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A Framework for Entrepreneurial Learning: A Tribute to Jason Cope

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ABSTRACT

Cope’s theory of entrepreneurial learning is explained and the paper shows how it can be applied, to deepen understanding about and practice in, entrepreneurship education. The paper starts by providing a biography of Dr. Jason Cope. The biography explains his academic life and provides a timeline of his publications. The paper then explores his research on entrepreneurial learning and the contributions he made to the subject. This part is split into three components. In the first section Cope’s early work is introduced and his explanation of concepts such as: learning by doing; reflective learning; learning through crises; and, the role of personal exposure in entrepreneurial learning; are explained. In the second part Cope’s publications following his PhD are reviewed and his conceptual framework derived from this research is explained. Here ideas, such as, transformative learning and double loop learning are discussed in terms of their relevance to entrepreneurship. In the third part Cope’s complete entrepreneurial learning theory is explained and the key contributing concepts are described. Here the paper looks at the theory and how Cope applied it to undertake research and subsequently explain how entrepreneurs learn from failure. In the final sections of the paper the implications of his theory to entrepreneurship education are explored. The paper examines entrepreneurship education both for students and for entrepreneurs; showing that the theory has significant implications in both contexts. Finally, it concludes by explaining why Cope’s work has been described here as a theory of entrepreneurial learning.

KEY WORDS

Jason Cope; Entrepreneurial Learning; Entrepreneurship Education; Failure;
1. Introduction

This special issue on entrepreneurship education and regional development was due to be edited by a fourth person; Dr. Jason Cope. On October 31st 2010 Jason died while visiting Florida on an International Fulbright scholarship. His contribution to this special issue can still be found in the selected papers, in the presented themes and in the contributors’ referenced work. It can still be found in our recollections of the conversations we had with him about this project. Consequently, we have included this paper as a tribute to Jason. It will introduce his work, it will explain the significance of the concepts he developed and show how his ideas and empirical research have advanced our understanding of entrepreneurial learning and education. This is no small task. Down (2010) writing an obituary for Jason described his scholarship thus: "...imagine it as the opening of a symphony: quiet and tentative to begin, coherent, gradually building authority, suggesting major themes. We won’t now know how magnificent it would have sounded. What we do know is that his project was an attempt to move beyond checking facts. He was interested in the meaning – the phenomenology – of things: learning, failure, above all entrepreneurship". It will be difficult to capture this symphony and do it justice but this paper is an attempt to highlight and illustrate how the symphony was growing and building; it is an attempt to ensure that somewhere his work is considered as a whole.

The paper will begin by providing a biography of Dr. Jason Cope that will include a timeline, which illustrates when his key work was produced. It will progress to explore and introduce his concepts about entrepreneurial learning. The second part of the paper will explore his research and importantly link this to the theme of this special issue; entrepreneurship education. The final part will conclude and demonstrate the significant contribution he made to the subject of entrepreneurial learning. If you are familiar with Jason’s research we hope you feel that we have summarized his contribution well. If you
are coming across his work for the first time we hope this paper encourages you to take the next step and read his publications in full.

2. Biography and Publications - Jason Cope 1972-2010

Jason started his academic career at Lancaster University Management School in 1991 where he became an undergraduate student on the BBA in Management. While engaged in the degree program he spent his placement year at a growing small business and after graduating from the degree in 1995 he worked as an Account Manager for Xerox UK. He was, however, an academic at heart and was soon returning to Lancaster and working in the Business Development Unit as a project researcher where he undertook research on small firms in the food industry. Soon afterwards he registered for the PhD in Management at Lancaster University and was supervised by Professor Mary Rose and Professor Ged Watts. His PhD thesis was ‘The Entrepreneurial Experience: Towards a Dynamic Learning Perspective of Entrepreneurship’. During this period he wrote and published his first research studies with Watts and Hulme (1998) and completed a paper with Watts (2000) focusing on learning by doing.

He completed his PhD in 2000 and took up his first appointment as a lecturer in the Institute for Entrepreneurship and Enterprise Development at Lancaster University Management School. He stayed at Lancaster until 2008. During the period 2000-2008 he established himself as an outstanding scholar and teacher and developed an international reputation for his research on entrepreneurial learning. His first sole authored papers came in the form of work for the journals of Management Learning (Cope, 2003) and Entrepreneurship Theory and Practice (Cope, 2005a) in which he explored the role of critical reflection and dynamic learning. He also produced a sole authored methodology paper for the International Small Business Journal (Cope, 2005b) and a collaborative paper with Cave and Eccles that extended his interest in business failure (Cope, Cave and Eccles, 2004).
In 2004 having spent several years producing work in top management journals Jason spent a sabbatical in New Zealand at the University of Canterbury Management School. He used the time well to produce two collaborative works with Pittaway on entrepreneurship education and learning (Pittaway and Cope, 2007a, b) and a special issue on social capital for the International Small Business Journal (Cope, Jack and Rose, 2007).

In January 2009 he took the important next step in his academic career and accepted the position of Senior Lecturer and Director of Teaching with the Hunter Centre for Entrepreneurship at the University of Strathclyde. Here he helped redesign the teaching on the undergraduate Business Enterprise programme and continued to produce cutting edge research culminating with his final work that was published by the Journal of Business Venturing (Cope, 2010), which expanded and delved more deeply into entrepreneurial failure. During this period he also completed a paper with Kempster (2010) and a special issue of Action Learning (Thorpe, Cope, Ram and Pedler, 2009).

The culmination of Dr. Jason Cope’s academic life was the awarding of a prestigious International Fulbright Scholarship which allowed him to visit Florida State University. He embarked on this latest adventure in August 2010 and died on October 31st. His final paper was under review at Entrepreneurship and Regional Development and he was working on this special issue. As will be presented next Dr. Jason Cope was truly ‘developing a symphony’, we cannot know where it would have led, but we can celebrate the contributions to understanding that he did make.

3. Entrepreneurial Learning

3.1. Cope’s Conceptual Framework (Stage 1)

Adaptation and the role of adaptive learning in the growth process is the intellectual starting point of Cope’s work (Watts, Cope and Hulme, 1998). In the first study carried out while a project researcher Watts, Cope and Hulme (1998) explored the growth strategies of
small food producers in Cumbria and Lancashire. In this they sought to: "...explore the usefulness of the Greiner life-cycle model (Greiner, 1972) in interpreting the relationship between personal and business experience and learning in a small firm" (Watts et al., 1998, p.101). In particular they were interested in the aspects of Greiner’s model that presents phases of stable expansion followed by periods of ‘crises’ and they sought to understand these ‘crises’ as a form of adaptation and learning. The primary research involved a survey (sample 256 firms with 79 completed responses) and a series of 25 face-to-face interviews. The paper highlights some early roots of Cope’s thinking. The first conceptual argument made of note is a critique of Greiner’s ‘crises’ elucidated in the following point:

"[In the Greiner model crises] are essentially internal... they may be likened to growing pains. However, a business is very much an open system and, in this sense, a basic prerequisite of survival and growth is successful adaptation to the environment... not all ‘crises-inducing’ change is sudden or unexpected" Watts et al., 1998, p. 101.

