclined to absorb causal forces around her (Read and Sarasvathy 2005). A4 is very confident (like A2 and A6) in his technical abilities. He describes his rapid rise in seniority and how he works with senior executives: this may indicate a need for validation by association with other executives to ‘prove’ he is effective. A6 is perhaps the most confident of the US interviewees – he starts companies, advises the heads of major multinational corporations and writes books. Talking to him gives the impression there is nothing he cannot do. Even though his company failed, his self-confidence remains: “My reputation and my technical knowledge and being known as a world-renowned scientist is still intact.” (A6).

A5 has strong belief in his own capabilities too. In one of his ventures: “the three of us set it up kind of just rolling up our sleeves and figuring it out.” (A5). It is notable that he has a political science degree and yet became involved in solving highly technical problems, a strong indication of self-efficacy. “All this stuff I had to learn and just absorb on the job essentially.” (A5).

Arrogance and Hubris. A6 can appear arrogant: he describes investors thus - “I wasn't impressed ... I didn't feel like I could communicate with them at my brain level.” (A6). Perhaps his self-belief stems from a rich history of achievement and experience. However, this may not all be negative – being over-confident and hubristic may increase the chance of future success (Hayward 2006; Hayward, Forster et al. 2010). He has no doubts that investors would back him again.

In conversation, A4 makes statements that are difficult to believe, as if exaggeration is part of his everyday business language: for example, he repeatedly talks about contacting the most senior executives at a firm (his law firm, customers, partners) as if he is trying to impress. Perhaps such cultural flattery and self-aggrandizement are part of his conversational style.

Tenacity. A2 is persistent. “I’m fully aware that I’m one of those people that just ... doesn’t know how to give up.” (A2). A3 however, is more accepting of unfortunate consequences and describes her attitudes being more aligned with Indian philosophy: “You kind of have to move on and things happen in life, which are not in our control.” (A3). Such acceptance may not engender persistence at all costs but A3 also describes herself as tenacious and personally resilient. A4 is proud his consulting company has been trading for more than twenty years: “I am very persistent, myself. I think my persistence is personal.” (A4). Tenacity applies to relationships in tough periods (Holland 2008; Holland and Shepherd 2011) and A2 is proud of the way he kept business partnerships informed during difficult times. “On a personal level ... we did not burn a single bridge.” (A2).

Drive and Motivation. Most American interviewees demonstrated a strong sense of motivation. A1 is driven by more than just success: “I wanted to do something that has a positive societal impact.” (A1). The fact that his second company is a more focused version of his first failed venture affirms this drive. A4 (like A5) sees incentives as less attractive than they once were in Silicon Valley. Stock option plans, which spread opportunity across a wide base of employees, are now more concentrated on senior executives and this alters the motivation of people in mid-ranking and junior positions. Also, the success of many people in the Valley has provided a financial buffer that diminishes their drive but increases their tolerance for risk in new ventures. A3 has a strong social motivation, perhaps arising from her Indian family tradition of public service. She contrasts this with the typical story in California: “In Silicon Valley, it’s a happening place, a lot of innovation, but there is a very strong culture of ‘what is in it for me.’” (A3).

Counterfactual thinking. Most American subjects ponder ‘what if’ scenarios, not all in a negative way (Baron 2000): A3 discusses what might have happened if her chosen board member had supported her; what might have occurred if her mentor had not died but been able to advise her through difficult times. She contemplates such questions, without regret or bitterness,

but simply reflecting. A5 is more actively regretful: several ventures failed to tackle ‘avoidable’ obstacles. In his ventures, he was adversely affected by circumstances and the strategic decisions of those more senior than himself.

A6 discusses counterfactual questions as a way to deflect responsibility; as if other outcomes had been possible he might be less responsible for his poor outcomes. He describes the constant lack of cash. “I never thought that we would be in that situation when I went into that venture ... otherwise I wouldn't have started [it] at all.” (A6). Then there are other questions: if only he had had a better team; if only he had pursued enterprise instead of consumer markets; if only his timing had been better. In general, most of the interviews reveal that these entrepreneurs are keen to question, critique and learn: but not A6, who left a successful career and appears to regret starting his own company.

Pride and Satisfaction. A2 regards rejection by investors as a source of pride. “When I tried to raise money ... I actually got laughed at by a bunch of VCs.” (A2). He is also proud of the patents he has secured - a permanent record of his skill as a technologist, something shared by A5 and A6.

Entrepreneurs find satisfaction in different places: A3 is most proud of how she looked after employees through difficult times. A4 is an inventor, and talks happily of “the box that I invented, I created.” (A4). He has run his own consulting company for 22 years and is proud of his technical achievements. A5 has been involved in several Internet infrastructure technologies in networking and software. He likes the contribution he made: “the App Server group was born and I was part of birthing that.” (A5). Because of his prior history at the world’s leading R&D organization, A6 has his name on thousands of patents and this is a permanent source of pride for him.

Entrepreneurial Response

Learning. A1 makes a simple statement about venture failure: “You learn so much.” (A1). He outlines specific lessons: as a CEO, the proximity to people allows insight into how people behave under pressure. He also explains how failed entrepreneurs accumulate learning which is best deployed in another startup, otherwise “it gets diluted and blends into middle management in other companies.” (A1). He feels strongly about the re-cycling of ideas and talent and is doing this in his second venture, applying lessons from his first failure to create a better outcome (Evans and Bahrami 1995). He also sees a self-reinforcing aspect of learning by doing – in learning how to learn (Argyris and Schön 1978): “Being an entrepreneur, you learn how to become an entrepreneur.” (A1). This includes practical strategies such as self-funding and keeping the company tightly controlled.

A2 learned much from his negative experiences: he now values the protection offered by lawyers and is aware of pre-emptive legal ruses that have been used against him. He sees the value of the ‘pivot’ or rapid change in strategy in response to changing conditions: he was initially funded to create an RFID software company but rapidly changed direction. He is a keen advocate of cross-disciplinary training (studying art and computer science as an undergraduate) but believes entrepreneurship has to be ‘learned by doing’ (Cope and Watts 2000). Like A1, he is self-funding his next venture and wants to retain control of strategic decision-making. A3 feels she discovered her real skills through her company’s collapse, that she is a “people person” and is best at building teams in supportive, collaborative environments. She accumulated additional skills performing multiple roles (fund-raising, management, product planning, sales) in intense periods of activity and under stress. This reflects the view that the locus of learning in a startup is concentrated in multiple activities in a compressed period of time (Evans and Bahrami 1995). Her most significant lesson from failure is the need for goal alignment between key stakeholders: “If there are disagreements, let's make sure they are not goal-level disagreements.” (A3).

A4 states his learning explicitly - “Every time I have a failure I say, ‘Okay, alright now, what to do?’ Then I am more hyped and more focused.” (A4). This might reflect an engineering mentality, evaluating bad results and continually improving design. He believes that new

ventures should be revenue-funded or self-funded: the externalities involved with VC finance are too distracting and can destroy a project.

A5 has seen multiple ventures fail, mostly because they are too early to market, recalling the ‘liability of newness’ (Politis 2005; Wiklund, Baker et al. 2010). Two of his ventures have failed due to technology immaturity in an emerging market. He sees a cycle in the life of startups, and the challenge is to spot what stage the firm is at and how best to move it along, balancing market and technology readiness. When looking at a new startup opportunity he believes he knows what questions to ask: “I need to understand the dynamics, the vesting, and the incentives, the timing.” (A5). A6 left the direct startup world and became a board member and advisor. He sees value in either being completely engaged in his firm or clearly taking a peripheral mentor role.

Opportunity Identification. A1 spent a lot of time in planning and analysis before starting his ventures. He learned from the first failure and is now keen to build on customer proof points rather than simply build a platform trusting that revenues will follow (Ries 2011; Blank and Dorf 2012). A2 sees incremental value within each venture and tries to remain flexible when opportunities arise, aware of context and timing as well as technology. When he was close to bankruptcy, he started a new venture and rapidly developed and sold it to restore his fortunes: in this case, his opportunity arose from necessity.

A3 relies on instinct and intuition and prior experience backed by analysis of markets and technology (Corbett 2005). She tries to separate ‘people and talent’ from ‘technology and market’ in evaluating opportunities, but a ‘gut feel’ influences her big decisions. A4’s approach has changed in identifying opportunities: his funding model has evolved from VC backing to self-funding and revenue-based growth. A5’s approach to new opportunities is jaded after multiple failures and he is less willing to risk time without extensive diligence. He feels he has learned all the questions to ask in a new venture, and the most important regards ‘market-readiness’ - a compound concept involving customer readiness, market size and timing, technology availability and access to capital and people. He requires a large salary and option pool before taking on risk: “I definitely am more of a mercenary at this point.”(A5). A6 came from a successful corporate career before starting his first venture and did not like the high risk

and effort required: “I don't want to go to another project that ultimately ends up not paying.” (A6).

Teaching. A3 talked extensively about mentoring. She was mentored by two professors and started a mentor network of supportive friends and advisors. She feels strongly about mentorship and inspiration: describing her first startup “I was very inspired by the CTO, who was a brilliant, legendary entrepreneur.” (A3). When a mentor died, she felt it left “a huge void in Silicon Valley in the entrepreneurial ecosystem.” (A3). It is significant that her venture failure coincided with the death of her Stanford mentor: perhaps in her case there is a connection between grief and recovery and her need to provide mentorship to others (Shepherd 2003; Shepherd, Wiklund et al. 2009).

Risk and Uncertainty. A1 contrasts his own perception of risk with that of his family, which is much less risk-tolerant. He believes however that their emphasis on company safety is misplaced: “[Large] companies don't offer the safety net ... safe havens doesn't exist.” (A1). He sees this among Chinese students he is mentoring today. He is careful to avoid risk in his own way: financially he used other people's money ('OPM') and lost it. Apart from loss of salary and opportunity cost, he did not lose out. A2 is prepared to take risks, especially when backed into a corner. He spent over \$100,000 on legal fees to protect IP he had created when threatened by rogue investors.

A3 has worked with other co-founders: this may indicate a need to share the risk, especially involving the “very, very intense pace that is in a Silicon Valley start-up.” (A3). A4 and A6 developed a portfolio approach as a result of failed ventures. A4 runs a consulting company in parallel to his new ventures, incubating new projects. He collaborates on billable projects with a customer, validates the opportunity and then spins out a new company when appropriate. A6 now does the same, advising a range of early-stage and growth companies and avoiding the concentration of risk in one location. A5's appetite for risk has diminished over time too, in line with his personal (family) responsibilities: he only risks what he can afford to lose (Dew, Sarasvathy et al. 2009). He sees this as a function of changing external conditions (less upside in Silicon Valley, fewer opportunities) and also his own maturity: “Nobody works that hard anymore. No one is willing to give up family.” (A5).

Stress. A1 experienced stress in the relationships within his failed venture, although he tries to minimize this in his retelling. He reveals this at several points: “It’s a fact for all dedicated entrepreneurs. We all sleep poorly.” (A1). Also, he perceives that stress applies more to others - his wife and parents - than it does to himself. He describes how “It was stressful but ... a lot has to do with what kind of safety net is in place. But it was stressful because of the things you have to deal with.” (A1).

