

Refocusing – building a future for entrepreneurial education and learning

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Abstract: *The field of entrepreneurship has struggled with fundamental questions concerning the subject's nature and purpose. To whom and to what means are educational and training agendas ultimately directed? Such questions have become of central importance to policy makers, practitioners and academics alike. There are suggestions that university business schools should engage more critically with the lived experiences of practising entrepreneurs through alternative pedagogical approaches and methods, seeking to account for and highlighting the social, political and moral aspects of entrepreneurial practice. In the UK, where funding in higher education has become increasingly dependent on student fees, there are renewed pressures to educate students for entrepreneurial practice as opposed to educating them about the nature and effects of entrepreneurship. Government and EU policies are calling on business schools to develop and enhance entrepreneurial growth and skill sets, to make their education and training programmes more proactive in providing innovative educational practices which help and facilitate life experiences and experiential learning. This paper makes the case for critical frameworks to be applied so that complex social processes become a source of learning for educators and entrepreneurs and so that innovative pedagogical approaches can be developed in terms both of context (curriculum design) and process (delivery methods).*

Keywords: *entrepreneurship education; reflexivity; relational learning; experiential learning*

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Entrepreneurial education is of critical economic importance to growth in both developing and developed countries, (Millman *et al.*, 2008; Matlay, 2009). As a result universities have been challenged to deliver inspiring and enriched entrepreneurial programmes, instilling in students the necessary skill sets and abilities required to succeed in uncertain and risky business environments (Bumpus and Burton, 2008; Tan and Ng,

2006). Entrepreneurial education as a field of inquiry is one of the most rapidly growing areas of research, and is viewed as the engine for economic growth in the UK (Matlay, 2009). Unfortunately many of the current entrepreneurial programmes in the UK focus on teaching entrepreneurship through traditional formats such as lectures, exams and case studies, adopting a 'teach about' approach. There is a widespread

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consensus that traditional pedagogical 'instructional methods' alone are insufficient to develop entrepreneurs adequately in order to deal with the complexities of creating and running innovative business opportunities, (Honig, 2004). As a consequence there is a growing need to cultivate innovative ways of thinking and new modes of pedagogy to enhance and develop fully approaches to entrepreneurial education and learning (Gibb, 2002; Trehan and Rigg, 2007).

The ability to learn through gaining and applying new knowledge is especially important with regard enhancing entrepreneurial performance (Jones *et al*, 2010). Business schools in higher education institutions (HEIs) have had an increasing effect on the dissemination of business knowledge to the entrepreneur (Gibb, 2009). The institutionalized nature of business schools requires entrepreneurship to be taught in a certain manner, rendering it a marginalized and isolated subject on the business school curriculum (Pittaway and Cope, 2007b; Gibb, 2009). For many years functional orientated pedagogy has been unquestioned in its application. Business schools have been criticized for their use of pedagogical approaches which have neglected or even dispelled the notion of experiential learning, 'learning by doing', as a basis for practice, and have further neglected the associated inductive ontological based views to understanding the framing of real world 'live' concepts and problems, (Pfeffer and Fong 2002). The end result is the development of an 'entrepreneur' with no supporting analytical framework for understanding and appreciating real entrepreneurship based issues, treating the process of entrepreneurship not as an art or craft that is deeply rooted in the practice of everyday life, but something that is functional (Mintzberg, 2004). Educational programmes based on this epistemological perspective tend to leave participants with an abstract and unconnected set of knowledge and skills which at times has very little relevance to the actual complex practice of being an entrepreneur (Zhang and Hamilton 2010; Cope 2005a; Corbett 2005b; Politis 2005).

Entrepreneurship education and institutionalism

What pedagogical values should a business school stand for? Such a question is extremely important to large numbers of entrepreneurs and related students currently in, and about to enter, university. Large numbers of undergraduates and postgraduates, full and part-time, home and international students, will pass through and be influenced by business schools and their pedagogical approaches to the practice of entrepreneurial development. So how should HEI Business Schools

educate and prepare students for the complex world of business?

This question is not unique to the entrepreneurial field. For some time, theoretical and methodological heterogeneity, pedagogical fragmentation and segregation have been topics of vigorous debate for scholars working in the field. There is a strong belief that entrepreneurship is most suitably taught and delivered outside of business schools. How HEIs are currently delivering entrepreneurial programmes is affecting entrepreneurial growth and coming under increasing pressure, especially when government sectors are required to report on the investment in policies and expenditure to support these programmes (Thorpe *et al*, 2008; Clarke, *et al*, 2006; Pittaway and Cope 2007a; Taylor and Thorpe 2004). The demand for business schools to rethink their pedagogical approach to entrepreneurial education requires a determined move away from the rational methods of business education to innovative methods which seek out and facilitate experiential learning (Cope 2005a; Hamilton 2005; Pittaway and Cope 2007b; Hamilton 2011). One particular matter of concern relates to work by Hindle (2007) who refers to entrepreneurial development and education as a field of study that lacks legitimacy as a source of true value in the context of the community that is higher education. At present scholars and researchers in the field are currently challenging one another to question what is the most effective approach to educating the entrepreneur. One of the main challenges in discussing this area is the lack of any clear and unequivocal definition of the term entrepreneurship. Numerous authors have argued that the idea of identifying and acting upon opportunities represents the dominant view of what entrepreneurship is. Shane (2003, p4) defines entrepreneurship as entailing practices that involve the identification and development of 'new goods, services, ways of organising, market processes and raw materials through organising efforts that previously had not existed' (Corbett, 2005b; Rae, 2006). Gartner (1985) and others suggested that there was no accepted definition of the term 'entrepreneur'. This argument is further supported by Henry *et al* (2005, p 98) who suggest that literature on entrepreneurship abounds 'with theories and discussions related to the issue of what or who is an entrepreneur'. Matlay (2005) also argues, through his earlier work with Matlay and Storey (2003), that entrepreneurs are increasingly exposed to a combination of 'push' and 'pull' strategies that send the individual down the entrepreneurial path.^{1,2} In other words, entrepreneurship and the characteristics of the entrepreneur are shaped through experience over time as opposed to such skills being present from birth. With this in mind, the methods