The argument shows two points that will become important later. First, that crises involve both internal tensions arising from ongoing growth and pressures arising from outside the firm. They argue that an entrepreneur’s degree of external knowledge and ability to adapt place limits on their awareness of their environment and the firm’s consequent ability to adapt. Limitations on knowledge leave room open for learning to be crucial and for instinctual decision-making to be important in entrepreneurial processes (Watts et al., 1998). They point out: "Some of these are clear examples of 'strategy that happened' or 'emergent strategy' rather than the deliberate, logically planned or 'intended' notion of strategy..." (Watts et al., 1998, p. 109). In this sense ‘adaptive learning’ is required if an entrepreneur is to successfully navigate the challenges presented when growing a business. Secondly, that crises themselves may not always be sudden and unexpected but can be drawn out over time and can be anticipated. As explained: "What became strikingly apparent were the frequently occurring accounts of 'chance' incidents causing changes in business direction, not all of which could be reasonably described as crises" (Watts et al., 1998, p. 107). Learning, therefore, in this context implies ‘successful adaptation’ or a
‘survival instinct’ driven by purposive acts over short periods of time that allow for the survival or growth of the firm (Simon, 1956; Watts et al., 1998). The first paper, therefore, begins to raise the prospects for two key entrepreneurial learning concepts that emerge later, **learning by doing** and **learning through crises**.

The next paper by Cope and Watts (2000) begins to put some conceptual ‘flesh on the bones’ of the two ideas first articulated in the Watts et al (1998) paper, as well as, beginning the foundation for other important concepts. Important developments in Cope’s general underpinning theory are also evident. These derive from his PhD research, a wider appreciation of the contributions that management learning might make to the subject area drawn from his Lancaster interactions (Burgoyne and Hodgson, 1983; Reynolds, 1997) and the impact of other researchers who had also become interested in the subject (Deakins and Freel, 1998). Once again the second paper seeks to "...explore the learning process of entrepreneurs in relation to the parallel processes of personal development and business development” (Cope and Watts, 2000, p. 104). It looks at individual learning in the business life cycle through the impact of critical incidents. The paper is based on Cope’s PhD data and "...comprises [of] a set of longitudinal case studies of a sample of six entrepreneurs and their businesses, representing diversity of age, background, prior experience, sector and age of firm... [using] A series of semi-structured interviews” (Cope and Watts, 2000, p. 104).

Conceptually there are some interesting advances from the earlier paper. Learning, for example, is more clearly defined using Huber’s (1991) definition indicating that learning can be a cognitive change that does not necessarily lead to changes in behavior. The study is also informed by the work of Burgoyne and Hodgson (1983) focusing on forms of learning (e.g. different levels; double-loop; and deeper learning) and argues that ‘significant’ learning involves "...the alteration of beliefs, viewpoints and perspectives that shape the individual’s perception of the world” (Cope and Watts, 2000, p. 106). By drawing on the
management learning literature Cope and Watts (2000) make several key conceptual points about entrepreneurial learning. First, they build on the idea of ‘learning by doing’ pointing out that it is a gradual change in a person’s orientation due to a continual flow of information gained via experience (Burgoyne and Hodgson, 1983; Marsick and Watkins, 1990). In this sense they see learning by doing as being changes to background consciousness that occur in a gradual way (Marsick and Watkins, 1990). Secondly, they start to elucidate the importance of ‘reflective learning’, whereby entrepreneurs are “…thinking about the problem or incident but are not ‘in the thick of it’” (Burgoyne and Hodgson, 1983; Cope and Watts, 2000, p. 106). They point out that both forms can occur at the same time and that the ability of entrepreneurs to proactively reflect can make learning more effective (Megginson, 1996). Reflective learning and learning through experience are supportive of each other and significant cognitive change may only occur once an individual has reflected on their experiences (Burgoyne and Hodgson, 1983; Reynolds, 1997). Finally, in the conceptual discussion they build upon the initial ideas about ‘learning through crises’ and the research design uses the critical incident method to gain access to such periods in the six longitudinal cases. Again drawing on the literature related to individual learning they point out that it often considers learning and adaptation to be caused by discontinuities or events (Wolfe and Kolb, 1984). Arguing further that such ‘growing pains’ are illustrated in entrepreneurship life-cycle theories and that periods of discontinuity and crises illustrate times when entrepreneurs need to go beyond learning by doing (West and Wilson, 1995). When testing these ideas out in the field Cope and Watts (2000) come to some key conclusions. The first of which was the nature of the critical events:

“...the term ‘incident’ often tends to trivialize the diversity of critical experiences faced by entrepreneurs, who often endure prolonged, difficult and highly emotional critical periods or episodes... the ‘critical incident’ is a complex phenomenon that does not occur independently of the entrepreneur but in many cases is a change in perception and awareness that stimulates the entrepreneur into action” (Cope and Watts, 2000, p. 112-113).
What they conclude is that there are ‘critical incidents’, discrete events, which occur during prolonged ‘critical episodes’ and these are closely linked. The critical incidents are viewed as ‘eruptions’ that culminate from fundamental unresolved issues (episodes). On the impact that these periods have on learning they concluded, "...critical incidents described here accelerated this process of learning and growing self-awareness and therefore often proved to be seminal moments within the process of change" (Cope and Watts, 2000, p. 113) and "...it becomes evident that they were powerful events in the histories of the businesses and stimulated fundamental and transformational learning for the entrepreneurs concerned” (Cope and Watts, 2000, p. 114). So the events observed were complicated, prolonged and simultaneously transformative for the individuals and the businesses. These are thus powerful periods in terms of learning even when the experience maybe negative for the business and/or the individual at the time. Cope and Watts (2000) also found such events to be emotionally-laden and thus began to articulate what they felt was the important role of ‘personal exposure’ within entrepreneurial learning. They point out, "...the perceived ‘critical incident’ is essentially an emotional event, in that it represents a period of intense feelings, both at the time and during its subsequent reflective interpretation” (Cope and Watts, 2000, p. 114). The heightened sense of emotion experienced seems to be identified here as crucial in some way to learning and this is something Cope takes further in later work. Finally, as well as, raising initial thoughts about the role of emotional exposure they also begin to elude to the potential role of ‘mistakes and failure’ in entrepreneurial learning; explaining that the most powerful learning experiences were gained by entrepreneurs who attributed the incidents to their own mistakes. Both the concepts of emotional exposure and mistakes (or failure) feature more prominently in research following this study. A summary of Cope’s conceptual framework until this point (2000) is highlighted in Figure 1.