A2 comments that the duration of stress is important. “When the market crashed in 2009 I had to go raise money from [investors] every two weeks and I did that, I did that for a year. And I was under unbelievable stress.” (A2). He started construction work at home to have a physical outlet for his tension: A4 and A6 played soccer to keep stress under control. A4 comments on the sense of isolation, which makes stress more intense and personal: “There is a lot of stress. There is tons of stress. It’s a very lonely job ... it feels like that, the whole world is against you.” (A4).

CHAPTER 6: CROSS-REGION ANALYSIS

Introduction: Cross-Region Analysis

This chapter assesses findings from the Interpretative Phenomenological Analysis (IPA) of interviews in Munich, Cambridge and Silicon Valley, comparing themes emerging from each set of region-specific data to identify commonalities and differences between these three regions. Detailed analysis of the interview transcripts is documented in Chapters 5A (Germany), 5B (United Kingdom) and 5C (USA). The goal of this chapter is to analyze these attitudes to failure; to identify what commonalities and differences exist within and between regions, and whether this reveals issues of significance for each region under study. As this thematic analysis is performed, appropriate literature is referenced ('enfolded literature') to place these findings in the context of existing research.

The cross-region analysis process takes IPA to a level beyond that typically outlined in textbooks (Smith and Osborn 2008; Smith, Flowers et al. 2009), although there are precedents for cross-group IPA comparisons: Cope provides a comparison of British and American groups of failed entrepreneurs in his examination of learning from failure (Cope and Cave 2008; Cope 2011), as well as a co-authored paper on investors' attitudes to failure in the US and UK (Cope, Cave et al. 2004). IPA is an idiographic approach with a strong emphasis on the individual experience, in this case of the entrepreneur: for this reason, the cross-region analysis presented does not try to identify a deterministic or prescriptive recipe for how entrepreneurs in these countries will behave in future situations.

This cross-region analysis was performed in two steps: an initial informal and intuitive review was followed by a more systematic and rigorous examination.

To begin with, after extensive analysis of each subject and documentation of themes within each region, a preliminary view of the importance of themes was documented and categories of themes were identified in an informal manner. Preliminary impressions are noted here. (1) Major themes occurring consistently across all three regions include language and narrative; learning;

reasons for failure; opportunities, and risk. (2) Themes emerged from interviews in some regions but not in others, such as the discussion of stigma and the constraints of doing business in Germany among Munich founders, as well as the impact of Cambridge University for Cambridge entrepreneurs. (3) Individual entrepreneurs expressed themes that failed to emerge from anyone else, such as self-importance and blame (A1), a high desire for power and frustration at its absence (D6), and the strong presence of self-deprecating comments (B1).

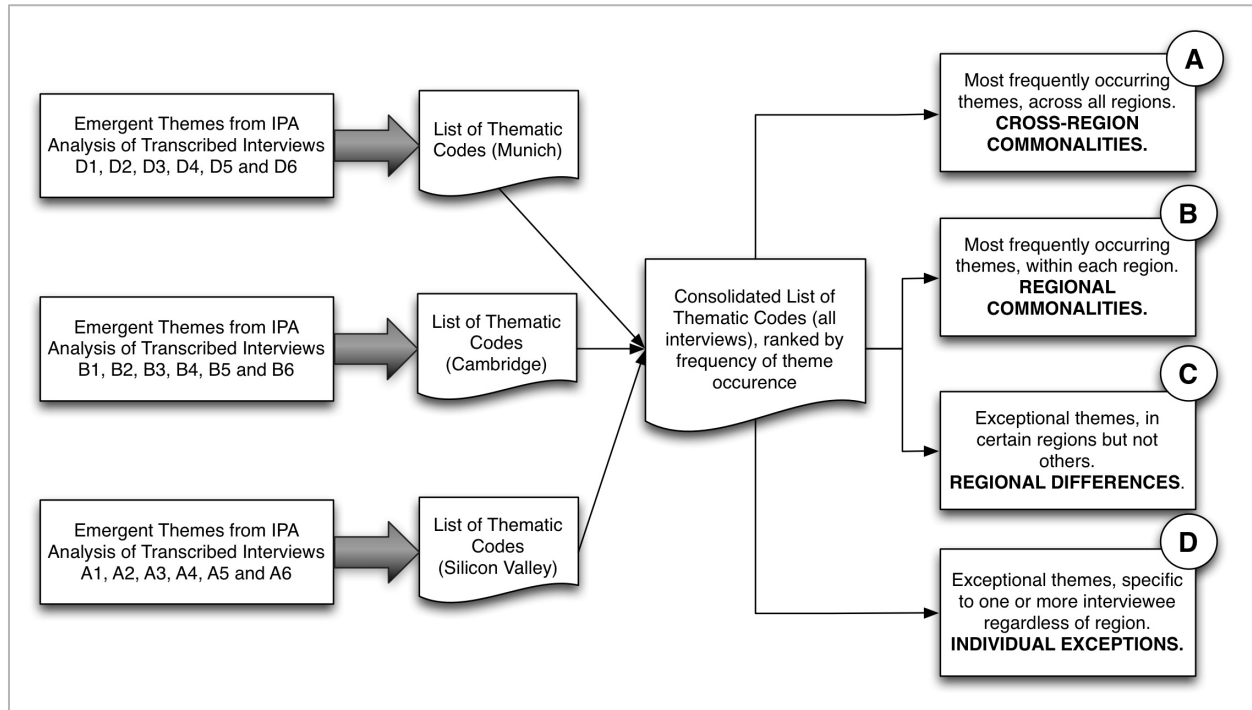


Figure 19. Schematic Describing how Emergent Themes Arising from IPA Analysis are Listed and Sorted to Identify Commonalities and Exceptions

To formalize these anecdotal findings from the IPA process a second, more systematic analysis was performed, as documented in Figure 19, including the incorporation of relevant literature to support evidence obtained from the interview analysis (the ‘enfolded literature’). Firstly, the note-taking and thematic analysis in each interview resulted in a list of themes (‘thematic codes’) and these were counted to establish the frequency of themes arising from each interview. Second, these emergent themes were consolidated to develop a ranking for most frequently occurring

themes by interview, by region and in aggregate for all interviews (see Table 14). As outlined in Figure 19, this formal process produces four categories of theme:

- (i) Themes that occur frequently across all interviews ('cross-region commonalities');
- (ii) Themes that occur frequently within each region ('regional commonalities');
- (iii) Themes that occur frequently in one region but not in others ('regional differences');
- (iv) Exceptional themes that emerge from only one or two individuals, regardless of region ('individual exceptions').

Although this represents quantitative analysis of qualitative data, it is intended simply to evaluate existing IPA analysis and identify trends within a large amount of data. It is not intended to establish a dataset for further statistical analysis. The listing of most frequently occurring thematic codes is listed in Table 14 below.

	Emergent theme (in order of total frequency of occurrence)	Frequency of Emergent Theme			
		Munich	Cambridge	Silicon Valley	Total
1	LANGUAGE, NARRATIVE	61	44	83	188
2	LEARNING	62	44	60	166
3	REASONS	60	61	29	150
4	OPPORTUNITY	32	25	37	94
5	SELF-EFFICACY	36	37	21	94
6	INVESTORS	27	30	33	90
7	GERMANY	83	-	2	85
8	RISK	31	21	33	85
9	PERSONAL COST, STRESS	41	16	24	81
10	REFLECTIVE	4	59	17	80
11	INTERNATIONAL	9	44	14	67
12	FAILURE	30	12	23	65
13	PERSONALITY	26	18	15	59
14	STIGMA	43	5	4	52
15	POSITIVE	29	17	2	48
16	ACADEMIC	26	16	4	46
17	SATISFACTION	15	19	12	46
18	FAMILY	28	4	13	45
19	COUNTERFACTUAL THINKING, REGRET	13	25	7	45
20	CONTROL	24	4	13	41
21	TRUST	24	3	13	40
22	CONFIDENCE	15	13	11	39
23	ANALYTICAL	9	6	23	38
24	ORIGINAL, CREATIVE	20	7	10	37
25	FRAUD, BETRAYAL	16	17	4	37
26	SUCCESS	11	11	14	36
27	PERCEPTION, PERSPECTIVE	20	9	5	34

28	TEAMWORK, COLLABORATION	26	4	4	34
29	TEACHING	31	2	-	33
30	LUCK, SERENDIPITY	23	1	8	32

Table 14. Listing of ‘Top Thirty’ Emergent Themes from IPA Analysis of all Interview Transcripts, with Counts of all Themes Aggregated and Sorted by Frequency (Most Frequently Occurring Listed First)

From the initial listing in Table 14, a further sorting of the data was performed to identify the most frequently occurring themes within each of the three regions: however, because the total number of thematic references varied between Munich (total 1,178), Cambridge (894) and Silicon Valley (873), the frequency was normalized to determine a weight-adjusted frequency, so that the most-frequent themes within a country (regardless of country) could be ranked. This variation in the number of thematic codes reflects the differing length of interviews in each region (Germany was typically longer). The resulting listing is displayed in Table 15 below.

Rank	Emergent Theme	% Ranking (*)	Country (**)	Frequency		
				DE	UK	US
1	LANGUAGE, NARRATIVE	12.79%	US	61	44	83
2	LEARNING	9.24%	US	62	44	60
3	GERMANY	9.08%	DE	83	0	2
4	REASONS	8.82%	UK	60	61	29
5	REFLECTIVE	8.53%	UK	4	59	17
6	INTERNATIONAL	6.36%	UK	9	44	14
7	OPPORTUNITY	5.70%	US	32	25	37
8	SELF-EFFICACY	5.35%	UK	36	37	21
9	INVESTORS	5.08%	US	27	30	33
10	RISK	5.08%	US	31	21	33
11	STIGMA	4.70%	DE	43	5	4
12	PERSONAL COST, STRESS	4.49%	DE	41	16	24
13	NEGATIVE, CRITICAL	4.34%	UK	-	30	-
14	COUNTERFACTUAL THINKING, REGRET	3.61%	UK	13	25	7
15	ANALYTICAL	3.54%	US	9	6	23
16	FAILURE	3.54%	US	30	12	23
17	ETHNICITY	3.39%	US	-	-	22
18	TEACHING	3.39%	DE	31	2	-
19	POSITIVE	3.17%	DE	29	17	2
20	FAMILY	3.06%	DE	28	4	13
21	SOCIAL NETWORK	2.93%	US	-	-	19
22	CAMBRIDGE	2.89%	UK	-	20	-
23	SELF-DEPRECATING	2.89%	UK	-	20	-
24	ACADEMIC	2.84%	DE	26	16	4
25	PERSONALITY	2.84%	DE	26	18	15
26	TEAMWORK, COLLABORATION	2.84%	DE	26	4	4

27	CONFLICT	2.77%	US	2	5	18
28	SATISFACTION	2.75%	UK	15	19	12
29	CONTROL	2.63%	DE	24	4	13
30	TRUST	2.63%	DE	24	3	13
* This percentage represents the ratio of [frequency of theme] to [total frequency of all themes] within the region.						
** This is the country within which the “% Ranking” is calculated.						

Table 15. Listing of ‘Top Thirty’ Themes Arising from IPA Analysis on Interviews, According to Frequency of each Individual Code including Outliers (Exceptions)

This analysis intends to highlight common (and exceptional) themes in a systematic manner: it does not propose a deterministic or prescriptive view of which attributes are likely to arise in future entrepreneurial situations. The following sections address an analysis of all 18 interviews and outline (i) cross-regional commonalities; (ii) regional commonalities; (iii) cross-case outliers or regional differences, and (iv) cross-case outlier or individual exceptions.