by which entrepreneurs learn and how they are developed are equally subjective. Lazear (2004, p 649) suggests that an entrepreneur is a 'Jack of all trades' who achieves competence in many skills, which Lazear argues contrasts with a specialist having a particular skill or in a particular trade who excels within a much smaller and closely related number of single skill sets. Lazear (2004, p 676) goes further, to define entrepreneurs as individuals who are engaged in the conception and formation of business ideas. Matlay (2005, p 628) argues that an entrepreneur is often regarded as 'individual who seeks business opportunities and takes advantage of economic disequilibrium to pursue personal gain'. Matlay and Westhead (2005, p 630) argue that 'Entrepreneurship can take a variety of forms – in new or established firms of all sizes (micro, small, medium and large businesses), as self-employment or as membership within virtual teams of e-entrepreneurs'. The educational challenge from this is to focus upon the learning opportunities and methods which allow the entrepreneur to become 'empowered to do' and how such thinking behaviours can be supported and facilitated by the education process. As previously suggested much entrepreneurial education is delivered in the traditional rationalist mode, and provides no insight into the uncertainty and complexity of the real world in terms of how the entrepreneur copes and deals with such problems (Hannon, 2006). Further to this it can also be suggested that traditional methods fail to provide real insight into the 'entrepreneurial way' of learning.

The historical preoccupation with an individualistic approach to entrepreneurial education has continued to marginalize and devalue the broader social context in which the entrepreneur functions (Goss, 2005). Such a rationalistic approach has resulted in a bias against a focus on the meaning entrepreneurs make of themselves and their social worlds, or learning about the knowledge they possess from a careful study of their practice. This has met with steady criticisms, the thrust of which is that what is being produced as a result of such educational programs are entrepreneurs who are overly analytical, narrow and focused on the short-term, technically deconstructed and uninterested in methods of reflection as a means of understanding. Entrepreneurs need to become aware of and develop their cognitive skills to help them to make sense of their actions or practices (Trehan and Rigg, 2011). This creates a real-time learning process by permitting, supporting and encouraging the entrepreneurs to explore their judgements and critique their means of inquiry, calling into question the knowledge, images and assumptions that underpin their actions, and the stories which relate to their experiences of themselves and others (Anderson

and Warren, 2011). As a result the conceptual diversity of entrepreneurial education and development has resulted in a lack of clarity in the integration with purposeful philosophical underpinnings, which has led to confused and mixed purposes. The current demand to develop proficient entrepreneurs requires methods for enhancing and stimulating the learning experiences of the entrepreneur which enhance aspirations, critical thinking skills, capabilities and behaviour. These methods are more likely than conventional programmes to involve students and tutors in complex social and political processes.

This paper seeks to raise points of debate about some key, fundamental questions which need to be addressed with regard to the relevance of current pedagogical approaches to the development of the entrepreneurial education and the relational learning experience. For example, the current offering raises these questions, amongst others.

- (1) How relevant is the current pedagogical offering with regards to achieving desirable practising entrepreneurs and developing future graduates?
- (2) How do curricula design and development processes enhance the 'real life' learning experience of students?
- (3) What foundations underpin the design and delivery process of entrepreneurship education/training?
- (4) What evidence is there that supports the utility of the current provision; and what are the arguments against, and why?
- (5) What is the alternative role in the development of practicing entrepreneurs?

Such questions represent a number of challenges to the current traditional methods of entrepreneurship education adopted by university business schools, ranging from deeply rooted philosophical debates and beliefs about the nature of entrepreneurship in higher education to the definitional and conceptual contradictions to the notions of what entrepreneurship practice is, and the pragmatic aspect of educational pedagogy. The questions above are designed to focus attention on the methods which enable a genuine insight into the natural practices of what it means to be a practising entrepreneur to be obtained, where experience and learning are gained through the natural process of social enactment (Antonacopoulou, 2007; 2008) The outcome, in terms of an educational agenda, involves challenging the 'self-conceptions' of what it means to be an 'entrepreneur', inviting openness to alternative meanings. This perspective represents a movement away from the pre-conceptualizations of rationality offered through current HEI institutionalism to a method that embraces introspection, or critical reflection, as a

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means of creating learning practices that enable and facilitate the exploration of alternative spaces of possible actions (Goodlad, 1992; Brookfield and Preskill, 1999; Sarasin, 1999). With such alternatives entrepreneurs can begin to understand how they and others select fragments of knowledge from learning experiences and then draw almost immediate conclusions from these fragments without understanding their embedded assumptions or attributions.