**FIGURE 1: COPE’S CONCEPTUAL FRAMEWORK (STAGE 1)**
3.2. **Cope’s Conceptual Framework (Stage 2)**

Cope produced three sole authored papers following the completion of his PhD (Cope, 2003; 2005a, b). The first relevant to entrepreneurial learning was published in the journal Management Learning and it deepened and broadened his thinking about ‘discontinuous events’; ‘higher-level learning’; and, ‘critical reflection’ (Cope, 2003). The second explored more deeply the dynamic nature of entrepreneurial learning (Cope, 2005a) and the third explored his methodology (Cope, 2005b). In the first paper we begin to see a further expansion of his effort to draw on management learning and individual learning literature and also see the broadening milieu of researchers who are focusing on entrepreneurial learning as the subject expands (Reuber and Fischer, 1993; Hines and Thorpe, 1995; Gibb, 1997; Young and Sexton, 1997; Deakins and Freel, 1998; Rae and Carswell, 2000; Sullivan, 2000; Taylor and Thorpe, 2000; Gold, Holman and Thorpe, 2002). The paper draws on the six-longitudinal cases again but now looks more deeply at the
interview data and focuses principally on learning experienced during ‘discontinuities’. Discontinuities are redefined taking into consideration the findings of his previous work (Cope and Watts, 2000).

In the paper Cope makes a number of important contributions. The first is to widen the distinction between two forms of entrepreneurial learning; ‘learning by doing’ and ‘learning through critical episodes or events’. The point made is that while it is widely accepted that entrepreneurs are action-oriented and that learning is inherently experience based “...this notable dimension of entrepreneurial learning reflects the importance of experience as a central consideration of all learning” (Cope, 2003, p. 430). Learning by doing then, as a function of entrepreneurial learning, may not in any way be unique to entrepreneurship. He points to a growing recognition that for researchers to fully understand entrepreneurial learning they must go beyond this to “...explore more deeply how entrepreneurs learn” (Cope, 2003, p. 430). ‘Learning episodes’ where seminal events occur and transform the entrepreneur’s approach to life and work, for Cope, seem to offer more explanatory power leading to forms of learning that are different from those gained through day-to-day experience (Young and Sexton, 1997; Rae and Carswell, 2000).

Concluding the introduction of the paper Cope sets out his focus for understanding learning during these seminal events, crises or discontinuities:

“This more gradual, incremental aspect of entrepreneurial learning aside, there is a pressing need to develop a deeper understanding of the process of learning and the specific forms of learning associated with the management and resolution of more discontinuous events” Cope, 2003, p. 431.

Before exploring how Cope expands his conceptualization of these ‘discontinuous learning events’ the second major contribution he makes is to further expand on the role of ‘personal exposure’ in entrepreneurial learning. Here he points out that the complex dynamic relationship that exists between entrepreneurs and their firms, which he introduced in previous research (Cope and Watts, 2000), leads to a significant ‘investment of self’,
beyond what might happen in other contexts. There are several more nuanced aspects to this than previously, "Many entrepreneurs commit significant personal resources to creating and managing a small venture and in so doing expose both themselves and their families to the considerable financial, emotional and social risks associated with small business ownership" (Cope, 2003, p. 430). In particular the concepts of 'financial exposure', 'emotional exposure' and 'social risk' appear writ large in the underpinning logic of personal exposure and he goes on to explain that the inter-relationship between personal exposure and business performance is intricate. Entrepreneurs face real impacts on their emotional and financial wellbeing that impact on themselves and others when the business goes through periods of discontinuity (Cope, 2003). It is also possible to conclude that the opposite also occurs and that intense personal crises can likewise impact on business performance and lead to learning outcomes that change the relationship between the entrepreneur and his/her business.

In the third contribution of the paper Cope (2003) turns his attention once more to ‘crises’, which in consideration of earlier work, he now calls ‘discontinuities’. Drawing on the management learning literature he argues that there are many examples of research demonstrating that challenges and problems can be a rich source of learning and that such discrete or unusual events can prove transformational for individuals (Daudelin, 1996; Appelbaum and Goransson, 1997; Kleiner and Roth, 1997). There are causes for this more intense learning explained in the paper. ‘Heightened attention’ and awareness occur because the situation is unique or new and ‘experimentation’ is required to address the new issues being faced. These force entrepreneurs, "...to question their taken-for-granted beliefs and assumptions and reframe their understanding of the situation at hand" (Cope, 2003, p. 431). Drawing from Nicolini and Mesnar (1995) Cope describes these events as 'discontinuities' or 'breakdowns' in the flow of organizational functioning and points out that such events appear to stimulate different 'levels' of learning (Fiol and Lyles, 1985). In this
paper he takes this a step further and suggests that "...entrepreneurs can experience distinctive forms of 'higher-level' learning from facing, overcoming and reflecting on significant opportunities and problems during the entrepreneurial process" (Cope, 2003, p. 432). So in this paper Cope is moving beyond simply recognizing that discontinuous events lead to a heightened sense of learning, as identified in previous work, to identifying the nature of the learning that is encountered.

The final contribution of Cope’s (2003) paper is then to explore the nature of the learning that occurred in his field research when the entrepreneurs went through specific discontinuous events and much of the data presented examines these in detail. Before doing so, however, he had to explain and define the somewhat thorny conceptual issue of how to define ‘higher level learning’. Turning to the management learning literature he draws on many different approaches that "...distinguish between more practical, routine, adaptive learning and more fundamental learning that generates new understandings and new cognitive ‘theories of action’ (Cope, 2003, p. 432). While these come in many forms and use different terminology similar dualities exist in many theories; illustrating some distinction between lower-level learning and higher-level learning. Cope (2003) presents these in a table (p. 434) and concludes that, "...although learning levels are often presented in discrete, dichotomous terms, it is important to remember that they are actually parts of a continuum” (Cope, 2003, p. 435). He also points out that there are also different forms of higher level learning that emerge from the discussion of the management learning literature that seem relevant and of these ‘double-loop learning’ and ‘transformative learning’ seem most relevant. Defining these in terms of entrepreneurial learning he states:

"...double-loop learning involves the entrepreneur developing a renewed understanding or redefinition of the organizational processes and strategies that are employed within his or her organization. In contrast, transformative learning has a distinctly personal dimension and has the capacity to stimulate considerable changes in the entrepreneur’s self-understanding” (Cope, 2003, p. 437).
When exploring the data presented his first finding is that it is actually difficult to
distinguish between these two forms of learning in the field because of the richness of the
learning experience during a discontinuous event seems to lead to both personal and
organizational learning. On transformative learning Cope (2003) highlights that in this form
of higher-level learning there is an explicit recognition that learning is triggered by a
‘disorienting dilemma’ or ‘crises’ that are primarily events in the individual’s personal life
(Mezirow, 1991). He argues that the data in the study show:

i) A close inter-relationship between the entrepreneur and the business and as a
consequence organizational discontinuous events have an important role in
stimulating transformative personal learning.

ii) The catalyst for transformative learning though is not always ‘externally
imposed’ but is often largely ‘self-imposed’ and can be the result of
mistakes made by the entrepreneur. Particularly where more serious
mistakes trigger an organizational crisis for the business.

iii) Both double-loop and transformative learning outcomes appear to be
triggered by discontinuous events.

iv) That much of the higher-order learning appeared to have occurred as an
outcome of ‘critical reflection’.