(i) Cross-Region Commonalities

Language and Narrative

A cross-region comparison of language and narrative involves two levels of analysis: the significance of the way language and narrative is used to reveal further insight, and analysis of the resulting insight itself. This is important because the methodology used in the research hopes to offer insight into the ‘lived world’ of the entrepreneur and draw conclusions from analysis in as unsolicited a manner as possible. Language therefore is an essential component of this analysis, and it is promising that so many language-related themes are revealed. In developing regional commonalities, examples are drawn from individual entrepreneurs.

An initial observation is that these entrepreneurs make good storytellers. Some in particular – D1, D4, D6, B1, B2, B3, B6, A1, A2, A3 – are highly skilled, capable of telling a compelling

story using a number of natural-sounding techniques to keep the listener engaged to control chronology and perspective (Downing 2005). These include construction of a narrative structure – starting simple, building tension, and culminating with a punch line; use of short sentences at different times to establish drama and variations of pace in storytelling, and engagement with the listener (the researcher) through confirming questions to ensure all details are understood and to maintain attention. Entrepreneurs’ verbal accounts of their experience are inevitably subjective: for example, a special edition of the *Journal of Business Venturing* (Gartner 2007) addresses the impact of entrepreneurial narrative and how rich story-telling may result in multiple interpretations of the same events (Ahl 2007; Baker 2007; Hjorth 2007).

D1 and A2 appear to give verbatim accounts with remarkable levels of detail, shifting the action in the story from the past to the present tense. Although such skills might appear contrived when de-constructed, they sound natural and unforced at the time. These entrepreneurs do not deliberate over how best to relate their experiences, but do so effortlessly. Even the subjects who sound less articulate such as D3, D5, B4 and A4 are still capable of relating dramatic stories about failure, betrayal, fraud and recovery.

Humour is used frequently (D1, D4, B2, B5, A1 and A2) as a natural part of the conversation, and sometimes to deflect from serious subjects the interviewee wishes to avoid. D1 is self-mocking and disarming and B5 describes his team as “Muppets,” which lightens the interview but also serves to lower expectations so his failure might be viewed less harshly (Fox 2005). A5 and B6 are self-mocking in their remarks, but this sometimes conveys self-pity rather than amusement.

Analysis of language can reveal what is important to the entrepreneur. B1 and D4 are positive and enthusiastic: people and events are “lovely”, “hyper-exciting” and “wonderful.” D4 describes how he “puts bread on the table” for seventy people in his startup, an image of providing sustenance for a large group: he is proud to have created employment and value in the lives of employees and their families (Downing 2005). This social dimension occurs in several interviews: A5 says that without his deals, employees are “starving.”

In extremis, language can be used to damage others: D6, still angry at his treatment by investors, talks about ‘revenge’ with destructive words such as ‘killing’ projects. A2 is mostly calm but turns on a lead investor: he “would not piss on him if his back was on fire.” A6 is curt and dismissive of his colleagues and investors, and happy to attribute blame to those who were close to him. Perhaps B6 is the most extreme. Although he talks positively and passionately about technology, he is cynical, mocking and cruel in other respects. He refers to “burning bridges” and uses the word “never” when talking about future relationships with former friends. This negativity and petulance indicates his response to failure may not yet be fully settled, and the dynamic interaction between language and thought (or *sense-making*) remains unresolved (Clarke and Cornelissen 2011).

B1, B3 and B5 engage the researcher with questions to confirm understanding of complex technology, possibly flattering him with more knowledge than he possesses. This simplification of complex technology was present in all, but B1 and B3 were also clear on business situations, on who did what and when: in failed ventures, there may be many conflicting parties and events and this can be difficult to keep clear.

Vagueness in language may permit the entrepreneur to play the ‘art of the possible’. A6 talks about his failed venture, then another project which was sold to IBM for \$90m: it is easy to conflate the two, confusing two interpretations for social or psychological benefit (Fletcher 2007). A2 talks quickly in a stream of enthusiasm and energy. He uses understatement and irony to engage the listener but gets emotional when describing his company collapse. A3 is cautious in her speech: reluctant to cause conflict, she uses third parties to present vague options rather than adopting a personal position.

Learning

Discussions of how failure leads to learning occur in all three regions. This applies to factual learning regarding issues such as law, finance and corporate governance, as well as skills, including reflections on how one learns how to learn.

D1 describes the intensity of learning when fighting to repay his company's debts: during this time, new problems required rapid reaction, heightening the experience and increasing the chance the lesson will be retained (Shepherd and Cardon 2009). This reinforcement of learning, a 'double-feedback' loop (Argyris and Schön 1978) exemplifies how failure (and recovery) intensifies learning. D1 and D2 learned that knowledge of law, tax and finance is required for a founder, even if advisors appear to take care of such things. However, D2 believes young entrepreneurs should not be over-burdened by finance and legal considerations, thinking they can "overwhelm the imagination" and damage creativity.

D3 highlights 'breakdown' events when learning is most intense (Brück, Llusa et al. 2010). He applies this to his current courses, forcing errors on his students by insisting on revenue from projects within a week. Most of these student projects fail, providing a 'safe' common experience of failure to analyze what went wrong: this is a cultural shock for many students, but D3 needs failure to be commonplace among his students in order for the lessons to work. It also reflects contemporary approaches such as the 'lean startup' method (Ries 2011; Blank and Dorf 2012).

D4 and D6 failed but this has not diminished their urge to do another startup. This confirms that despite learning more skills, they have not learned to stop. Perhaps they learn small new techniques but are incapable of learning the big lesson to do something else: having gone so far, they believe another venture will allow them to get it right (Hmieleski and Baron 2009). D6 adds that the most important learning is "all in the soft skills." Such lessons require multiple steps: the mistake itself, the consequences, and reflection on these consequences (Argyris 2002).

B1 explains how he gained due diligence insight for new opportunities from his first failure. B1, B2 and B4 educated themselves on business issues such as dealing with directors and investors. More nuanced is the skill of knowing how to learn, and B3 provides a metaphor for this with simulated annealing algorithms - through incrementally solving and reconciling problems (like annealing metals to achieve hardness and ductility), he increases his ability to deal with future problems. The importance of seeing business issues twice is noted: in a declining company, an entrepreneur sees his plans evaluated both on the way up and on the way down. B6 suggests entrepreneurs who succeed first time may simply learn how to repeat the same pattern.

A1 recommends that failed entrepreneurs deploy accumulated learning in another startup, otherwise the learning may be lost (Baker and Nelson 2005). A2 learned the value of protection by lawyers and acknowledges the benefit of the ‘pivot’ or rapid adaptive change in strategy (Ries 2011). He advocates cross-disciplinary training but believes entrepreneurship has to be learned by doing. A3 discovered her real skills by having to perform multiple roles (fund-raising, management, product planning, sales) in intense periods of activity and under stress, recalling that the locus of learning is concentrated in a startup within multiple activities in compressed time (Evans and Bahrami 1995). Increased self-awareness is important too: A5 sees learning from failure as a compound issue, giving him the ability to determine the ‘market readiness’ cycle in the life of startups and understanding better how his skills fit.

Reasons for Failure

Interviewees were keen to discuss reasons why their ventures failed. These reasons include: underestimation of the technology challenge (D2, B1); poor market timing (A5, A1, D3); lack of capital, and an inability to exploit growth (D3, D6, B5, A5); the ‘liability of newness’ (Politis 2005; Wiklund, Baker et al. 2010); lack of focus (D3, A4) and poor business planning (D3, D4, B5, B6, A5). Causes of failure are widely discussed elsewhere in academic literature (Bruno and Leidecker 1988; Richardson, Nwankwo et al. 1994; Pretorius 2008; Gulst and Maritz 2009).

Wider themes include cyclical economic factors: D5 and B2 appreciate how they can endure long cyclical downturns as long as they plan ahead. Decades of experience led B4 to conclude that control is essential: in his first venture he lost control to VCs and was unable to rescue the company. Some ventures failed through external factors like fraud (D1, D2, B2), or disagreements over strategy (A3, D6). B1 and A3 recognize that where disputes emerge over strategy, it is the responsibility of founders and CEO to resolve such personal disputes, not just to get it right.

D3, B6 and D4 remain uncertain why failure happened. A1 feels he planned his venture carefully and did everything ‘by the book’ yet it still failed. This may help to explain their confidence that given another chance, they would succeed.

Opportunity Identification

The ways in which entrepreneurs identify and evaluate their subsequent (post-failure) opportunity varies by individual, not by region. Two approaches emerge from the IPA analysis - analytical and intuitive - although all interviewees demonstrate ‘entrepreneurial alertness’ (Ardichvili, Cardozo et al. 2003; Tang, Kacmar et al. 2012).

The former academics that were interviewed tended to be analytical in identifying and evaluating opportunities (D2, D3, D5, B3, B4 and A4): opportunities are evaluated systematically for market size, technology readiness and scalability. B4 and A4 spend long periods on modeling, planning and evaluation before committing to new projects. It is worth noting that D2, D5 and B2 feel they restarted their ventures as a low-risk option. B4 appears the most analytical, seeing evaluation of opportunities as an intellectual exercise. He and A4 incubate new opportunities through their own consulting companies, allowing them to develop new opportunities by prototyping products and business models, similar to the Corridor Principle (Ronstadt 1988), where new opportunities only become visible from within a new venture.

In the interviews, there were some indications of a “real options” approach (McGrath 1999; Cave and Minty 2004; Klingebiel and Adner 2012), not just regarding opportunity identification but as an ongoing method of making decisions. A4 and B2 share a portfolio approach to their new ventures, where incremental decisions seem to arise from a continual review of potential scenarios, assessing the value and probabilities for each option. D5 has faced several failures and each time he weighed his options and continued with the venture, partly reflecting the extreme cost of failure in a German company, but also his long-term faith in his product. He is rational and unemotional and appears to continually recalibrate the risk-adjusted ‘real option’ value in his venture (Bratnicki, Austen et al. 2007), although this calculation includes non-financial factors such as social implications and cost to employees, as well as simply a financial return.

Most interviewees share a science or engineering background but some have a more intuitive approach to opportunity identification. D4 is the most extreme here, being almost reckless in tackling opportunities without detailed plans or funding. He talks about the ‘internal logic’ of startup entrepreneurs, describing startups as a ‘logical’ thing to do at the time, even though they

might prove unsuccessful, combining self-belief, a suppression of risks and the opportunity cost of ‘missing out’. D1 analyses the financial opportunity in new ventures but takes decisions based on personal and family considerations as well as the numbers (Ardichvili, Cardozo et al. 2003): B1, B5, A1 and A5 take a similar approach. A3 too relies on ‘gut feel’ instinct and intuition, backed up by analysis of markets and technology.

Risk

Discussions of risk are common in all three regions, but several Germans (D1, D4, D6) refer to a high degree of risk-aversion in Germany, possibly due to stricter bankruptcy implications (Fossen 2011; Lee, Yamakawa et al. 2011).