Academic pedagogies based on logic do not always help us make sense of experience: rather, entrepreneurs tend to make sense as they interact in the moment and with the social tensions (emotion, power or politics) which often trigger new methods of relating and engaging. The question then is about how educators can incorporate these into a learning process. It is of huge importance for educators to understand the need for a strong philosophical framework which would underpin a pedagogical approach and enable the development of a greater understanding in terms of how and why entrepreneurs behave and practice in the manner they do (Bechard and Gregoire, 2005). In order to have an effect on entrepreneurial education, the focus needs to be on helping entrepreneurs to develop critical reflective practice from their experiences as a means of helping to bridge the gap between theory and practice, by arguing that in order to become entrepreneurial one must acknowledge and embrace the chaotic nature of practice (Drakopoulou Dodd and Anderson, 2007). An essential step in developing such an approach is the abandonment of current business school pedagogies and the resultant knowledge they propagate, in favour of embracing and cultivating a critical stance towards practice. While the concept of learning through experience is certainly valid and opens up conventional forms of inquiry, the reality is that when conversing with entrepreneurs they rarely talk critically about their practice; rather, they speak instead in quite practical terms – about what they did, what they said, how they felt, and so on.

So what do we do?

The present paper draws on postmodern debate to raise critical questions about pedagogical methods currently used and the effects they are having on entrepreneurial education and training (French and Grey, 1996; Winch and Gingell, 2004; Bechard and Gregoire, 2005). This postmodern debate has raised questions about established practices and narratives embodied in rational epistemological suppositions: current educational practice seeks to control the entrepreneur's perception of social reality. The authors (*ibid*, 1996, 2004, 2005) position learning as an enacted practice, in that learning is a process of knowing – a means of accounting for and

shaping the entrepreneur's experiences revealing their tacit and embodied knowledge. For many years now entrepreneurial education has continued to overlook the role of practice as an epistemological means of learning and how practice can contribute to entrepreneurial development: this is distinctly different from traditional pedagogical approaches (Lewis, 2011). What is ultimately required is a synthesis of theory and practice if we are to develop thoughtful entrepreneurial practitioners. This present paper adopts conceptual and practical approaches from the social constructionist orientation, in order to appreciate and understand both the social structures and processes that are embedded in the entrepreneur's practice. In elucidating this argument one can draw on the combination of conceptual notions of social learning, practice and reflexivity as a method for reshaping entrepreneurial pedagogy, (Higgins *et al*, 2013). A reflexive pedagogy focuses on the question of how the idea that learning is an enacted product of experience can be conveyed, where educators and entrepreneurs are co-constructors of the learning experience. This involves concentrating on the details of teaching and learning, because it is interactions and conversations with others having different perspectives and ideas that can cause their practices to be questioned, through exploring alternative ways of acting.

From this perspective everyday conversations and interactions are critically important with regard to how an entrepreneur's practice is influenced. This is not simply a question of introducing or thinking about new teaching methods; rather, it requires a critique of the very idea of learning, identity and educator-practitioner relations, (Down, 2006). This view changes the perception of the educator's role and level of involvement, from that of a transmitter and disseminator of knowledge to that of a facilitator of learning (Carey and Matlay, 2011; Chapman *et al*, 2011). Such a pedagogy focuses on the exposure of differences between the individual entrepreneurs' espoused perceptions of theories and actual practice; it seeks to examine the politically defensive routines used by entrepreneurs in order to be rational and exercise control over others. In this way it allows for the exploration of hidden forces of resistance and conflict that are embedded in social discourse, by exploring and addressing the following.

- (1) The outcome of this position, in terms of an educational agenda involves challenging the 'self-conceptions' of what it means to be a 'entrepreneur', inviting openness to alternative meanings as a principal point of discussion.
- (2) This perspective representing a movement away from the preconceptions of rationality offered

through current HEI institutionalism, to a method that embraces introspection or critical reflexivity as a means of enabling and facilitating the exploration of alternatives for learning and possible actions.

- (3) The perception of the educator's role and level of involvement, from that of a transmitter and disseminator of knowledge to that of a facilitator of learning, consistent with a reflexive pedagogical approach. Such a pedagogy highlights differences or gaps in the individual entrepreneur's espoused perceptions of theories and it allows for the exploration of the hidden forces of resistance and conflict embedded in social discourse.
- (4) Placing a focus on the students and how they bring realism to their practices – that is, understanding how they and others select fragments of knowledge from learning experiences and then draw almost immediate conclusions from these fragments without understanding their embedded assumptions or attributions.

The above perspectives are not essentially new by any means, but how experience is captured and developed through educational pedagogies remains a serious question. Drawing on both adult and organizational learning theories, Cope (2003) emphasized that such experiential learning was triggered by the use of reflection on that learning experience. As a holistic piece this work suggests that the reflective process and learning were inextricably linked and that, because entrepreneurs learn as they engage in an activity, by reflecting on the practice of an activity, a new understanding can be developed. Taylor and Thorpe (2000) and Cope (2003) suggest that reflection can be triggered through the enactment of everyday practice, where events or breakdowns can trigger 'transformative learning'. The challenge then is how to introduce and facilitate the use of this idea of learning in entrepreneurial pedagogy, and determine what the theoretical underpinning and value would be (Cope, 2005; Higgins, 2011; Jones and Matlay, 2011).