The final point builds on the role of reflection as explained in an earlier paper (Cope
and Watts, 2000) and in a discussion section Cope (2003) is careful to define and explain
what is meant by ‘critical reflection’ and argues that, "...reflection can be critical if it
challenges personal norms, assumptions and taken-for-granted... that could be described,
more specifically, as inward critical self-reflection” (Cope, 2003, p. 444). As he points out in
the paper:

"The terms deep reflection or intense reflection, for example, could quite easily be
substituted to describe the reflective activity of both Andrew and Simon. It is simply
the notion that these individuals engaged in a form of reflection that was
fundamental and deeply challenging and, therefore, significantly different from more routinized or 'simple' reflection” (Cope, 2003, p. 444).

The point, evident in his data, was that the entrepreneurs engaged in a deeply personal form of reflection that allowed them to critically analyze their own perceptions and assumptions and consider how these impacted on the efficacy of their own actions; and thereby on their businesses.

In concluding Cope argues that the field research does provide evidence that non-routine events, such as those defined earlier, do represent a key entrepreneurial learning mechanism that leads to a higher-order form of learning. The evidence leads him to suggest that ‘active encounters’ with others also demonstrate that these events are not entirely isolated (to the individual) and that they involve a social or networked component that involves crucial significant others. He also concludes that ‘personal exposure’ and particularly the emotional aspects of exposure seem to play an important role in such events encouraging self-doubt and critical self-reflection that also seem to be important in encouraging significant higher-order learning. In this sense he closes on arguing for more research on entrepreneurial failure as this presents a beneficial context within which to further explore entrepreneurial learning. Cope’s conceptual framework until this point (2003) is summarized in Figure 2.
3.3. **Cope’s Entrepreneurial Learning Theory**

The second paper during this period focusing specifically on entrepreneurial learning was Cope’s (2005a) paper for Entrepreneurship Theory and Practice. Contextually the paper is set in a period of increasing attention focused on entrepreneurial learning, both in the US and the UK (Minniti and Bygrave, 2001). The paper sets out to draw on this milieu to articulate both a rationale for focusing research on entrepreneurial learning and to build a conceptual framework on which to base study and co-ordinate research. The paper ‘takes stock’ of the subject. It develops a conceptual framework, which we are calling here Cope’s entrepreneurial learning theory, and presents further avenues that research on
entrepreneurial learning can take. In this sense conceptually the paper reflects on prior theory developed by Cope and others, which is discussed previously, and introduces new ideas from other researchers, seeking to build this into a coherent whole. As Cope (2005a) states, "As a literature on learning in entrepreneurship contexts is still emerging, the main thrust of this article is to provide a robust conceptual basis for developing further research on this important subject" (Cope, 2005a, p. 377). Cope sees the conceptual framework as offering three distinctive and interconnected aspects, "...dynamic temporal phases of entrepreneurial learning, interrelated processes of entrepreneurial learning, and overarching characteristics of entrepreneurial learning" (Cope, 2005a, p. 377). There are a number of new concepts presented but this paper, in many ways, is the first that seeks to draw previous concepts into a theory of entrepreneurial learning. Cope (2005a) presents two phases of entrepreneurial learning: ‘learning prior to start-up’ and ‘learning post start-up’ and draws in three new concepts that will be explored shortly, which are ‘entrepreneurial preparedness’, ‘learning history’ and ‘learning task’. When discussing the inter-related process of entrepreneurial learning, which explores ‘how’ entrepreneurs learn Cope (2005a) returns to experiential learning, learning by doing and learning processes like trial and error, problem solving and discovery (Deakins and Freel, 1998). As in previous papers he argues that to understand more deeply how entrepreneurs learn from formative experiences researchers must identify key entrepreneurial learning ‘mechanisms’ and argues that one such mechanism that has been identified is critical learning events (Cope, 2001). Although in this paper this concept is re-emphasized Cope (2005a) also explains much further the ‘affective’ or ‘emotional’ dimension of such events and how this emotional content helps form learning outcomes for entrepreneurs. Included in Cope’s (2005a) ‘processes’ of learning is what he describes as the ‘generative process’ (Gibb 1997) and he presents two forms ‘proactive generative learning’ and ‘reactive generative learning’. This captures the fact that reflections on actions lead to learning and
thus inform future actions (Kolb, 1984). Finally, Cope (2005a) includes in his theory characteristics of entrepreneurial learning where he recognizes that, "...learning is located within certain situations and contexts and that learning is an intrinsically social process". Here he draws on Lave and Wenger (1991, p. 31) to point out that learning is ‘situated’ or is an ‘integral and inseparable aspect of social practice’. Characteristics of learning in the theory become the ‘learning environment’ or the specific context within which the entrepreneur is embedded (Gibb, 1997). Concluding the theory Cope (2005a) points to many social relations and contexts that seem to have a bearing on entrepreneurial learning (e.g. relationship with domestic partners; friendships; and, mentors). He also points again towards the emotional aspects of learning, highlighting that its situated nature can lead to relationship conflict and social conflict that can lead to higher-level forms of entrepreneurial learning.

As well as presenting a comprehensive theory of entrepreneurial learning there are several concepts that are new to his conceptualization of entrepreneurial learning that are drawn from elsewhere and that help form a theory. First, he draws on Reuber and Fischer’s (1999) work to explain that each prospective entrepreneur brings to the start-up process a ‘stock of experience’ or ‘learning history’, which constitutes the individual’s background and history. This accumulation of skills and experience has also been described as entrepreneurial preparedness (Harvey and Evans, 1995). This preparedness includes many components, such as, personal attributes, career and personal life-cycles, as well as, skills goals and motivations (Harvey and Evans, 1995). Cope (2005a) reconceptualizes this somewhat by seeing:

"...entrepreneurial preparedness as a cumulative learning process (that) has strong similarities to the concept of ‘anticipatory socialization’, which is described as the collective prior experiences and learning that prepares an individual for an entrepreneurial career... preparing for entrepreneurship can be an implicit and explicit process that has personal and interactive dimensions, such learning and development occurs throughout an individual’s life rather than concentrated during the immediate start-up phase” (Cope, 2005a, p. 378).
He concludes that because of such entrepreneurial preparedness researchers need to appreciate that the way in which entrepreneurs perceive new situations and learn during entrepreneurship is going to be linked to their prior learning and constantly changing learning history. Knowledge and learning is cumulative, he argues, and it can both enable and restrict future actions (Minniti and Bygrave, 2001). Drawing on thoughts about the nature of reflection Cope (2005a) thus highlights that entrepreneurs need to reflect in four different ways on this ‘stock of experience’: **backward** (in time); **inward** (introspection about self); **outward** (interaction with others); and, **forward** (in terms of visualizing the future).