Interviewees have all started companies and thereby accepted a high level of risk: indeed, failure might be seen to confirm 100% risk. Most have learned to mitigate this in different ways: B4 and A4 through portfolio approaches and a consulting company (Westhead, Ucbasaran et al. 2005); D2, D5, B2 and A1 by re-starting ‘phoenix’ ventures they already understand (Wagner 2002; Metzger 2006), and B1 and A5 through increased diligence. After (multiple) failed ventures, B4 and A4 retain their private consulting companies, a revenue-generating platform for pursuing new projects.

B5 believes that visibility drives the individual’s *perception* of risk: when a venture is announced to the world, the exposure generates personal credibility risk as much as financial risk. D4 sees it differently. His sense of responsibility drives his risk level: having persuaded employees to leave good jobs, they now depend on him. For others (D1, D3, A5) knowledge of their situation defines the level of risk, and based on the quantity and transparency of information available, they can adjust their plans as required. Such a world-view appears to automatically evaluate what might go wrong, improving decision-making and confidence in tackling complex scenarios: parallels may be drawn here with real options theory (McGrath 1999; Cave and Minty 2004; Klingebiel and Adner 2012). Perhaps real options perspectives may also incorporate non-financial issues such as social stigma as well as VC attitudes and bankruptcy implications (Seung-Hyun, Peng et al. 2007).

D3 describes the risk levels he experienced in large companies (low), startups (high) and his current academic role (minimal). D4 sees things more simply, with reward (upside) being linked with risk: his appetite for startup risk went unrewarded but was part of the game. D2 and D5 remind us though, that the risk of failure in Germany is higher than elsewhere due to the personal tax liability when a company fails.

Risk can be subjective: B2 ran up significant credit-card debt to finance his projects because he regarded the risk (and effort required) as far lower than requesting a bank loan. B5 invested three times the value of his house in his venture, but over such a long timescale that it went largely unnoticed – his losses were affordable (Dew, Sarasvathy et al. 2009). A1 contrasts his own perception of risk with that of his family, but believes their emphasis on large company safety is misplaced – there is no ‘safe haven’ alternative.

Personal Cost and Stress

The personal cost of failure appears to be high in all interviews, with D6 and B6 suffering most.

A2, B2 and D6 suffered high personal consequences of failure (Ucbasaran, Shepherd et al. 2012): marriage breakdowns, alcoholism and serious illness. D6’s marriage ended - his wife left him and their two young children as his business was still failing. He was later hospitalized with exhaustion. He describes his energy levels dropping to “zero” and tells of a close friend in Munich who experienced the same level of personal cost and a decade of debt repayment. D6 invested his own money in his venture and has no reserves to call upon. He is currently unemployed and having difficulty finding a job or startup opportunity.

D4 suggests over fifteen years he earned less than he could have earned with lower stress as a Siemens executive. D5 endured extended periods where his company survival was doubtful and could have lost everything, but is unemotional about the experience, while A2 remains angry at his treatment by investors.

The personal cost of failure depends on circumstances: while D1 and D2 took on the burdens of personal liability, B1, B4 and A6 simply walked away at the end of the venture. This partly

reflects the stringent German bankruptcy laws compared to Britain and the USA (Seung-Hyun, Peng et al. 2007; Primo and Green 2011).

Speed and duration can also have impact. B2's apparently successful company collapsed overnight when accounting errors were discovered: the demise was so sudden that there was little stress at that time. B3 points out that stress lies in the decline, not just in the failure (Pretorius 2008). There may be an extended period of tension when, under scrutiny from investors, employees and customers, the probability of survival decreases. Stories need to be told to reassure investors and employees, and the founder may need to sustain multiple versions of the truth, a further source of tension. B6 had to handle prospects who promise to buy but do not sign. This power dynamic in which the customer (former colleagues of B6) had the ability to decide the fate of his company, is a likely source of much of B6's stress. B3 describes the activity of saving the company (which may succeed, and be called 'recovery') as always stressful, but 'having failed' may not be stressful at all.

A4 and A6 both comment on their loneliness and isolation (Kilduff and Brass 2010), and loss of control also contributes to stress levels (B4, D6, B6). However, this is not always the case: A3 accepts her situation when she loses control. B3, A2 and B4 emphasize how physical fitness helps sustain a failing venture, representing something they can control. B2 took on personal bank guarantees and turned to alcohol: he regrets this (Baron 2000) but is proud to have dealt with both issues - having restored control, repaid debts and regained sobriety. B1 and B6 regard interpersonal relationships as the highest cause of stress in a failing venture, dealing with employees, investors and board members.

A2 experienced severe stress-related health problems at the height of his business problems. He was working 80 hours a week, making no money and accumulating debt while his mother was ill and his wife was pregnant: burnout is a high risk in startups (Coombs, Webb et al. 2009). However, in retrospect, he sees his health problems as part of a natural adaptation process: stress is neither good nor bad, you simply have to learn how to deal with it.

Self-Efficacy

All interviewees demonstrated strong belief in their efficacy as entrepreneurs, even at times of vulnerability and desperation (particularly D6 and B6).

D1 started his first business confidently, 4,000 miles from home with few resources, dependent on others to help him. He created a new sector, not just new opportunities, suggesting one needs to change one's environment not just one's situation (Read and Sarasvathy 2005; Pollack, Burnette et al. 2012). D2 demonstrates remarkable self-efficacy by re-starting his company during bankruptcy (Lee, Yamakawa et al. 2011). D4 is willing to take risks based on his judgment. He left a corporate job to start his first company, expecting his co-workers to quit their jobs too, but his high (false) expectations were not met. He regards himself as driven and self-confident, but believes others in Germany see him as fickle and lacking stamina (Engelen 2010). He enjoys being an entrepreneur more than making money and the self-belief and exposure to risk offers a personal thrill (Liu and Colman 2009). For D4, entrepreneurship requires more than success, it involves changing his environment into one in which he can succeed.

D5 is a calm, confident person when events turn against him. He describes himself as optimistic but not enthusiastic, respected by customers and investors for his integrity and honesty (Hayton and Cholakova 2010). He has demonstrated this by dealing with multiple crises at the same time. D6 does not refer to self-efficacy: his family lost confidence in him when his earnings diminished and he faced financial ruin. Yet despite his business collapse, marriage breakdown and poor health, he is developing a new venture.

B3 and B6 believe they can succeed in the right circumstances and that their learning from failure makes future success more likely, although this view is not entirely supported by the academic literature (Holland 2008; Holland and Shepherd 2011). B1 and B4 received multiple job offers as new graduates and anticipate no problem getting funding for future ventures. B2 also feels able to fix problems and get things done. However, excess confidence and an overwhelming sense of self-efficacy can be a sign of hubris (Hayward, Forster et al. 2010): B4 describes the surge of self-belief and optimism after a successful exit, which may lead to folly in

the next venture. He views self-efficacy as a parallel to self-criticism, suggesting he is his own harshest critic.

A1 is self-confident and believes in the future success of his company. A2 is proud of the intellectual property he generates but knows the importance of momentum in building companies: when things go well, self-belief spreads to employees, investors and partners (Baron, Hmieleski et al. 2012). At his lowest point, A2 spent a weekend writing code that within months provided an IP sale and new employment contract, rescuing him from bankruptcy.

A3 is perhaps an exception to the self-efficacy theme. She is also the only female interviewee. She appears confident in her technical capability and experience, but keener to talk about mentors and supporters than her own effectiveness. She reflects qualities that might be regarded as the opposite of effectuation: collaborative, deferential and accepting (Shinnar, Giacomini et al. 2012). A4 is confident like A2 in his technical abilities, but perhaps A6 is the most assured US interviewee – he starts companies, advises the heads of major multinational corporations and writes books. Talking to him gives the impression there is nothing he cannot do (Trevelyan 2007; Hmieleski and Baron 2009).

(ii) Regional Commonalities

Some themes occur frequently across all regions, but appear differently in each region.

Making References to One's Own Region

Most interviewees have extensive international experience and offer insights on how entrepreneurial failure is approached in other countries. The German subjects compare Germany with other regions. D1 sees Germany's Nazi history casting a shadow of national failure, leading to a cultural fear of failure and keenness for correctness, thereby avoiding unnecessary risks (Mueller and Thomas 2001; Hofstede, Hofstede et al. 2010). Germany is a successful economy and can afford strong funding infrastructure for startups (D2), but D2 believes this is poorly targeted and the success rate of very early-stage projects is low (Almus 2004; Lückgen, Oberschachtsiek et al. 2006). D3 suggests that Germans need to see evidence of success before

taking risks and a major societal shift is required to change this (Harhoff 2008). He also sees that startups represent a rare outlet for business-driven creativity in Germany and believes this should be encouraged.

Tenacity is regarded as a German strength (Wagner 2002), and tackling difficult, long-term technical problems is seen as a suitable focus for German entrepreneurship (D4). German subjects recognize how independence ('selbständig werden,' or becoming independent) is highly regarded but if this involves risking other peoples' money, it is perceived as disreputable (D4). There is a German emphasis on creating financial and social value (D4, D5) and stigma attaches to someone who "walks away" as much as to those who fail (Landier 2005).

In the UK, B4 credits Cambridge University for providing good infrastructure and support even when ventures fail, but although an ecosystem was created around the university (Garnsey and Heffernan 2005; Herriot and Minshall 2006) its momentum has not been maintained (B3). B3 also suggests that Cambridge is an easy place in which to appear successful, and as a result people may be less driven to succeed. The city is seen as too small and insular to sustain growth, and no self-reinforcing ecosystem (involving external institutions such as international banks) has developed (B1). Close relationships, especially through the university, can become too stifling and self-defeating, and envy often results when people succeed (B5).

Making References to Other Countries

UK interviewees regard America as more tolerant of failure. B1 suggests self-belief and self-efficacy differ by region, and attitudes to failure follow this (B1): entrepreneurs are simply 'less remarkable' in the USA (B2). B2 praises the engineering focus of German startups (Sternberg and Litzenberger 2004; Rocha and Sternberg 2005), but indicates these same engineers might be mystified by the existence of a 'portfolio entrepreneur.' Swedish-born B3 suggests there is a lack of respect for valuable experience in the UK compared with other European countries – in his view, failure may be just another outcome which the British use to under-appreciate people. B6 blames university scientists for his downfall and sees how much better German universities deal with scientific startups (Buenstorf 2007).

A1 reflects on German VC investors (his failure disappointed them) and his Chinese heritage, where entrepreneurs “eat their young,” and when you fail you “just pick yourself up.” Iranian-born A4 and A6 comment on the absence of California-style entrepreneurial culture in Iran, while Indian-born A3 recognizes a fatalistic cultural acceptance of failure in her native country. A2 is now working with a Swedish firm, which takes a longer-term investment view than American VCs (Berglund 2011). A6 typifies India and China as being more capable of exploiting the IP of others than inventing their own and sees Latin American countries as too laid-back. A3 suggests national differences in attitude are misleading: being ‘driven’ as an individual entrepreneur is much more important than your ethnicity or origin (A3).

(iii) Cross-Case Outliers: Regional Differences

German Exceptions: Tenacity; Collaboration; Luck and Serendipity

In the interviews, tenacity is regarded as a German quality (Wagner 2002; Stam, Audretsch et al. 2008). D1 chose to face his creditors and the German tax system, when he could have stayed away. He persisted in the face of personal and business adversity, including a three-year period of repaying debts incurred by another officer. D4 endured a decade of cyclical failure and recovery in one of his ventures. D5 suffered multiple complete collapses in his software firm over 23 years: he regards persistence as preferable to the personal consequences of bankruptcy (Seung-Hyun, Peng et al. 2007; Lee, Yamakawa et al. 2011).