Entrepreneurial education: a critical perspective

Learning as a process of practice illustrates how life experience influences the assumptions and choices made by entrepreneurs (Chell, 2007; Hindle, 2007). The use of reflexivity to critique practice invites entrepreneurs to question claims of existing knowledge and the process of knowledge creation. Merleau-Ponty (1964 [1962]) suggests that knowing and learning are linked with attuning oneself to situations which require skilful and experiential responses. Such responses are based not on

representation but on mediated understanding, in which the actor experiences the tensions between what is aimed for and what is achieved – which becomes habitual, in the sense that it is intuitive. Reflection is often held as a key skill, as suggested by Schon's (1983) process of reflection-on-action, in which entrepreneurs construct understanding by drawing upon experiences and organizational knowledge, and engage in a reflective process, with that situated experience. The entrepreneur is thus constantly involved in a process of questioning their own ideas and assumptions and those of others as they explore possible alternative actions by engaging in social interactions and the micro-practices of knowledge. Here, learning is both transferable and momentary as the entrepreneur adopts and reviews their social practices and the relationships which sustain them, (Higgins, 2011). Reflexivity views the generation of knowledge from a critical position, namely the social context in which an entrepreneur finds themselves at any moment and time, with the view that any insight may not necessarily be applicable in general to future activity. This perspective challenges traditional positivist ideas by acknowledging the actions of entrepreneurs and the social tensions such as power and political factors to which they are exposed as they enact their practice (Cunliffe, 2002).

Entrepreneurs tend to speak in rather practical terms and use very informal and taken-for-granted methods for making sense of their activities; in other words they develop their own means of sense-making of situations from the experience of the activity. However, current entrepreneurial pedagogy would seek to decontextualize experience in order to allow the entrepreneur to understand and, as a result, learn how to act in more effective ways. This process does not necessarily allow the entrepreneur to understand the construction of these practices in the moment of acting; after all, we draw on everyday social interactions and respond to these interactions through our sense and feelings in the moment (Cunliffe, 2004). Drawing on the entrepreneurs' tacit knowledge, which is held deep within them, what is required is a strong pedagogical method which has the ability to critique and recognize everyday lived experiences. Entrepreneurs do not exist in a vacuum devoid of emotion or social feeling. Problems such as social tensions, joy, guilt, or even helplessness, are part of the entrepreneur's life; these are not addressed in conventional pedagogies, which favour more objective, factual or functionalist views – the implicit message being that these are not business problems, but they shape the very existence of the entrepreneur's reality. Many scholars – for example, Kolb (1984) – assume that learning is a sequential process under our conscious control: in practice,

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however, this not necessarily the case (Burgoyne and Reynolds, 1997; Anderson and Thorpe, 2004).

The conceptualization of learning as a practice adopts a critical perspective in order to draw attention to the social and political process of learning by challenging dominant functionalist paradigms and exposing new ways of conceiving the problems of power, politics and learning. This adoption of a critical perspective provides the present authors with a method for exploring how learning and knowledge are constructed, by making explicit the values, beliefs and assumptions underlying social learning theory (Chell, 2000). The lack of sociological perspectives in the SME literature has led the subject area to become populated by often over-simplistic versions of complex human dynamics which fail to acknowledge and recognize the complexities of learning, serving rather to obstruct and obscure the consideration of alternative ideas. For example, learning as an experiential process presents a sociological ideology to help make sense of learning through a set of beliefs and values about how humans acquire knowledge; but the social and, more important, the political aspects of this perspective are not explored to any great depth in the current literature (Raelin, 2006). The paper positions learning as a socially enacted practice and seeks to reject the assumptions posed by the rationalist perspective and by positioning learning as a socially enacted and constructed process that is firmly rooted in the practices of the entrepreneur, where knowing is only temporary, and where knowledge is the result of continuing emerging practice and enactment (Elkjaer, 2004; Yanow, 2001; Brown and Duguid, 2001, Higgins *et al*, 2013). This view becomes critical of the cognitivist's perspectives on learning (Marshall, 2008), because knowing and learning are not situated in the individual mind but, instead, are placed in the context of social enactment; what we do together as a collective. For example, 'knowledge is not something that people possess in their heads, but rather, something that people do together'. In order for learning to emerge, existing practices must be called into question or broken down, because practices are repeated actions which can lead to the interpretation of practices as appearing to be quasi-objective or taken-for-granted assumptions of social reality (Berger and Luckmann, 1966; Schütz and Luckmann, 1989). In this regard practices imprint certain values, assumptions, norms and taken-for-granted knowledge heavily on the entrepreneur, in a self-legitimizing method; that is to say, they are accepted, used and embraced provided they continue to work (Lyotard, 1984).