The second new concept drawn into Cope’s (2005a) thinking from other researchers is recognition of the role of the learning task in entrepreneurial learning (Minniti and Bygrave, 2001). He conceptualizes this thus:

> "In appreciating the past, present, and future all impact on the entrepreneurial learning task, factors such as the environment within which the business operates, the nature of the business and its staff, and its concomitant level of growth will all have a appreciable role to play in defining the learning challenge. A key argument of this article is that it is vital to view each entrepreneur’s learning task as dynamic, contextual and cumulative...” (Cope, 2005a, p. 379).

Such a contextual, dynamic and unique situation for each entrepreneur makes it difficult to identify the specifics of the entrepreneurial learning task. Cope (2005a), however, presents some categories of learning task: **learning about oneself; learning about the business; learning about the environment and entrepreneurial networks; learning about small business management; and learning about the nature and management of relationships** (Cope, 2005a, p. 380).

The final concept that is further developed within the theory of entrepreneurial learning presented is generative learning (Gibb, 1997). He points out, "There is the notion that, through reflection, individuals are not only able to learn from events and experiences,
but that they are also able to 'bring forward’ this learning to new situations and encounters” (Cope, 2005a, p. 386). Generative learning processes, therefore, allow for reflection and for these reflections to be applied to future intentions and further actions. In this sense he sees generative learning as being both retrospective and prospective, in the sense that it draws forward prior experience into new actions. In the paper Cope (2005a) seeks to further conceptualize generative learning in entrepreneurship by illustrating that:

"...the importance of generative learning rests on its ability to enable entrepreneurs to abstract and generalize across contexts, to recognize patterns and build relationships between different situations and events. Generative learning outcomes not only allow for more effective action, but also allow for more effective action in a **broader** range of new situations; thereby creating higher-order skills that are generalisable and lead to greater transfer of learning”. (Cope, 2005a, p. 386).

Cope (2005a) then puts forward two forms of generative learning. Adaptive where, "cumulative learning through experience enables entrepreneurs to develop what could be described as a ‘cognitive store’ of accessible experiential learning, which they are able to reflect upon and subsequently utilize in similar situations...[or] the acquisition of know-how” (Cope, 2005a, p. 386). He points out that this know-how becomes almost ‘gut instinct’ that is bought forward to solve similar situations later (Young and Sexton, 1997; Minniti and Bygrave, 2001). In contrast ‘proactive generative learning', "describes a learning process that enables entrepreneurs to become sensitized to potential critical incidents by becoming attuned to factors and circumstances that may become critical” (Cope, 2005a, p. 386). Which he associates with a 'cognitive early warning system’ that enables the entrepreneur to visualize and anticipate future critical issues or events before they occur.
Overall Cope’s (2005a) paper presents a theory of entrepreneurial learning (see Figure 3) and in concluding he suggests many empirical research opportunities that arise from the theory. His next and final published paper effectively applies this theory within a specific entrepreneurial context that gained his attention as an important episode of entrepreneurial learning; namely business failure (Cope, 2010). The article is focused on an empirical study that he carried out with Cave and Eccles that explores perceptions of failure in the US and the UK (Cope, Cave and Eccles, 2004). The data in the first paper on this subject explored VCs attitudes to failure between the two countries and the key paper, in terms of entrepreneurial learning, explored interview data of eight entrepreneurs in the two countries, using Interpretative Phenomenological Analysis (IPA) and their experience of the failure of their businesses (Cope, 2010). Both papers offer considerable insights on the conceptualization of failure that are not explored here, which should be of particular interest.
To scholars on this subject (Cope et al., 2004; Cope, 2010). Of particular note are his conceptualization of failure itself and the phases of failure (or learning timeframes) that he presents. The Journal of Business Venturing paper (Cope, 2010) is one of the most insightful papers a scholar can read and it is recommended that the article is read in full as it is difficult to do it justice in a review paper such as this.

The initial purpose of the paper is clear, although he does not seem to say so explicitly, Cope is applying his entrepreneurial learning theory (Cope, 2005a) to the context of failure, as he says, “there remains a need to progress discussions by examining specific contexts in which entrepreneurial learning occurs, particularly failure” (Cope, 2010, p. 3). All aspects of the theory presented in the 2005 Entrepreneurship Theory and Practice paper reappear within this paper as the means to explore, understand and interpret the empirical data presented. As one would expect of Cope though this was only the basis from which more concepts are developed and elucidated, which both further enhance the general entrepreneurial learning theory, and present discrete concepts relevant to learning specifically from failure. For example he points out, “…what emerges is a lack of rich substantive evidence to support conceptualizations, particularly within the entrepreneurial context. It appears almost axiomatic that learning occurs in relation to failure, and yet a clear articulation of the specific learning processes and outcomes of venture failure remains elusive” (Cope, 2010, p. 3). In keeping with his previous entrepreneurial learning theory Cope presents the data from the research in temporal phases. He puts forward three temporal phases: ‘aftermath’; ‘recovery’; and, ‘re-emergence’.

In the immediate aftermath Cope (2010) found, “…six distinctive spheres in which failure has a significant influence – financial, emotional, physiological, social, professional and entrepreneurial” (Cope, 2010, p. 7) and he goes into these in some depth based on the data. What he concludes is that the empirical data explored provide confirmation that the affective emotional dimension is ‘writ large’ illustrating the important emotional
commitment an entrepreneur makes when engaging in entrepreneurial acts (Shepherd, 2003; Shepherd et al., 2009). He goes beyond this though to show that the emotional and social costs of failure are inter-related (e.g. high levels of divorce following failed businesses) and that this emotional component is an important defining characteristic of the higher-level learning that can occur as a consequence of failure. For example, he concludes:

"...the findings suggest that the criticality of failure lies in its ability to detach entrepreneurs from their naturalistic community of collaborators. It is therefore unsurprising that the extreme levels of anxiety created by failure are a reflection not only of physical strain but also social isolation that entrepreneurs can experience as they feel unable to confide in others“ (Cope, 2010, p. 9).

"The research reinforces that failure can include a loss of self-esteem, a sudden reduction in social stature and a decline in status in the individual’s own eyes as well as other people’s“ (Cope, 2010, p. 9).

He makes the point then that it becomes important who entrepreneurs turn to in the immediate aftermath of failure, some turn inwards others turn outwards, and it emerges from his research that the social process is important. He argues, "...failure is one of regression and gradual re-emergence, in which entrepreneurs rebuild damage done to relationships. Consequent social affirmation may then support rehabilitation. ...engaging in grief recovery is not only a function of overcoming financial and emotional costs of failure but also the relational costs (Cope, 2010, p. 9). Highlighting, therefore, that how individuals respond in the immediate aftermath of failure can impact on how soon they begin to recover from their feelings of loss (which have financial, emotional, physiological, social, professional and entrepreneurial components). Such ‘distance’ from these feelings, it appears from the study, is required before any learning from failure can truly occur.