D2 was one of eleven collaborators and investors in their spin-off company: when bankruptcy occurred D2 accepted all the responsibility but in his restart he took all the equity. D3’s first software venture was highly collaborative yet he recalls a lack of common vision leading to its demise. D5’s co-founders dropped out early, lacking sufficient skills to contribute despite their personal co-founder relationships. D5 feels more connected with companies’ technology and business challenges than with individual founders. D6’s ventures are collaborative as a founding principle: he regards drug discovery processes as too slow and they need to be replaced by a faster, collaborative approach.

Luck and serendipity featured highly in German interviews but less in the UK or USA. D1 believes in the impact of luck and chance on one's life (Cooper, Woo et al. 1988; Liu 2010). He travelled far from his family to 'prove himself' and start his own venture, but the tragic death of his father coincided with a time of significant business turmoil, changing the course of his life (D1). D2 also talks about luck: he feels unlucky to have been defrauded but fortunate to have extracted the assets and restarted the business. He believes he put himself in a position to be lucky, as does D3, whose persistence resulted in a perfect academic opportunity years after an earlier application had failed. D4 met his future angel investor through concerted networking: he suggests luck emerges from unlikely sources, and engaging with many possible collaborators increases the chance of success. D6 in contrast was fortunate to win a million-mark business plan competition, but sees this with hindsight as 'easy money' that caused problems later.

British Exceptions: Self-Deprecating Language; Teaching and Mentoring; Family

UK interviewees made frequent self-deprecating and self-mocking comments, perhaps confirming stereotypes of the British sense of humour (Fox 2005). B1 under-states his achievements, credits the contribution of those around him and describes himself as 'fortunate' to have the trust of others. B3 is self-mocking, doing the 'donkey work,' and B5 refers to himself and his team as "Muppets."

Regional exceptions arise from the absence as well as profusion of certain themes. American and German interviewees contain far more references to teaching and mentorship than British subjects (see Table 15), despite Cambridge University's world-leading status (Quacquarelli-Symonds 2012). All UK interviewees are Cambridge graduates, some with teaching experience, but their views on teaching and mentorship are separated from reflections on their ventures. In contrast D1 and D3 (leaders of Munich university entrepreneurship centres) weave teaching into their business careers. American interviewees share an emphasis on mentoring, especially A3. British interviewees fail to talk much about family, except B1 who describes taking extended leave to be with his young children. This contrasts to other regions. In Germany, D1 talks about the significance of his father's death on his subsequent business career. D2 and D4 received

strong support from their wives. D4 mentions his parents' supportive attitudes to entrepreneurship, as does D5 (Vasumathi, Govindarajalu et al. 2003). In the American analysis, A1 starts companies against the wishes of his wife and parents, who do not appreciate why he works so hard at such high risk for unclear rewards (A1). A2's mother became seriously ill and his wife had a difficult pregnancy while his company was failing: A5 and A6 also experienced family illnesses during the downturn of their companies, and A3 describes the influence of her grandfather (a state attorney in India) instilling an ethos of public service and social involvement (De Carolis and Saporito 2006). She regards her collaborative startup partly in terms of a social experience.

American Exceptions: Stigma and Counterfactual Thinking

Two significant themes that occur frequently in the German and British interviews are less prevalent in the American transcripts: stigma and counterfactual (or 'what-if') thinking.

German subjects talk extensively about stigma. D1 feels a strong enough desire to avoid bankruptcy and the stigma of failure that he works for three years to pay off debts accumulated by his partner. D2 experienced bankruptcy and suggests that stigma applies to failed entrepreneurs in Germany - "people remember" - though not to him (Crocker and Major 2003). D4 and D5 are afraid of the German bankruptcy process, choosing to re-start their companies rather than close them, and D4 suggests that in Germany a bankrupt is regarded as a perpetrator not a victim. D6 corroborates this view – he feels the stigma of failure keenly and is still shunned by potential employers.

B6 failed twice in his specialized scientific area: within this closed community, 'social' stigma has high impact and intensity, although British subjects said that such stigma had not restricted their career progress. Several British subjects indicated it might be less important to themselves than less entrepreneurial citizens (B2, B4): perhaps becoming an entrepreneur requires such reserves of self-efficacy that stigma remains observed but not felt. B2's experience suggests that stigma requires isolation (Wiesenfeld, Wurthmann et al. 2008) and when this can be minimized, so can the stigma. The lack of commentary on stigma by American interviewees may indicate it

is less of an issue for them: none of the US subjects sees lasting damage from their failed ventures.

Regarding counterfactual thinking, D1 recalls viewing his university contemporaries with well-paid and secure careers and thinking he had made a mistake becoming an entrepreneur. D3 misses the creativity of his startup. D4 missed the Netscape IPO window to reach a ten-year pension target with his company, making the ‘wrong choice’. Later, he left a second startup early in his stock-vesting plan. His reflections are not bitter but pragmatic: he focuses on making new opportunities not regretting missed chances (Baron 2000). D5 alone makes no reference to ‘what might have been’ - dealing with reality, rather than wishing events had turned out differently (Arora, Haynie et al. 2011).

British interviews reveal some regrets, regarding B2’s alcohol abuse and B6’s poor choice of business partners, but failure is not the only source of regret. B1 regrets selling his first company too early in the dot-com bubble. Similarly B4 regrets the loss of control in his first venture, as do B1, B2 and B6 (Baron 2004).

(iv) Cross-Case Outliers: Individual Exceptions

The following contains exceptions, which either represent the only interview to reveal certain themes or the only interview to not address them.

D4. Feeling More Like an American Than a German

D4 appears to be extrovertly positive and enthusiastic in his interview: things are “super”, “brilliant” and “fantastic,” or a waste of time (Baron, Hmieleski et al. 2012). He believes his personality is more American than German and considers his risk-taking attitude as un-German (Guo and Zhao 2010), feeling more at home in the USA, especially in Silicon Valley where he worked for several years. He grew up listening to American Radio in Germany and has always read widely in English, watched American TV and believes American business attitudes of

creativity, risk-taking and assertiveness are strongly preferable to German conservatism, and that his experience of failure would be very different in the USA (D4).

D6. Extreme Personal Costs of Failure; Frustration with Lawyers

D6 won Munich's first business plan competition but subsequently failed to secure further funding. He believes the actions of his investors and their lawyers were illegal: in particular, appointing an external consultant to replace him as CEO and subsequently buying company IP out of bankruptcy for a competing firm. He later discovered these aggressive legal tactics were indeed invalid but at the time he was overwhelmed by events: they damaged his reputation (Crocker and Major 2003; Wiesenfeld, Wurthmann et al. 2008) and subsequently this discouraged potential investors and employers.

D6 endured much conflict in the collapse of his first venture and describes the frustration of losing control and becoming an observer of the destruction of his own firm. He frankly describes the painful personal consequences of his failed ventures, including the extreme isolation and loneliness arising from his experience and the extreme cost to his health and to his family (a failed marriage).

A3. Emphasis on Mentorship and Ethnicity

In her interview, A3 describes how cultures develop and the difference between (slow and conservative) large company culture and creative, innovative start-ups. She sees collaboration and a willingness to listen to other perspectives as integral to the startup process (Leskinen 2012), confirming her strong advocacy of mentorship. As a student and a startup co-founder she enjoyed strong relationships with two mentors, both academics. When one died, she experienced more sadness and grief than when her startup failed (Shepherd, Wiklund et al. 2009). In his memory, she co-founded a Palo Alto-based mentor network that now claims five hundred supporters. Born and raised in Gandhi's home state, she describes how peace and fairness (Janson, Levy et al. 2008) guide her everyday life. She addresses attitudes to failure in a cultural

context: “When things go wrong, there is a lot of acceptance that comes from people from Eastern cultures.” (A3).

Her Indian origin and ethnicity provide a non-Western perspective of failure and its consequences: “You kind of have to move on and things happen in life, which are not in our control. I think in the Western world, there is a very strong sense of you control things. That's where the blame comes from.” (A3). This acceptance of consequences, rather than a quest for control and blame (Miller and Ross 1975), differentiates India from Silicon Valley. She talks about the essential self-efficacy of immigrants (Hart, Acs et al. 2009), validated by surviving the immigration process itself, but suggests ethnicity does not determine entrepreneurial success or failure – the culture of the entrepreneurial survivor does.

A4. The Absence of References to Learning or Learning-By Doing

A4 states “Every time I have a failure I say, ‘Okay, alright now, what to do?’” (A4). He is assessing the impact and consequences of a venture failure here, but he makes no explicit references to learning, simply recalling what happened in his various ventures. Perhaps this is reflected in his portfolio approach (Westhead, Ucbasaran et al. 2005), running a consulting company in parallel to incubating new ventures through customer projects. It is curious he does not refer explicitly to learning or lessons arising but moves on quickly in the interview, without reflection: it is possible that he sees learning is implicit, requiring no mention.

A6. Blame and Self-Importance

There was little attribution of blame among the interviews except in the case of A6. While others talked about failed ventures and conflicts with investors and board members, they did not allocate blame to others: typically they accepted responsibility for their situation (Poon and Lau 1999). A6 however, makes multiple references to people who led to his downfall. His investors, failing to secure his company's future, are described as unsupportive and intellectually inferior. People he hired, and who he was therefore responsible for bringing into the company, are weak and ineffective. Moreover, his strategy was poor – but he distances himself from the failed

strategy by attributing it to others. This attitude is striking: all the other interviewees demonstrate a strong sense of personal responsibility for their ventures, especially D1, D2, D6, B1, B2, A1 and A2. B6 allocates some blame to a cadre of academic customers but A6 is particularly quick to name investors and colleagues when explaining what they did wrong.

This is accompanied by a high degree of self-importance (Miller and Ross 1975). A6's background as a top executive with the world's leading telecommunications company may partly explain this, but he offers examples of his self-perceived effectiveness (being an advisor to secret government agencies and transformation executives), and describes himself as well-connected with many world leaders. In the interview, his approach was charming and effective, including his attempting to flatter this researcher with comments about his skills and experience.

CHAPTER 7: DISCUSSION

This research applies a phenomenological approach to examine the attitudes of habitual high-technology entrepreneurs to early-stage failure in several regions. The findings are presented in analysis Chapters 5, 5A, 5B, 5C and 6. This analysis is necessarily idiographic, concentrating on the subjective experience of individuals, rather than a generalized examination that may lead to a predictive model of behaviour.

The primary goal of this research is to investigate attitudes of early-stage technology entrepreneurs to failure: in phenomenological terms this means examining the ‘lived world’ of the entrepreneurs regarding a specific experience (failure), and making a direct connection, as far as possible, to individual subjects, seeking to explore and reveal the essential types and structures of experiences (Burrell and Morgan 1979), and to do so without preconceptions or assumptions. Themes that emerge from this examination do so directly from the interviewees: they are responding to the request to describe their experience of one or more of their failed ventures, and their reflections flow from this stimulus. Other qualitative approaches such as case study analysis require, to some extent, a pre-existing framework to evaluate responses to surveys or structured interviews, or may apply an ethnographic approach to observe entrepreneurs ‘in the wild’. In contrast, we have attempted to gain access as directly as possible to entrepreneurs’ attitudes about their failure experiences and their responses. Therefore, although any prescriptive findings emerging from this research should be viewed with caution, it is hoped that any statements made by the entrepreneurs themselves are as authentic and ‘unsolicited’ as possible.