Previous research has speculated on the nature of experiential learning in the context of the entrepreneur. However, despite this recognition, the current

understanding and appreciation of how entrepreneurs actually learn from experience is still somewhat fragmented (Sarasvathy, 2001; Sullivan, 2000). One reason for this gap relates to how the idea of learning and education is approached, from the entrepreneurial perspective. The study of entrepreneurial learning has traditionally compared the difference between the entrepreneur's cognitive experiences and awareness at a point in time, and related this knowledge to developments in the business. A significant observation in the literature that seeks to make sense of the role of experience in entrepreneurial learning is that it is very difficult to separate and identify specifically the effects of exogenous and endogenous factors that can influence learning. This suggests that it may be much more plausible to explore the influences of entrepreneurs' experiences on the establishment of relevant knowledge that can both directly and indirectly affect what and how they learn. Another observation regarding the earlier consideration of the role of learning in entrepreneurial research is that it adopts a static perspective on the process of learning, where the term 'process' refers to the logic of understanding and rationalizing causal relationships between the entrepreneurs' past experiences and their current practice. Little attention has been given to identifying what pedagogical methods support and seeking to understand how entrepreneurs, through experience, develop knowledge that enables them to act and learn.

Conclusion

Engagement in entrepreneurial learning at university has been shown to influence entrepreneurial intent (Greene and Saridakis, 2008) and actual business start-up (Blackford *et al*, 2009). This suggests that we should aim to provide more opportunities for our students to actively experience and learn about enterprise if the desire is to increase the number of graduate entrepreneurs emerging from UK universities. Various researchers and commentators have stated that enterprise and entrepreneurship education must include opportunities for learning by doing and for the students to participate actively and control their learning (see, for example, NCGE, 2008; Gibb, 2005). In their summaries of the literature, Rae and Woodier (2006) and Higgins and Mirza (2010) state that the concept of 'experiential' learning is the most powerful learning situation, developing self-efficacy and helping an individual act on their intentions and influencing the pursuit of a new business venture. There is currently no single agreed theory of entrepreneurship, even though research in the field has touched on several entrepreneurial factors such as the conceptual idea, types of entrepreneurs, the

organizational firms, trait, the entrepreneurial process and many others (Ucbasaran *et al.*, 2006). Previous research has moved the focus of attention away from the identification of persons with particular characteristics and traits, and towards seeking greater understanding of the nexus of enterprising individuals (Venkataraman, 1997). As a result, pedagogical approaches must place more emphasis on practice and experiential and reflective methods in order to develop and enhance a critical way of thinking in order to embrace fully the complexities of entrepreneurial learning (Gibbs, 2002). This suggested approach would seek to encourage a view of learning as a socially enacted practice supported by the use of critical thinking as 'praxis' in order to provide opportunities for the entrepreneur to participate actively in and recognize and value their experiences (Peltier *et al.*, 2008; Schlee *et al.*, 2007).

Such a focus requires a much deeper understanding of the opportunities and educational requirements in the entrepreneurial process (Eckhardt and Shane, 2002). Entrepreneurialism is a process of practice, one for becoming: it is a highly dynamic, iterative process of intense socially enacted activity, a holistic process in which existing stability disappears (Bygrave, 1989). Gibb (2002) suggests that an entrepreneur is a person who seeks to destroy economic order; regards entrepreneurship as being concerned with seeking out and identifying new opportunities, creativity, breaking rules, taking risks and co-ordinating resources; and Shook *et al.* (2003) suggest that it is concerned with interacting with the environment, discovering, evaluating and exploiting opportunities. The increasing number of seminars and courses offered by universities, colleges and private practitioners, together with the variety of academic literature which has emerged, can be regarded as evidence of the current interest in entrepreneurial education (Vesper and Gartner, 1997; Solomon *et al.*, 2002; Henry *et al.* 2003). Entrepreneurship is about creativity and critical thinking, which suggests the need for a contextual move away from traditional pedagogical approaches to teaching and learning toward a more real-life application of entrepreneurial practice in which experience needs to be gained through active participation (Gorman *et al.*, 1997).

In particular, focus has been placed on the role that education plays in entrepreneurship and especially the suitability, relevance and effectiveness of passive and experiential learning strategies employed (Raelin, 2007). This focus raises the question of whether entrepreneurs find greater effectiveness from learning through strategies of action and reflection, or whether the traditional and more passive methods of education remain the only sources of learning.

Learning in the context of the entrepreneur has been described in terms of the varying skills that are required in order to absorb new information and attribute meaning and context effectively. This suggests that the creation of knowledge involves both procedural and contextual elements. Procedural knowledge involves the process of knowing how to take data and develop them into information; contextual knowledge places attention on the environmental domains and awareness of the entrepreneur, their influence on the environment and the problems that arise from it. In this regard, connectionist or social learning theories can provide a useful platform from which to understand the creation of entrepreneurial knowledge.

Notes

- ¹ 'Push' regarded and defined as changes both positive and negative within circumstances both personal and professional.
- ² 'Pull' – a desire for change, growth or development.