The next temporal phase ‘recovery’, "represents a gradual healing process, in which some measure of temporal and psychological distance is required to overcome the very raw and painful emotions of failure“ (Cope, 2010, p.10). Learning in the immediate aftermath of failure does not seem likely as he points out:
"Whilst the participants naturally experienced heterogeneous 'grief recovery times', what emerges from the data is a purposeful and necessary 'stepping back' from the loss of the venture before meaningful reflection and new activity could begin" (Cope, 2010, p. 10)

He points again to the social and relational process as being critical. Recovery is not just about the entrepreneur but his/her wider network. Suggesting that, "the entrepreneur's rehabilitation is a function of observing the recovery of significant others" (Cope, 2010, p. 10) and that, "...there is a complex sense-making process at work in recovering from failure that involves both avoidance and confrontation. The importance of moving on to new activities is also emphasized in order to restore self-confidence, provide renewed focus and enable failure to be put into perspective" (Cope, 2010, p. 11). In Cope’s data this is where learning from failure really begins to occur. He points to several forms. First, he explains the idea of a ‘hiatus’ (or restoration-oriented dynamics) in learning theory and demonstrates that a purposeful break from thinking about failure is important before real sense-making can occur (Mezirow, 1991). Forms of reflection that re-examine presuppositions cannot occur, therefore, until sometime after the immediate event. Secondly, he argues, that once this loss period is past entrepreneurs go through a period of ‘loss orientation’ linked principally to inward critical reflection, which challenges personal assumptions and behaviors and asks probing questions in order to understand why the failure occurred, which can ultimately lead to a reexamination of the failure and a better self-concept which can affect future actions (Mezirow, 1991). Thirdly, he argues that entrepreneurs then engage in ‘reflective action’ that is predicated on insights from looking back on the failure which lead to new actions and decisions which enable the entrepreneur to ‘move forward’. Cope (2010) concludes that:

"...recovery from failure appears to be composed of three interconnected learning components: 1) an initial hiatus, where the entrepreneur psychologically removes himself or herself from the failure in order to heal; 2) critical reflection, where the entrepreneur engages in a determined and mindful attempt to make sense of failure; and 3) reflective action, where the entrepreneur attempts to move on from the failure and pursue other opportunities. These components are interrelated because the hiatus allows the entrepreneur the emotional space and energy to then critically
evaluate the failure, whilst reflective action is enabled by the initial healing and the subsequent learning provided through reflection”. (Cope, 2010, p. 12).

Turning next to the reemergence phase of learning from failure Cope (2010) focuses on four broad themes that are applied from his entrepreneurial learning theory (Cope, 2005a); learning about oneself; the venture (and its demise); the relationships and the management of businesses (Cope, 2010). Here he illustrates that learning about oneself during venture failure seemed to be a central feature and he explains that failure is a heighten form of ‘trial and error’ learning (Gibb, 1997). The learning experienced is powerful because it has a personal dimension that seems to be transformative in nature. For example he argues that:

“...some forms of learning can become a significant force in our lives, giving rise to strong emotions and entering into our sense of identity. The findings illustrate that the participants have learned such essential lessons about their strengths and weaknesses, skills and abilities, and the efficacy of their approach to entrepreneurship; ultimately articulating a mastery reaction to failure”. (Cope, 2010, p. 14).

In following this point Cope also argues that this learning spills over into learning about the business and reflection on the failure forces a reassessment of the entrepreneur’s underlying assumptions that guided their strategic behavior. There is a compelling argument here about the role of failure impacting on higher-order learning (specifically double-loop learning) that enable entrepreneurs who have experienced failure to develop new frames of reference that enable them to see fundamentally different ways of managing future ventures. When learning through relationships, Cope (2010) points towards, these transformative frames of reference becoming a means to reconsider how an individual manages relationships and interacts with others by, for example, forcing a reassessment of leadership skills or “social-theories-for-action” (Cope, 2010, p. 14). Finally, Cope points out that failure can lead to high probabilities of success later (Saravathy and Menon, 2002) as some entrepreneurs gain encouragement and become better equipped to manage
businesses. In concluding the paper Cope (2010) makes a key point about the research conducted and what it demonstrates about failure:

"I argue that failure can constrain an entrepreneur’s future behaviour quite dramatically, as the financial impact alone can force people back into paid employment or hamper their ability to start a another venture. Far from constraining future actions failure can, at the same time, foster emancipatory learning outcomes, thereby representing an invaluable addition to the entrepreneur’s ‘stock of experience’. Such generalisable outcomes can substantially improve levels of ‘entrepreneurial preparedness’ for subsequent entrepreneurial activity” Cope, 2010, p. 15.

The paper, therefore, shows how valuable a learning experience failure can be for entrepreneurship in terms of experience and how that may impact future entrepreneurial success. Cope (2010) concludes that, "…failure warrants a much more prominent position in discussions of entrepreneurship at academic, policy-maker and adviser levels” (Cope, 2010, p. 17). What the paper also does, however, is demonstrate how valuable Cope’s entrepreneurial learning theory (Cope, 2005a) is when applied to a specific context where learning occurs. It is quite evident from this application to failure that Cope’s learning theory could be applied in other contexts of entrepreneurship and perhaps in other comparable contexts outside of the subject. Figure 3 presents schematically the final theory and Cope’s (2005a) paper would be considered the best source for his more detailed explanation about it. In the next part of the paper we explore the implications of this entrepreneurial learning theory for entrepreneurship education.

4. Implications for Entrepreneurship Education

Cope’s work as summarized here has made a significant contribution to helping researchers understand how entrepreneurs learn, particularly with regard to contexts where they face crises or venture failure. In order for his theory to go beyond the research domain and impact educational practice it is necessary to consider how this theory of entrepreneurial learning might impact on entrepreneurship education. Cope himself began
to explore the implications here and working with Pittaway published two papers on the subject (Pittaway and Cope, 2007a, 2007b). The implications for entrepreneurship education though need to be considered in two forms. In the first part of this section we explore the implications for educational practice in higher education and in the second part we explore the implications for programs targeted at entrepreneurs. The ramifications of the theory in both areas are far-reaching and, therefore, we will restrict ourselves to an overview of the issues. We hope that more detailed research will follow and build on the value of this theory within the educational domain.

4.1. Entrepreneurship Education in Colleges and Universities

There are many concepts in Cope’s entrepreneurial learning theory that have validity in the educational context. The theory throws forward many questions, such as:

i) To what extent does current pedagogy in entrepreneurship education emphasize the way entrepreneurs learn?

ii) What techniques might be used to enable students to understand and appreciate the nature of the entrepreneurial life as exposed via this theory?

iii) How do you simulate and enable students to learn in similar ways to that articulated here?

iv) If you were to develop appropriate techniques how would you assess such learning?

v) How would these more innovative forms be received and treated in educational institutions?