A secondary purpose of the research is methodological: to explore this subject using a phenomenological method (in this case, IPA) and probe the limitations of this approach – is this a valid way of researching complex entrepreneurial experiences and outcomes? Does it reveal insights not possible through other methods? This chapter examines such issues, discussing the findings of the research and the appropriateness of the research methodology used here.

A third goal of this research is comparative, evaluating evidence from interviews to determine whether attitudes to failure differ between regions. As well as summarizing the analysis of actual

interviews, there is a cultural context to be discussed (Mueller and Thomas 2001; Hofstede, Hofstede et al. 2010).

In the spirit of ‘engaged scholarship’ (Ven 2007) the preliminary findings from this research have been documented and presented at multiple conferences (Cotterill 2011a; Cotterill 2011b) and in peer-reviewed journal papers (Cotterill 2012). The formal comments of reviewers and informal conference conversations arising from this wider academic engagement are reflected in this thesis.

On a personal note, this research offers subjective findings beyond the formal results discussed in chapters 5, 6 and 7. Firstly, there is the paradox concerning issues regarded as important phenomena by entrepreneurs (such as stigma), but which are not a practical concern to them: a social force appears to be recognized as important while its relevance is diminished. This may indicate that self-efficacy among such entrepreneurs is sufficiently strong that such social forces they understand *intellectually* may not impact them *personally*.

Secondly, some UK interviewees indicated the importance of social context: themes of bitterness and jealousy were observed, particularly regarding the attitudes of *others* to their failure. In the researcher’s exploratory first-year interviews, Cambridge was described as a network of (merely) 400 relevant people, and the veracity of anyone’s entrepreneurial account could be ascertained by two phone calls within that network. This may suggest that attitudes of British entrepreneurs to failure are affected by their social network and context, and this may be less prevalent elsewhere.

Review of Research Question

The research question for this thesis is:

How do attitudes of habitual high-technology entrepreneurs to early-stage failure differ in Silicon Valley, Cambridge and Munich?

It is appropriate at this stage to ask whether this question has been answered or whether the research drifted into other areas. Although a literature review (Chapter 2) disclosed that academic writing on entrepreneurship does not necessarily emphasize high-technology or habitual founders, the research design and interviews for this thesis are highly focused by all aspects of the research question. To the extent that differences in attitudes of individual entrepreneurs are documented in chapters 5A, 5B, 5C and 6, I believe that evidence indicates the research question has been directly answered.

It may be argued that a wide-ranging interview process such as that employed here inevitably risks deviation into areas that interviewees want to pursue. The skills of the interviewer help to mitigate this risk (Smith 2010) and such dangers are hopefully offset by the benefit that themes emerging from analysis of these interviews are as undiluted as possible, offering raw recollections of these difficult experiences and attitudes towards them. It must be noted that this researcher is new to academic research and much learning was conducted ‘on the job’ without a direct IPA mentor, but the skill of guiding interviewees to remain focused on the interview question is backed by 25 years of handling complex business meetings requiring tact, subtlety and clarity.

Although the interviewees occasionally stray into peripheral areas, the explicit aim of each meeting is to discuss their failure experiences, and transcripts demonstrate that this goal has been achieved. However, even when the subjects try to distract from painful experiences, this was noted as relevant behaviour: even attempts to distract might reveal something of their attitudes to failure.

Detailed findings presented in Chapters 5 and 6 suggest there are more commonalities than differences in attitudes of habitual entrepreneurs in early-stage high-technology ventures across these three regions.

More Commonalities than Differences

The interview analysis indicates that the attitudes of high-tech habitual entrepreneurs to failure present more commonalities than differences between regions. Perhaps the effort and motivation required to become an habitual entrepreneur establishes a core set of skills and attitudes that prevail regardless of location, region, ethnicity or background (Mueller and Thomas 2001).

For example, most interviewees see the importance of learning from failure (Cope and Cave 2008; McKenzie and Sud 2008; Cope 2011). Similarly, entrepreneurs appear to share similar approaches to opportunity identification (Sarasvathy 2004; Tang, Kacmar et al. 2012), although where differences emerge they are at the individual rather than regional level (Cave and Minty 2004; Hayton and Cholakova 2010). Another commonality lies in the willingness to discuss reasons for failure, sharing many themes in the literature on failure (Larson and Clute 1979; Zacharakis, Meyer et al. 1999; Pretorius 2008) but adding context with further, personal reasons.

Self-efficacy was well represented in all interviews and this offers the opportunity to discuss 'effectuation' as a lens for entrepreneurial failure (Read and Sarasvathy 2005; Sarasvathy 2008; Dew, Sarasvathy et al. 2009). Such self-efficacy may be needed to set against the personal cost and stress (Shepherd, Wiklund et al. 2009) which was recalled by all interviewees.

Finally, the importance of language and narrative is common throughout the analysis. Many category codes which were analyzed into emergent themes were explicit, but others involved use of language to reveal underlying themes such as family influences (A1), recklessness (D4) or bitterness (B6). Most interviewees present themselves as skilled, persuasive storytellers (Downing 2005; Gartner 2007; Harmeling 2011) even when describing their failed ventures, and the detailed analysis of language is essential to seek hidden meanings in the transcribed text.

The Significance of Effectuation

Although there are only limited explicit references to ‘self-efficacy’, many themes arising in the interviews point to the importance of this in the way entrepreneurs face failure and respond.

These entrepreneurs drive change in their industry and firms: ‘habitual’ entrepreneurs (MacMillan 1986) have started other ventures, and many do so after having failed. Yet comments they make about their experiences and actions consistently demonstrate that they feel they are not victims of causal forces acting against them, but controllers of their destiny. Even if they subsequently fail, their attitude may reflect the world view described by Sarasvathy, which is that entrepreneurs effect change on their environment, including business opportunities they identify and drive forward to a conclusion (Sarasvathy 2008; Read, Sarasvathy et al. 2011).

The interviews therefore display strong evidence of self-efficacy, regardless of region. The worst affected entrepreneurs (perhaps D6 and B6) remain driven to master their environment and build the business they desire. This goes beyond an awareness of skills and talents (Klyver and Thornton 2010; Pollack, Burnette et al. 2012) to make things happen, towards a holistic personal philosophy that an individual can change his environment (Sarasvathy 2008).

Language and Narrative; Implications for Methodology

In the analysis chapters there is evidence of how language and narrative reveal insights about attitudes of entrepreneurs to failure. For example, British self-deprecating comments indicate a willingness to acknowledge defeat (B1, B5), and American vagueness in terminology permits more positive inferences from loose interpretation of facts (A4, A6).

This evidence has two implications. (1) Findings emerging from language, which are outlined in detail in Chapters 5 and 6, indicate that the analysis of language and narrative is an important tool for this research. (2) It can be argued that this chosen methodology (IPA) identifies certain themes that *might only* emerge from analysis of language in such complex subject areas. Perhaps this suggests the analysis of language and narrative should play a greater explicit role in such future research.

Opportunity Identification

Interviewees in all regions described their approach to new opportunities, how they identify and evaluate them. Although this represents a range from highly analytical (B4, A1) to more intuitive (D4, B5, A3), the process of opportunity identification is considered to be an important aspect of failure and its aftermath. As ‘habitual’ entrepreneurs, these interviewees have faced the consequences of failure and found their next opportunity, so they each have personal reflections. One aspect of this involves the application of real-options theory to the way opportunities are evaluated, not just initially but at each stage of the development (and decline) of a startup company.

Stigma

In preliminary interviews in Germany, stigma arising from failure was identified as particularly strong in German society. Paradoxically, the formal German interviews contained extensive references to this phenomenon, yet only one interviewee (D6) felt directly affected by it. For the others, it was a social force, difficult to define but easy to recognize, which pervaded German society through history, the education system, the funding process for early-stage startups and so on (Crocker and Major 2003; Landier 2005; Burchell and Hughes 2006).

Even D6, who experiences stigma in practical terms as discrimination against him for new employment and investment, is keen to start a new company as soon as possible. Perhaps this reflects necessity – he needs to start his own company because nobody will hire him – but also demonstrates his individualism and self-efficacy. It is possible that individualistic entrepreneurs are predisposed to be at odds with a collectivist social context, and that anyone strong enough to become an entrepreneur in the face of such latent hostility may be less likely to be affected by such intangible social forces.

Another example of a social force is the ‘fear of failure’ referenced by German interviewees, but despite such forces the individuals concerned have persisted in their endeavours. As a phenomenon it is present in Germany and observed by interviewees (D1-6) and academics

(Wiesenfeld, Wurthmann et al. 2008; Damaraju, Barney et al. 2010): it is seen as impactful and important, but still largely ignored in practice by entrepreneurs. Perhaps this provides further indirect support for effectuation.

Review of Cultural Dimensions

A comparison of attitudes to failure in multiple countries invokes a discussion of national 'culture' and the findings of multiple GEM studies. Although Hofstede's studies are national rather than local, our IPA findings appear to reflect themes in his model (Hofstede, Hofstede et al. 2010) particularly concerning Individualism ('IDV') and Uncertainty Avoidance ('UAI'). German interviews emphasize teamwork and collaboration, reflecting a lower level of individualism than the UK and USA. Furthermore, recurring references by Germans to their own cultural issues indicate a self-referential concern. In terms of risk avoidance and the associated fear and stigma of failure, Hofstede's rankings are significant, indicating Germans may avoid risk and failure more than other nations.

On the other hand, this research might suggest that characteristics and self-efficacy of habitual (technology) entrepreneurs transcend regional boundaries. Baumol documents how (American) entrepreneurs have been perceived over time by large corporations and government (Baumol 2004), and introduces the term 'counterculture' to describe a degree of disruption in economic and technology cycles, which he suggests entrepreneurs are uniquely suited to trigger and exploit. Perhaps technology entrepreneurship is counter-cultural in itself: regardless of region, entrepreneurs present a counter-cultural stimulus to change the status quo, as well as an economic force taking risks to build businesses.

Theoretical Implications

The findings of this research offers implications for extant theory in multiple areas, within the methodological constraint that these research findings describe individual experiences rather than offering a predictive model for future behaviour.

Firstly, the analysis of entrepreneurial failure might be seen to support the rising importance of ‘effectuation’ as a way of understanding entrepreneurship (Sarasvathy 2008). Sarasvathy seems to offer two distinct contributions: theoretical and practical. In theoretical terms, she outlines a model for general effectuation (see Figure 20) and applies this to entrepreneurship, examining “Elements of Effectual Expertise.” The model outlined in Figure 20 (Sarasvathy 2008: 101) describes how entrepreneurs address their situation: developing new opportunities from self-assessment and skills, making an impact on their environment as well as creating opportunities within it. In contrast to a causal, mechanistic approach in which personality traits and economic factors intersect and lead to the creation of opportunity, Sarasvathy describes the ‘effect’ of entrepreneurs on the world around them. This is consistent with findings from the interviews: almost all display strong self-efficacy and an approach similar to that in Figure 20 before, during and after their experiences of failure. For example, D1 created an industry, not just a venture, to satisfy the opportunity he saw, and A2 transformed his failed situation through a clear assessment of available resources to develop a survival plan. Sarasvathy’s practical contribution includes the establishment of a collaborative forum for academics and entrepreneurs providing research, teaching and guidance for new ventures – the Society for Effectual Action (Sarasvathy, Ransler et al. 2011).