References

- Anderson, L., and Thorpe, R. (2004), 'New perspectives on action learning: developing criticality', *Journal of European Industrial Training*, Vol 28, No 8/9, pp 657–668.
- Anderson, A.R., and Warren, L. (2011), 'The entrepreneur as hero and jester: enacting the entrepreneurial discourse', *International Small Business Journal*, Vol 29, No 6, pp 589–609.
- Antonacopoulou, E.P. (2007), 'Actionable knowledge', in Clegg S., and Bailey, J., eds, *International Encyclopaedia of Organization Studies*, Sage, London, pp 14–17.
- Antonacopoulou, E.P. (2008), 'On the practise of practice: in-tensions and ex-tensions in the ongoing reconfiguration of practice', in Barry, D., and Hansen, H., eds, *The SAGE Handbook of New Approaches to Entrepreneurship and Organization*, Sage, London, pp 112–131.
- Bechard, J.-P., and Gregoire, D. (2005), 'Entrepreneurship education research re-visited: the case of higher education', *Academy of Management Learning and Education*, Vol 4, No 1, pp 22–43.
- Berger, P.L., and Luckmann, T. (1966), *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, Anchor Books, New York.
- BERR (2008), *Enterprise: Unlocking the UK's Talent*, <http://www.berr.gov.uk/files/file44992.pdf> (accessed July 2011).
- Blackford, B., Sebora, T., and Whitehill, T. (2009), 'The effects of collegiate entrepreneurship education on post-graduation startup of new ventures: a first look', *International Review of Entrepreneurship*, Vol 7, No 3, pp 1–26.
- Brookfield, S., and Preskill, S. (1999), *Discussion as a Way of Teaching: Tools and Techniques for Democratic Classrooms*, Jossey-Bass, San Francisco, CA.
- Brown, J.S., and Duguid, P. (2001), 'Knowledge and organization: a social-practice perspective', *Organization Science*, Vol 12, No 2, pp 198–213.
- Bumpus, M.A., and Burton, G. (2008), 'Chapters in the life of an entrepreneur: a case study', *Journal of Education for Business*, Vol 83, No 5, pp 302–308.
- Burgoyne, J., and Reynolds, M., eds (1997), *Management Learning: Integrating Perspectives in Theory and Practice (Introduction)*, Sage, London 368 pp 1–16.