These are just a sample of the many questions that arise. Some of the issues though have been considered (Pittaway and Cope, 2007a, 2007b; Pittaway et al., 2011). Pittaway and Cope (2007a) concluded, from Cope’s first stage conceptual framework (see Figure 1), that educational programs needed to embed learning by doing, reflection and learning through
crises into their design. Action or learning from doing, "...can be conceptualized in three parts: 'the act of doing', 'the experience gained in the doing' and the 'learning accumulated from the experience" (Pittaway et al., 2011, p. 306). Traditional educational practice does not inherently embed such ‘action-based’ learning into its practice and this learning theory would suggest that such forms of learning are essential and thus relevant to entrepreneurship education. Pittaway and Cope (2007a) make this point when exploring how to simulate entrepreneurial learning:

"The entrepreneurship literature highlights the role of action-orientation and experientially based learning. Creating a simulated context for student learning, therefore, requires a project-based activity that is hands-on and experiential, requiring proactive behaviour. A student simulation needs to enable a context whereby students do something entrepreneurial and in doing so learn experientially. It is not simply good enough to do, however; students must also reflect on their action in order to learn" (Cope and Pittaway, 2007a).

As the point highlights entrepreneurial action on its own will not be sufficient to enable effective education. Action must also be followed by reflection and this reflection itself should be sophisticated encouraging the four forms identified (inward, outward, backwards and forwards). The second component for simulating entrepreneurial learning is ‘learning through crises’. Several papers exploring this concept in entrepreneurship education (Pittaway and Cope 2007a; Pittaway et al., 2011) have demonstrated that this is rather difficult to simulate in an educational context. Students invariably will not have the same degree of emotional and financial exposure as an entrepreneur running their business and thus the affective impact of learning is inherently lower and, therefore, the transformative potential of failure is more difficult to tap. Making mistakes and failing outright though are major components of entrepreneurial learning and it seems essential that these aspects of learning are somehow built into educational designs. It seems more relevant today as educational practice has become more accustomed to ensuring all students do well; as opposed to recognizing that failure and mistakes are a fact of life and an important
component of learning. Finally, Pittaway and Cope (2007a) also argue for the creation of ‘personal or emotional exposure’ in educational designs pointing out:

"It requires the creation of an uncertain and ambiguous context encouraging students to step outside [of] taken-for-granted assumptions. Uncertainty in an educational programme replicates the circumstances in which an entrepreneur founds a business because starting a venture is an uncertain endeavour. Adding ambiguity also heightens emotional exposure, which is inherent in entrepreneurial learning...“ (Pittaway and Cope, 2007a, p. 213).

Taking forward understanding of Cope’s first stage conceptual framework and applying it to entrepreneurship education, therefore, can lead to significant innovation in educational practice. For example, there must be ‘entrepreneurial actions’, ‘sophisticated reflection’ on these actions, the opportunity to ‘learn from mistakes’ and ‘uncertainty’ and ‘ambiguity’ built into educational design so students have a level of ‘personal exposure’.

Cope’s second stage conceptual framework (see Figure 2) adds new issues for entrepreneurship educators to consider. The first is the situated nature of learning demonstrated in much of Cope’s later work. This social dimension of learning has been widely highlighted (Gibb 1997; Hines and Thorpe, 1995; Taylor and Thorpe, 2004) and in Cope’s work relationships with others, social conflict and social risk are all essential characteristics. These interactions count, they impact on the context of learning and what entrepreneurs gain from their experiences. When expanded to entrepreneurship education it is evident that the relevant ‘social communities of practice’ need to be engaged when educating students (Rae, 2002; Hamilton, 2004; Cope, 2005a). This is highlighted in the Pittaway and Cope (2007a) paper, "...learners should interact with the target community and appreciate authentic work practices. In this way students ‘pick-up’ invaluable ‘know-how’ – not just information but also manner and technique – from being on the periphery of competent practitioners” (Pittaway and Cope, 2007a, p. 216). Situated learning, therefore, requires the involvement of the ‘community of practice’, of practicing entrepreneurs in the classroom, and requires learning designs that simulate the social component of learning.
The situated nature of learning and the ‘communities of practice’ component throw forward many forms of valuable pedagogy for entrepreneurship educators to consider, including: entrepreneurial guest lectures; entrepreneurs in residence; small business consultancy projects; and, team-based project work (Pittaway and Cope, 2007b). Any method that draws students closer to the social practice of ‘being an entrepreneur’ are thus considered to offer educational benefits.

The final additional advance in Cope’s second stage conceptual framework is the broadening of the relevant learning characteristics. Here personal exposure includes three forms: emotional exposure; financial exposure; and, social risk. While simulating emotional exposure and financial exposure have been discussed in previous studies (Pittaway and Cope, 2007a; Pittaway et al., 2011) social risk has not. While entrepreneurs clearly experience financial risks they also expose themselves to social risks. Social risk from damage to relationships with significant others; the risk of lost personal credibility; and, the risk of isolation from personal business networks are just a few. In terms of entrepreneurship education this raises the question; how do you raise potential social risk in an acceptable way when seeking to simulate entrepreneurial learning? Or, indeed should you seek to do so? Clearly, long-term group work, larger groups (12-15 students) and peer assessment draw in some social risk for students but would this be enough to simulate entrepreneurial learning? Other characteristics that seem important are the role of experimentation (trial and error learning) and heightened attention/awareness when mistakes are made. Both require that students in entrepreneurship are given a chance to practice running businesses (or other relevant real-life projects) and have a chance to make mistakes while doing so. Cope’s second stage conceptual framework adds to the first by encouraging ‘socially situated learning’, by asking for this social practice to have some ‘social risk’ and by encouraging ‘practical experimentation’ where ‘failure and/or mistakes’ are possible.
In the final entrepreneurial learning theory (see Figure 3) developed by Cope (2005a) there are a host of new issues yet to be considered by entrepreneurship educators. First, the dynamic temporal phases presented asks serious questions about how courses in entrepreneurship education are organized. Is it, for example, correct to organize courses around content themes (e.g. entrepreneurship; small business; venture capital; family business)? Or, should programs be organized around temporal phases that have unique and significantly different dynamics (e.g. pre-start-up; post-start-up; management of small business; managing a growing business; taking on venture finance)? Cope’s theory also points to significant diversity in an individual’s ‘stock of learning experience’ and consequent ‘entrepreneurial preparedness’ implying that different students come to the same courses with different capabilities; should educators cater for these differences and how should they do so? In addition the theory adds new forms of learning task, which can be considered the outcomes of learning. These raise questions about how educators encourage different forms of learning: about oneself; about specific ventures experienced; about relationships and networks; and, about venture creation and management. Each of these different learning outcomes needs to be assessed within educational designs. Overall the theory of entrepreneurial learning developed by Cope (2005a) puts forward some compelling issues for entrepreneurship educators; many of which have not yet been discussed nor resolved. Next we explore the implications of this theory for the training and education of entrepreneurs.