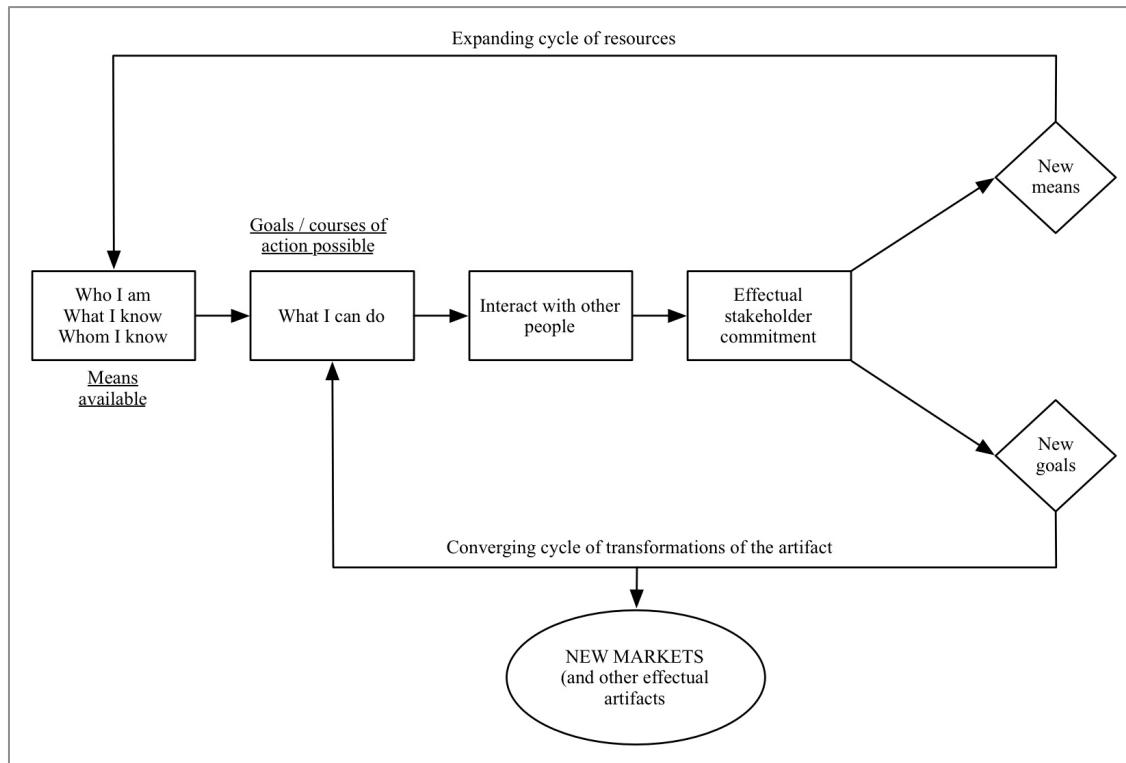


Figure 20. Sarasvathy's Dynamic Model of Effectuation (Sarasvathy 2008: 101)

Secondly, a number of theoretical areas can be revisited in light of this research: attribution theory, prospect theory and real-options theory. In assessing their failures, a number of our entrepreneurs attribute blame (Miller and Ross 1975; Poon and Lau 1999), but most do not. This may indicate that attribution theory may be of lower value to the examination of failure than expected: perhaps failed entrepreneurs want to understand and learn from their setbacks more than attribute blame.

Regarding prospect theory, all of the interviewees have undertaken ventures that failed, with some re-starting or founding new ventures: all have persisted through difficult times. These individuals have regarded the (new or restart) opportunity as holding more promise than a rational economic analysis might reveal, offering insights for prospect theory (Valliere and Peterson 2004; Holland 2008). For some interviewees (A2, D2, D5), their 'phoenix company' restarts and new ventures may represent a triumph of the 'prospect' over 'expected utility' in their decision-making (Kahneman and Tversky 1979).

Other theories may be impacted by this research. Real-options theory has been applied to entrepreneurial choices (McGrath 1999; Cave and Minty 2004; Bratnicki, Austen et al. 2007), and perhaps the failure stories of entrepreneurs in this research help to augment it. For example, most interviewees demonstrate an analytical approach to opportunities and decisions, weighing and quantifying alternative approaches. Furthermore, in failing companies, as resources decline and options diminish, decisions need to be made quickly and some (D5, B3, A2 and A5) consciously quantify alternative options and use scenario analysis in making these decisions. This is particularly true for B3, who distinguished the process of *failing*, in which many decisions are made during a period of declining control, from the *event* of failure. Perhaps the ‘cost of failure’ makes the value of real-options calculus more clear when choices need to be made and justified to multiple stakeholders in parallel under conditions of high uncertainty.

In the area of cognitive psychology, personality traits and confidence have been widely studied but the impact of Dispositional Positive Affect (‘DPA’) is a more recent development (Baron, Hmieleski et al. 2012). Several interviews are relevant here: with the possible exceptions of A3 and B3, most present high degrees of self-confidence and resilience, but several demonstrate extremely positive opinions on their own abilities and future success (especially B1, D1 and D6). The impact of DPA for B4 is explicitly stated, along with the risk of hubris: although positivity and confidence are needed to succeed, too much “can lead you to folly.” (B4).

Other areas of theory require comment. The interviews seem to show that social and environmental factors such as ethnic origins or social background appear less important than expected from a literature review. However, the importance of narrative and use of language arose frequently in the IPA analysis: although some theory has been developed in relation to language and narrative by entrepreneurs (Downing 2005; Harmeling 2011), this thesis may suggest that more focus is appropriate in this area.

Finally, the application of IPA needs to be evaluated in understanding complex and sometimes contradictory behaviours of failed entrepreneurs. Prior phenomenological studies have offered peer-reviewed papers conceptualizing failure as a learning journey (Cope and Cave 2008; Cope 2011) and an examination of entrepreneurial narratives (McKenzie and Sud 2008). It is hoped that this thesis contributes to this prior research specifically through offering a comparative study

involving multiple different business cultures, (technology) industry focus as well as a larger number of interviewees.

Review of Preliminary Conceptual Framework

Chapter 1 presented a preliminary conceptual framework (Figure 2), based on exploratory interviews and an initial literature review. This was not used to design data gathering or analysis, but rather was ‘parked’ after the exploratory stage, and now that formal research has been completed, it is time to re-assess its relevance. Based on the detailed analysis of interviews, the preliminary framework was revised to incorporate this data. An updated and revised version of this framework is provided below (see Figure 21).

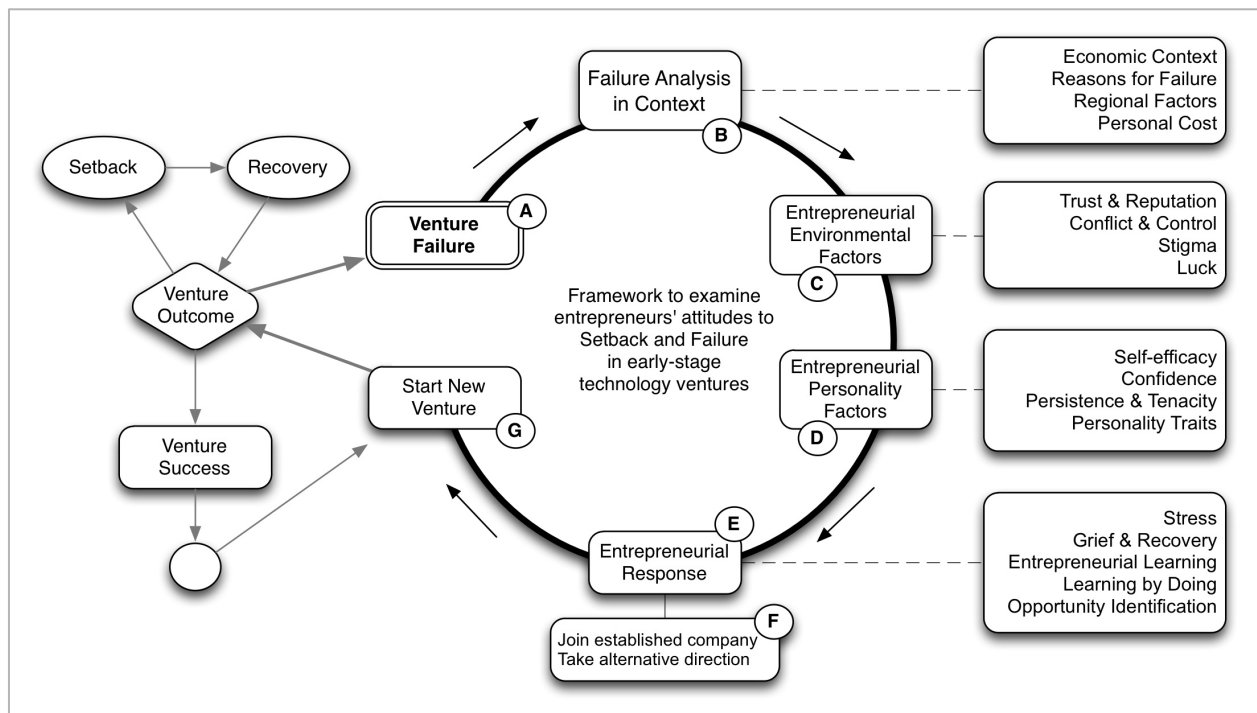


Figure 21. Conceptual Framework for the Examination of Entrepreneurial Failure, Revised and Updated in Light of Doctoral Research

During the research leading up to the revision of this framework, the researcher has presented and discussed it at multiple academic conferences in the USA and Europe. In the spirit of ‘Engaged Scholarship’ (Ven 2007), feedback on this has been obtained from various conferences

(Cotterill 2011a; Cotterill 2011b; Cotterill 2011c) and peer-reviewed publications (Cotterill 2012), and this framework attempts to provide a useful approach to examining the experience of failure. The framework presented in Figure 21 has been simplified to reflect actual themes arising from 18 interviews. Taking frequently occurring themes across all regions, the framework was revised to reduce the number of factors outlined on the right side of Figure 21 from 27 to 17; this represents a distillation of potential factors based on preliminary literature and interviews, to a more evidence-based list.

Changes were made between the preliminary (Figure 2) and final (Figure 21) versions regarding each of the four main aspects of the framework – (1) context; (2) environmental factors; (3) personality factors, and (4) entrepreneurial response. These changes are examined in turn. The context of failure analysis (1) eliminated three factors (types of entrepreneurs, cluster relationships and social networks) from the framework due to the relatively low impact of clusters and social networks found in the interviews. The ‘types of entrepreneurs’ identifier was removed because the ideographic nature of the final research did not seek (or yield) any insight regarding the generic classification of entrepreneurs.