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- Bygrave, W.D. (1989), 'The entrepreneurship paradigm (1): a philosophical look at its research methodologies', *Entrepreneurship: Theory and Practice*, Vol 14, No 3, pp 7–26.
- Carey, C., and Matlay, H. (2011), 'Emergent issues in enterprise education: the educator's perspective', *Industry and Higher Education*, Vol 25, No 6, pp 441–450.
- Chapman, D., Lawton Smith, H., Wood, P., Barnes, T., and Romeo, S. (2011), 'University enterprise: the growth and impact of university-related companies in London', *Industry and Higher Education*, Vol 25, No 6, pp 483–492.
- Chell, E. (2000), 'Towards researching the "opportunistic entrepreneur": a social constructionist approach and research agenda', *European Journal of Work and Organisational Psychology*, Vol 9, No 1, pp 65–82.
- Chell, E. (2007), 'Social enterprise and entrepreneurship: towards a convergent theory of the entrepreneurial process', *International Small Business Journal*, Vol 25, No 1, pp 5–26.
- Clarke, J., Thorpe, R., Anderson, L., and Gold, J. (2006), 'It's all action, it's all learning: action learning in SMEs', *Journal of European Industrial Training*, Vol 30, No 6, pp 441–455.
- Cope, J. (2003), 'Entrepreneurial learning and critical reflection: discontinuous events as triggers for higher-level learning', *Management Learning*, Vol 34, No 4, pp 429–450.
- Cope, J. (2005), 'Researching entrepreneurship through phenomenological enquiry', *International Small Business Journal*, Vol 23, No 2, pp 163–191.
- Corbett, A. (2005a), *Universities and the Europe of Knowledge: Ideas, Institutions and Policy Entrepreneurship in European Community Higher Education Policy, 1995–2005*, Palgrave-Macmillan, Basingstoke.
- Corbett, A. (2005b), 'Experiential Learning Within the Process of Opportunity Identification and Exploitation', *Entrepreneurship: Theory and Practice*, Vol 29, No 4, pp 473–491.
- Cunliffe, A.L. (2002), 'Reflexive dialogical practice in management learning', *Management Learning*, Vol 33, No 1, pp 35–61.
- Cunliffe, A.L. (2004), 'On becoming a critically reflexive practitioner', *Journal of Management Education*, Vol 28, No 4, pp 407–426.
- Down, S. (2006) *Narratives of Enterprise: Crafting Entrepreneurial Identity in a Small Firm*, Edward Elgar, Cheltenham.
- Drakopoulou Dodd, S.D., and Anderson, A.R. (2007) 'Mumpsimus and the mything of the individualistic entrepreneur', *International Small Business Journal*, Vol 25, No 4, pp 341–360.
- Eckhardt, J.T., and Shane, S.A. (2002), 'Opportunities and entrepreneurship', *Journal of Management*, Vol 29, No 3, pp 333–349.
- Elkjaer, B. (2004), 'Organizational learning – the "third way"', *Management Learning*, Vol 35, No 4, pp 419–434.
- French, R., and Grey, C., eds (1996), *Rethinking Management Education*, Sage, London.
- Gartner, W.B. (1985), 'A conceptual framework for describing the phenomenon of new venture creation', *Academy of Management Review*, Vol 10, pp 696–706.
- Gibb, A.A. (2005), 'Towards the entrepreneurial university: entrepreneurship education as a lever for change', *National Council for Graduate Entrepreneurship Policy Paper*, NCGE: Birmingham.
- Gibb, A.A. (2002), 'Creating conducive environments for learning and entrepreneurship: living with, dealing with, creating and enjoying uncertainty and complexity', *Industry and Higher Education* Vol 16, No 3 pp 135–148.
- Gibb, A.A. (2009), 'Meeting the development needs of owner-managed small enterprise: a discussion of the centrality of action learning', *Action Learning: Research and Practice*, Vol 6, No 3, pp 209–227.
- Goodlad, J. (1992), 'The moral dimensions of schooling and teacher education', *Journal of Moral Education*, Vol 21, pp 87–97.
- Gorman, G., Hanlon, D., and King, W. (1997), 'Some research perspectives on entrepreneurship education, enterprise education, and education for small business management: a ten-year literature review', *International Small Business Journal*, Vol 15, No 3, pp 56–77.
- Goss, D. (2005), 'Entrepreneurship and "the social": towards a deference–emotion theory', *Human Relations*, Vol 58, No 5, pp 617–636.
- Greene, F.J., and Saridakis, G. (2008), 'The role of higher education skills and support in graduate self-employment', *Studies in Higher Education*, Vol 33, No 6, pp 653–672.
- Hamilton, E. (2005), 'Situated learning in family business: narratives from two generations', Doctoral Thesis, Lancaster University Management School, Lancaster.
- Hamilton, E. (2011), 'Entrepreneurial learning in family business: a situated learning perspective', *Journal of Small Business and Enterprise Development*, Vol 18, No 1, pp 8–26.
- Hannon, P.D. (2006), 'Teaching pigeons to dance', *Education and Training*, Vol 48, No 5, pp 296–308.
- Henry, C., Hill, F., and Leitch, C. (2003), *Entrepreneurship Education and Training*, Ashgate, Aldershot.
- Henry, C., Hill, F., and Leitch, C. (2005), 'Entrepreneurship education and training: can entrepreneurship be taught? Part I', *Education + Training*, Vol 47, No 2, pp 98–111.
- Higgins, D. (2011), 'Why reflect? Recognising the link between learning and reflection', (Editorial), *Journal of Reflective Practice*, Vol 12, No 5, pp 583–584.
- Higgins, D., and Mirza, M. (2010), 'Learning in and through work practices: meditational artefacts as a process of social learning in the knowledge-based small firm', *International Journal of Innovation and Learning*, Vol 8, No 2, pp 189–207.
- Higgins, D., Smith, K., and Mirza, M. (2013) 'Entrepreneurial education: reflexive approaches to entrepreneurial learning in practice', *Journal of Entrepreneurship*, Vol 22, No 2, pp 135–160.
- Hindle, K. (2007), 'Teaching entrepreneurship at university: from the wrong building to the right philosophy', in Fayolle, A., ed, *Handbook of Research in Entrepreneurship Education: A General Perspective, Volume 1*, Edward Elgar, Cheltenham, pp 104–126.
- Honig, B. (2004), 'Entrepreneurship education: toward a model of contingency-based business planning', *Academy of Management Learning and Education*, Vol 3, No 3, pp 258–273.
- Jones, C., and Matlay, H. (2011), 'Understanding the heterogeneity of entrepreneurship education: going beyond Gartner', *Education and Training*, Vol 53, No 8/9, pp 692–703.
- Jones, O., Macpherson, A. and Thorpe, R. (2010), 'Learning in owner-managed small firms: mediating artefacts and strategic space', *Entrepreneurship and Regional Development*, Vol 22, No 7/8, pp 649–763.
- Kolb, D.A. (1984), *Experiential Learning: Experience as the Source of Learning and Development*, Prentice-Hall, Upper Saddle River, NJ.
- Lazear, E.P. (2004), 'Balanced skills and entrepreneurship', *American Economic Review*, Vol 94, No 2, pp 208–211.
- Lewis, H. (2011), 'A model of entrepreneurial capability based on a holistic review of the literature from three academic domains', *Industry and Higher Education*, Vol 25, No 6, pp 429–440.
- Lyotard, J-F. (1984), *The Postmodern Condition*, Manchester University Press, Manchester.
- Marshall, N. (2008), 'Cognitive and practice-based theories of organizational knowledge and learning: incompatible or complementary?', *Management Learning*, Vol 39, No 4, pp 413–435.