4.2. Education and Training for Entrepreneurs

In a recent paper on action learning Pittaway, Missing, Hudson and Maragh (2009) explored the role of entrepreneurial learning in education for entrepreneurs. Here they applied much of Cope’s (2005a) entrepreneurial learning theory to consider training programs for entrepreneurs. There are a number of reasons why the theory was considered
valuable, for example, entrepreneurship programs have experienced a number of problems that could be addressed by applying the theory to new educational designs; these problems include the:

i) **Problem of engagement**: Programs, often government backed, designed to support learning for entrepreneurs have failed to gain sufficient uptake because they fail to engage entrepreneurs in the way they wish to learn (Stanworth and Gray, 1991; Storey, 1994; Stewart and Beaver, 2004).

ii) **Problem of context**: Management of small businesses varies between many different types, forms and industries. Most provision of training fails to fulfill this diversity of need (Thomson et al., 1997; Devins and Gold, 2000).

iii) **Problem of value**: Entrepreneurs find it difficult to see how training programs will support their business with genuinely useful business outcomes (Gibb 1997; Thomson et al., 1997).

These challenges, it is argued, show that current provision has not fully considered how entrepreneurs learn and consequently programs are often out of sync with what entrepreneurs want. As a coherent theory of entrepreneurial learning Cope’s (2005a; 2010) work can be instructive and used to design programs more effectively. The implications from the theory abound. First, the concepts of ‘stock of experience’ and ‘entrepreneurial preparedness’ illustrate that entrepreneurs have existing knowledge that they bring to any educational context and thus entrepreneurs require, "learning designs that employ the 'stock of entrepreneurial experience’ that each participant has and allow participants time to reflect in a variety of ways on experienced gained" (Pittaway et al. 2009, p. 267). Secondly, reflection on this experience and the process of sharing it with others become important in encouraging learning loops; bringing forward experience in the way articulated...
by Cope (Mezirow, 1990). The importance of ‘critical reflection’, the different forms of ‘reflection’, the role of the entrepreneur’s ‘stock of experience’ and the ‘situated nature of learning’ are all acknowledged as encouraging generative learning and, it is argued, that these principles are needed for educational designs to work (Gibb, 1997; Cope 2005a; Pittaway et al., 2009). Thirdly, the entrepreneurial learning ‘task’ is acknowledged in Cope’s theory to be context specific and illustrating that learning designs would need to, "allow participants to engage in exploring problems that are specific to their particular business and industry" (Pittaway et al. 2009, p. 268). Other concepts in the theory, such as, ‘learning by doing’ require learning designs that involve ‘actions’, ‘experimentation’ and ‘experience’. The ‘emotional’ character of entrepreneurial learning and the ‘social and relational risk’ require learning designs that engage social networks in the learning process. And ‘situated learning’ shows that learning through ‘networks’ is critical and would require trust, respect and shared experience to be generated during a program (Sullivan, 2000).

What these issues highlight is that Cope’s theory has significant ramifications for the way in which educators design training and development programs for entrepreneurs, as well as, for students. Programs for entrepreneurs may need to become more peer-to-peer orientated and that they may need stronger connections to the entrepreneur’s ‘lived experience’ and will need to draw on others who have credibility in the entrepreneurial community of practice. These and many other implications for entrepreneurship education are evident from this review. In the final part of the paper we conclude by explaining why we describe Cope’s contribution as a ‘theory’ of entrepreneurial learning.

5. Conclusions

At the outset of this paper Down (2010) described Cope’s work as the "opening of symphony", a symphony that was not yet quite complete. Undoubtedly, Cope had much left to give to the academic community. Indeed, he was adding to his theory and was
developing a concept of ‘focal commitment’ in an unpublished manuscript for this journal (Cope, unpublished). What this review has shown though is that perhaps he was closing in on the completion of at least one symphony and had yet to start the next. Cope’s theory of entrepreneurial learning is that symphony. In academia the use of the term ‘theory’ has to be carefully applied. It must be applied to a combined set of concepts that describe and explain a phenomenon and that may be transferable to other phenomena and used in range of contexts helping to explain social reality. We contend that Cope’s work is a theory; a holistic and cogent theory of entrepreneurial learning. His theory of entrepreneurial learning draws on many concepts about learning and, in our view; he draws these together comprehensively for the first time showing how entrepreneurs learn. The theory, as described, can be applied in multiple contexts. It can be applied to explain three temporal phases of failure (Cope, 2010) and two temporal phases of start-up (Cope, 2005a). It can be applied to explore how entrepreneurship education can be developed (Pittaway and Cope, 2005a) and assist thinking about educational designs for entrepreneurs (Pittaway et al. 2009). The theory describes an aspect of social reality, entrepreneurial learning, and sheds new light on it. As Hamilton concluded in her eulogy, with which this paper concurs, "Dr. Jason Cope, through work that he cared about enormously leaves a powerful legacy, a contribution to entrepreneurship that is held in the highest esteem and that will live on through future generations of students and scholars".

References


Cope (unpublished), Conceptualising entrepreneurial development across the life course: introducing the concept of focal commitment.


FIGURE 1: COPE’S CONCEPTUAL FRAMEWORK (STAGE 1)

Forms of learning

Learning by doing

Reflective learning

Learning through crises

Characteristics of learning

Personal exposure

Mistakes and failure
FIGURE 2: COPE’S CONCEPTUAL FRAMEWORK (STAGE 2)

- **Forms of learning**
  - Learning by doing
  - Reflective learning
  - Situated learning
  - Learning through crises

- **Higher forms of learning**
  - Self-imposed
  - Externally imposed
  - Transformative learning
  - Double loop learning

- **Characteristics of learning**
  - Personal exposure
  - Emotional exposure
  - Financial exposure
  - Social risk
  - Mistakes and failure
  - Experimentation
  - Heightened attention

Critical reflection connects the forms of learning to the higher forms of learning.
FIGURE 3: COPE’S ENTREPRENEURIAL LEARNING THEORY

Dynamic temporal phases (entrepreneurship)
- Learning prior to start-up
- Learning post-start-up

Dynamic temporal phases (failure)
- Aftermath
- Recovery
- Re-emergence

Entrepreneurial Preparedness

Inter-related processes
- Forms of learning
  - Learning by doing
  - Reflective learning
- Higher forms
  - Self-imposed transformative learning
  - Double loop learning
  - External transformative learning
- Situated learning
  - Proactive generative learning
- Learning through crises
  - Reactive generative learning
- Stock of experience
  - Entrepreneurial Preparedness

Characteristics of learning
- Trial and error
- Experimentation
- Social risk

Learning tasks
- Learning about oneself
- Learning about the venture
- Learning about relationships
- Learning about venture creation/management

Forms of learning
- Reflective learning
- Learning by doing

Learning tasks
- Proactive generative learning
- Reactive generative learning
- External transformative learning
- Double loop learning
- Self-imposed transformative learning
- Trial and error

Characteristics of learning
- Emotional exposure
- Financial exposure
- Heightened attention
- Relationship conflict
- Social conflict
- Stock of experience

Critical Reflection
- Inward
- Outward
- Forward
- Backward