As for environmental factors (2), ‘reputation’ was expanded to ‘trust & reputation’ in the revised framework based on the frequent association between these two themes. Other factors were also removed, lacking support from the data: socio-economic background, immigration and ethnicity. ‘Education’ was also removed during revision: although Cambridge University *as an institution* featured highly in Cambridge interviews, the impact of education did not. The number of personality-related factors (3) was also revised, consolidating persistence and tenacity into one factor (persistence & tenacity) while eliminating optimism, flexibility, passion and hubris based on infrequent occurrence in interviews. However, a new descriptor – ‘personality factors’ – was included in the revised version, to cover multiple themes emerging from entrepreneurs (such as passion, flexibility and creativity).

The fourth component in the framework – entrepreneurial response (4) – was more difficult to revise based on evidence presented in this thesis. While some factors were removed (re-cycling, knowledge acquisition and real-options analysis), new factors (stress and grief & recovery) were included, based on the intensity of the personal cost arising from failure experience and

reflections of individual entrepreneurs regarding how they recovered. After some thought, real-options analysis was removed from the framework: although addressed multiple times in the thesis, this approach to evaluating opportunities appears adequately covered by the ‘opportunity identification’ factor.

The revised framework might be used for further academic research, possibly to review similar experiences in additional fast-growing economies with developing entrepreneurial cultures, such as China and Brazil. Practitioners such as entrepreneurs, advisors and mentors may also use it as a guide to structure evaluations of their failure experiences, including counselling for recently failed entrepreneurs: a suitable application of this framework would be to work with Venture Capital firms to apply coaching techniques for the rapid ‘recovery’ of entrepreneurs. If it is true that habitual technology entrepreneurs have experienced common (and exceptional) issues and reflections, this may be useful to future entrepreneurs in recovering from their own failed ventures and accelerating their next endeavour.

CHAPTER 8: CONCLUSION

Main Conclusions

There are five main conclusions from this research, regarding (1) core findings; (2) implications for effectuation; (3) the importance of language; (4) the appropriateness of the IPA methodology; and (5) implications for practitioners.

(1) This research suggests there are more commonalities between regions than differences.

Habitual technology entrepreneurs who experience early-stage failure appear to consider similar things: what was the reason for the failure, what have they learned, and what is the next opportunity? These are covered extensively in chapters 5 and 6. However, despite the commonalities, there are still issues such as stigma arising from failure that is highly prevalent in Munich, less so in Cambridge and very little in Silicon Valley. This phenomenon appears to exist as a social construct, and is widely reported even though the people who are the alleged victims (entrepreneurs who fail) may not themselves feel affected by it.

(2) Implications for effectuation. Despite what appear to be different operating environments and business cultures in the three regions, these entrepreneurs possess high levels of self-efficacy which enables them to act in ways that override regional and cultural constraints. For example, our German entrepreneurs have all started and re-started multiple businesses in face of the cultural pressures, knowing that such ventures are high risk and the cost of failure seems particularly high. The recurring evidence of self-efficacy lends support to the wider theory of effectuation, in which entrepreneurs tend to have an effect on their environment, rather than reacting to psychological, social, economic and other causal factors around them.

(3) One consequence of the IPA approach is the clear importance of language and narrative in the interpretation of entrepreneur's attitudes. As IPA makes full use of verbatim interview transcriptions, language represents a medium of interpretation and so this should not be a surprise. However, the frequency with which language reveals implied meaning, or represents notable behaviour by the entrepreneur, is striking. It is difficult to see how such insight might

emerge from alternative, more structured approaches, which may limit the broadness of expression in the interview process.

(4) It is hoped this research confirms that IPA provides an appropriate methodology for gathering rich data in examinations of new domains and new territories, particularly when addressing sensitive and traumatic events and relationships such as entrepreneurial failure. However, this researcher is an experienced entrepreneur with failed ventures of his own, which may have made access to relevant subjects more feasible and made subjects more willing to share experiences, but also introduces a potential personal bias into the research. It is hoped this bias has been minimized by careful research design and the use of IPA 'bracketing' to redact occurrences of such bias. Therefore, a mixed conclusion may be drawn: that IPA is capable of revealing insights about complex and traumatic experiences, but this does not necessarily improve access to, or quality of interaction with interviewees: perhaps the skill of the researcher is particularly important to the research outcome.

(5) The commonalities in attitudes to failure of habitual high-technology entrepreneurs in early-stage ventures might suggest that the conceptual framework outlined above (see Figure 21) could be used in discussions with (future) failed entrepreneurs as they evaluate their next steps. This might demonstrate another application of 'engaged scholarship' (Ven 2007), enabling an obvious crossover and communication point between academic and business domains. Furthermore, such a framework might be enhanced and extended by such application.

This researcher, reflecting on his extensive personal experience, might suggest further conclusions, although these are not necessarily supported by evidence from this thesis. One such reflection is the importance of failure for future entrepreneurs: if failure is so frequent, then it may appear short-sighted to omit such a topic from university courses on entrepreneurship, or to neglect to support failed entrepreneurs when there is so much focus on other aspects of entrepreneurship through incubators, student startup organizations and public policy. The narrative accounts of entrepreneurial failure in this thesis, and the framework for analysis of new cases, may provide fertile material for future teaching and counselling activities. A further insight relates to the international context of this research: this thesis has examined three regions with a specific methodology, and perhaps this approach along with a revised framework can be

applied to additional regions, particularly areas of high economic importance such as China, India and Brazil.

Limitations of this Research

There are several possible limitations of this research, related to how it was conducted and what it revealed.

Firstly, the methodology applied here (IPA) has not been widely applied to entrepreneurship research and although there are precedents for phenomenological studies (McKenzie and Sud 2008; Cope 2011), there are fewer academic references than for other qualitative approaches. Furthermore, IPA results are idiographic in nature and do not support the generalization (or universalization) of findings to a wider population: not only is sample size small (although this thesis includes a large number of interviews – 18 - by IPA standards), traditional sampling logic simply does not apply. Furthermore, since IPA focuses on the individual and their worldview, triangulation is not merely difficult but may be regarded as redundant. When facts came to light that could cross-reference events and opinions presented by the interviewees, these were incorporated into the analysis. However, establishing the veracity of the entrepreneurs' accounts is not the researcher's primary focus, but rather understanding the meaning of their experience *as they see it*. The level of description emerging from each of the interviews is not only rich and deep, but comes from an approach which aims to minimize preconceptions and pre-judgment: there is no semi-structured framework in place to steer entrepreneurs to particular conclusions or areas of focus.

Objections may also be raised in the areas of language and the reliability of memory. All interviews were conducted in English, and this was part of the pre-interview briefing and selection process. German interviews were conducted in English, eliminating some of the dangers of cross-translation (Temple 2008), but this still exposes the research to risks that German transcripts vary by the language proficiency of the interviewees. Perhaps this is inevitable, but all German interviewees possessed strong English language skills, with few instances of hesitation to seek the correct English words. Another possible limitation is that the English-speaking requirement limits the number of candidates, imposing a bias on the selection.

However, such interviewees are sufficiently difficult to access, requiring personal introductions, that the value of the finding must be compared with the potential biases in the ‘recruitment’ process.

As discussed in Chapter 4, the reliability of memory in recalling past experiences is also a potential limitation (Draaisma 2006). This may be made worse by the ‘selective recall’ presented by interviews such as B4 and A6, who appear to recall events incorrectly for their own benefit. As outlined in the detailed analysis, some entrepreneurs are strong storytellers, who naturally embellish details in their narrative accounts. Methodologically, perhaps the recollections themselves (incorrect or not) are the focus here: IPA seeks to understand the ‘lived world’ of the subject, which includes how they might (incorrectly) recall and re-tell past memories.

Another possible limitation is the quality of the researcher, conducting doctoral research for the first time. Although this researcher has extensive technology entrepreneurial experience, the skill of the interviewer is critical to the success of such research (Smith, Flowers et al. 2009). To mitigate the risk of such inexperience, this researcher attended all necessary doctoral courses, and moreover applied his career skills from Financial Auditing to document each step of the research. He will make available all working papers to academics seeking to re-apply IPA to the source data. Finally, the Yardley’s framework for limitations in qualitative research introduced in Table 5 (Yardley 2000; Yardley 2008) is re-presented here, with commentary on how this researcher has tried to address such issues.

	Principle	Author's Commentary on Yardley's Validity Criteria.
1	Sensitivity to Context	IPA was chosen specifically to address the sensitivity around entrepreneurs and their failed ventures. The research explores painful and traumatic experiences, and the phenomenological approach offers insight with minimal filtering. The extended, unstructured interview process supports open sharing of sensitive issues.
2	Commitment and Rigour	IPA offers clear guidance on how to plan, gather and analyse data (Eatough and Smith 2008; Smith and Osborn 2008; Smith, Flowers et al. 2009). This thesis has followed such guidance and documented each step in great detail.
3	Transparency and Coherence	Working papers, including transcripts, source audio files and sequential note-taking documents will be available on request to other academics wishing to evaluate how the methodology was applied.
4	Impact and Importance	Failure rates in early-stage technology ventures are high, and failure appears to be a common experience. Societal pressure to encourage entrepreneurship is increasing (Economist 2012). The impact of this thesis involves (1) In-depth insight into the lived world of entrepreneurs through this experience, (2) Focus on a particular industry sector (high-technology), (3) Three-country comparison of entrepreneurial experiences.

Table 16. Updated Commentary on Yardley's Four Criteria for Validity of Qualitative Research (Yardley 2000; Yardley 2008)

Implications for Practitioners and Policy

It is hoped this thesis contributes to knowledge regarding the impact of failure on entrepreneurs: documenting and analyzing their attitudes to failure, how they respond and what they do next.

This contribution adds a comparative study of multiple regions, and also provides focus on a particular industry context (high-technology). It also makes a methodological contribution by extending earlier work (McKenzie and Sud 2008; Cope 2011), stretching the readiness, strengths and limitations of phenomenological approaches with further geographical and industrial scope.

Further research based on an evaluation of this thesis and its methodology might involve the application of this approach to additional regions, particularly in Asian business cultures such as China, India, Korea and Japan. Access to failed entrepreneurs in these regions is anticipated to be even more challenging than in Germany, the UK and Silicon Valley, but given the vibrancy of these economies, further insight into entrepreneurial failure in these countries may be valuable.

Industry practitioners in early-stage entrepreneurship include entrepreneurs themselves, mentors, investors, advisors, incubators and innovation managers. For advisors and mentors of entrepreneurs, this thesis offers a framework for the analysis and understanding of failure, with a number of in-depth examples. This might be used for teaching entrepreneurs and workshops as well as counseling those whose early-stage ventures have recently failed.

Policymakers include politicians, think tanks and administrators who direct tax and financial policy, as well as deploy funds and resources to educate, encourage and incubate entrepreneurship (Economist 2012). In the creation, collapse and re-cycling of firms in the high-technology sector, it is hoped this research offers insight to these policy makers on how failure can be re-interpreted for the benefit of the economy as a whole. Examples of public advocacy of further entrepreneurship can be found in Germany (Hülsbeck and Lehmann 2007), the UK (H.M.Treasury 2011) and USA (Chopra 2012), and all point to the need for economic growth through new entrepreneurs. This might be improved through support for monitoring and mentoring of failed entrepreneurs; faster recovery of people and IP for re-cycling into the economy; case studies for education; and finally through better insight into the impact of public funding, support programmes and their legal or financial context.

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