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- Matlay, H. (2005), 'Researching entrepreneurship and education, part 1: what is entrepreneurship and does it matter?', *Education + Training*, Vol 47, No 8/9, pp 665–677.
- Matlay, H. (2009), 'Entrepreneurship education in the UK: a critical analysis of stakeholder involvement and expectations', *Journal of Small Business and Enterprise Development*, Vol 16, No 2, pp 355–368.
- Matlay, H., and Storey, D.J. (2003), 'Should you become an entrepreneur? Positive and negative factors affecting individual career choices', paper presented at the Mercia Fest, Warwick University, Coventry.
- Matlay, H., and Westhead, P. (2005), 'Virtual teams and the rise of e-entrepreneurship in Europe', *International Small Business Journal*, Vol 12, No 3, pp 99–116.
- Merleau-Ponty, M. (1964 [1962]), *Signs*, McCleary, R.C., transl, Northwestern University Press, Evanston, IL.
- Millman, C., Matlay, H., and Liu, F. (2008), 'Entrepreneurship education in China: a case study approach', *Journal of Small Business and Enterprise Development*, Vol 15, No 4, pp 802–815.
- Mintzberg, H. (2004), *Managers not MBAs: A Hard Look at the Soft Practice of Managing and Management Development*, Prentice Hall, Harlow.
- NCGE (2008), 'Developing entrepreneurial graduates: putting entrepreneurship at the centre of higher education', *Joint report by CIHE, NCGE and NESTA*, NCGE, Birmingham.
- Peltier, J.W., Schibrowsky, J.A., and Zhao, Y. (2009), 'Understanding the antecedents to the adoption of CRM technology by small retailers: entrepreneurs vs owner-managers', *International Small Business Journal*, Vol 27, No 3, pp 307–336.
- Pfeffer, J., and Fong, C.T. (2002), 'The end of the business school? Less success than meets the eye', *Academy of Management Learning and Education*, Vol 1, No 1, pp 78–95.
- Pittaway, L., and Cope, J. (2007), 'Simulating entrepreneurial learning: integrating experiential and collaborative approaches to learning', *Management Learning*, Vol 38 No 2, pp 211–233.
- Politis, D. (2005), 'The process of entrepreneurial learning: a conceptual model', *Entrepreneurship: Theory and Practice*, Vol 29, No 4, pp 399–424.
- Rae, D. (2006), 'Entrepreneurial learning: a conceptual framework for technology-based enterprise', *Technology Analysis and Strategic Management*, Vol 18, No 1, pp 39–56.
- Rae, D. and Woodier, N. (2006), 'Graduate career choices and entrepreneurship', National Council for Graduate Entrepreneurship (NCGE), Birmingham.
- Raelin, J.A. (2006), 'Does action learning promote collaborative leadership?', *Academy of Management Learning and Education*, Vol 5, No 2, pp 152–168.
- Raelin, J.A. (2007), 'Toward an epistemology of practice', *Academy of Management Learning and Education*, Vol 6, No 4, pp 495–519.
- Sarasin, L.C. (1999), *Learning Styles Perspectives: Impact in the Classroom*, Atwood Publishing, Madison, WI.
- Sarasvathy, S.D. (2001), 'Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency', *Academy of Management Review*, Vol 26, No 2, pp 243–263.
- Schlee, P.R., Harich, R.K., Kiesler, T., and Curren, T.M. (2007), 'Perception bias among undergraduate business students by major', *Journal of Education for Business*, Vol 82, No 3, pp 169–177.
- Schon, D. (1983), *The Reflective Practitioner: How Professionals Think in Action*, Basic Books, New York.
- Schütz, A., and Luckmann, T. (1989), *The structure of the life-world. Volume II*, Northwestern University Press, Northwestern University, Evanston, IL.
- Shane, S. (2003), *A General Theory of Entrepreneurship: The Individual–Opportunity Nexus*, Edward Elgar, Cheltenham.
- Shook, C.L., Priem, R.L., and McGee, J.E. (2003), 'Venture creation and the enterprising individual: a review and synthesis', *Journal of Management*, Vol 23, No 3, pp 379–399.
- Solomon, G.T., Duffy, S., and Tarabishy, A. (2002), 'The state of entrepreneurship education in the United States: a nationwide survey and analysis', *International Journal of Entrepreneurship Education*, Vol 1, No 1, pp 65–86.
- Sullivan, R. (2000), 'Entrepreneurial learning and mentoring', *International Journal of Entrepreneurial Behaviour and Research*, Vol 6, No 3, pp 160–175.
- Tan, S.S., and Ng, C.K.F. (2006), 'A problem-based learning approach to entrepreneurship education', *Education + Training*, Vol 48, No 6, pp 416–428.
- Taylor, D.W. and Thorpe, R. (2004), 'Entrepreneurial learning: a process of co-participation', *Journal of Small Business and Enterprise Development*, Vol 11, No 2, pp 203–211.
- Thorpe, R., Jones, O., Macpherson, A., and Holt, R. (2008), 'The evolution of business knowledge in SMEs', in Scarborough, H., Ed, *The Evolution of Business Knowledge*, Oxford University Press, Oxford.
- Trehan, K., and Rigg, C. (2007), 'Working with experiential learning', in Vince, R., and Reynolds, M., eds, *Experiential Learning*, Oxford University Press, Oxford.
- Trehan, K., and Rigg, C. (2011), 'Theorising critical HRD: a paradox of intricacy and discrepancy', *Journal of European Industrial Training*, Vol 35, No 3, pp 276–290.
- Ucbasaran, D., Westhead, P., and Wright, M. (2006), *Habitual Entrepreneurs*, Edward Elgar, Cheltenham.
- Venkataraman, S. (1997), 'The distinctive domain of entrepreneurship research: an editor's perspective', in Katz, J., and Brockhaus, R., eds, *Advances in Entrepreneurship, Firm Emergence and Growth: Volume 3*, Greenwich, JAI Press, Greenwich, CT, pp 119–138.
- Vesper, Karl-H., and Gartner, W.B. (1997), 'Measuring progress in entrepreneurship education', *Journal of Business Venturing*, Vol 12, No 5, pp 403–421.
- Winch, C., and Gingell, J. (2004), *Philosophy and Educational Policy*, Routledge, London.
- Yanow, D. (2001), 'Learning in and from improvising: lessons from theater for organizational learning reflections', *Society for Organizational Learning Journal*, Vol 2, No 4, pp 58–62.
- Zhang, J., and Hamilton, H. (2010), 'Entrepreneurship education for owner-managers: the process of trust building for an effective learning community', *Journal of Small Business and Entrepreneurship* Vol 23, No 2, pp 249–270.