The contribution of momentary perspectives to entrepreneurial learning and creativity

David Rae

Abstract: This article explores how conceptualizing ‘the moment’ in entrepreneurship contributes to understanding entrepreneurial processes of learning and creativity. The significance of ‘the aha moment’ in entrepreneurial behaviour is widely used at a popular level but has not been well explored in relation to knowledge of human learning. The ‘moment’ is taken to be a point in time when we experience conscious mental awareness of what is going on and are able to generate meaning from this awareness, and to remember our thinking and responses. The aims of the article are: (a) to explore the connections between the concept of the moment in entrepreneurship and processes of learning and creativity; (b) to develop a framework that can be used to understand momentary perspectives in entrepreneurship; and (c) to explore the implications for entrepreneurial education and practice.

Keywords: entrepreneurship; creativity; learning; narrative; emotion; moment

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This article explores the contribution of ‘the moment’ in relation to processes of entrepreneurial learning and creativity. The notion of the ‘eureka’ or ‘light bulb’ moment of entrepreneurial creativity is prevalent at a popular level, but has been less well explored in relation to wider knowledge of human learning and creativity; however, advances in neuroscience and education are providing new understanding of these connections which can be of significant value in entrepreneurship education.

These can build on deeper knowledge, drawn from literature, philosophy and science, which enables us to make sense of momentary interactions in periods of complex cultural, economic and technological transition. In particular, understanding how human behaviour operates ‘in the moment’, and the significant role of unconscious, intuitive and emotional processes, represent an alternative stance to previous highly rational conceptualizations of entrepreneurial cognition and behaviour (see, for example, Mitchell et al., 2007). The article proposes how ‘momentary perspectives’ can contribute to understanding, conceptualizing and using entrepreneurial behaviour in learning situations, including the roles of subconscious and serendipitous activities, which often go beyond intentional and rational working.

The aims of the article are:

(1) To explore the connections between the concept of the moment in entrepreneurship with processes of learning and creativity;
(2) To develop a framework which can be used to understand momentary perspectives in entrepreneurship; and
(3) To explore the implications for entrepreneurial education and for practice.

The article summarizes current and emerging knowledge on the significance of ‘the moment’ which originate from a range of domains of knowledge in philosophy, literature and narrative, social education, psychology and cognition, and learning, making conceptual connections between important themes in these disciplines with the experience of creativity and entrepreneurship. The results of two limited-scale studies of entrepreneurs and entrepreneurship educators are presented and used to develop an initial framework for momentary perspectives which can be applied to understand entrepreneurial behaviours such as how learning, creative thinking and decision-making operate in the moment. The possible value and applications of momentary perspectives in relation to these are outlined.

What is ‘the moment’ and why is it significant?

The moment occurs in many aspects of everyday life, yet its definition is elusive, such as ‘a turning point in a series of events’ (Shorter Oxford Dictionary). There is a burgeoning popular literature, including Shaw (2010) and Lehrer (2009), and some studies such as Piillemder (1998) which make conceptual work available. In this article, the ‘moment’ is taken as a point in time when we experience conscious mental awareness of what is going on, either within the mind, or around us, and are aware and able to remember our thinking and responses. Its meaning is related to the human experience and generation of meaning at a point in time. It is not a fixed time interval, such as the ‘blink’ identified by Gladwell (2005), but a conscious attention span of subjective duration. The experience of lived existence is a sequence of moments, expressed by Damasio’s (2000) understanding of consciousness as ‘the movie in the brain’.

Moments are transitory; they can bring retrospective realization that change has occurred through an event carrying significant meaning or enduring consequences, but most are incidental and pass without significance (Bergson, 1911). Incidents and events are extrinsic phenomena which may trigger realizations with individual significance or meaning. A ‘critical incident’ (Cope, 2005) or ‘entrepreneurial event’ (Shapero and Sokol, 1982) is distinct from the cognitive meaning or emotional response it creates in the subjective moment. Concepts connected with understanding of the moment include extrinsic time, context and serendipity, and internal dimensions of memory, emotion, creativity, and learning. As Bergson (1911) observed, the moment does not exist separately from its past, but rather there is a co-existent connection between the present, the past and the future. Whilst the vast majority of ‘endured time’ is lived in moments which are neither significant at the time, or memorable in retrospect, a tiny number of incidents are exceptions to this flow of existence, being experienced either at the time or subsequently to be ‘momentous’; it is these which concern us.

Many periods in modern history have been described retrospectively as ‘momentous’ because they initiated disruptive shifts which altered the prior direction and trajectory of society. The combination of two phenomena makes the concept of the moment increasingly important to entrepreneurship in this context. One is the constantly unfolding and unpredictable economic and business context which has emerged since the financial crisis of 2008, creating a ‘new era’ of complexity, risk and rapid change in the entrepreneurial business environment (Rae, 2010). It is increasingly clear that the fundamental economic and social shifts in the period since 2008 will be seen as representing a momentous change in Western economies (see, for example, Kaletsky, 2010; Cable, 2010). In recent history, the banking and financial crises from 2008 have demonstrated moments which had enduring consequences, such as the collapse of Lehman Brothers Bank, which brought a realization that profound and meaningful change had occurred. In parallel has been the rapid emergence of the digital economy, based on continually evolving technologies which are accelerating and enlarging the scale of entrepreneurial opportunities. This virtual entrepreneurial economy depends on a continuous digital media flow of messages, images and data which is making processes of momentary perception and decision-making increasingly important. Together, these factors mean that processes of entrepreneurial creativity, opportunity recognition, learning and decision-making which occur in the moment are increasingly important facets of entrepreneurial behaviour. These need better understanding in order to be integrated into learning and educational practices.

The entrepreneurial moment

Theories about the moment occur across numerous domains of knowledge; these include narrative, philosophy, creativity, education, psychology, neural and cognitive sciences. To understand human experience in the moment we need to consider how it connects with this range of perspectives. This article
does not set out to systematically review these, because that is addressed elsewhere (Rae, 2014), but rather in this section to focus on the most relevant connections between entrepreneurship theory and the moment.

Philosophy, notably from the phenomenological, pragmatic and existentialist movements, provided early and illuminating insights into the ‘problem’ of time and past, future and present moments. Whilst many such insights remain valid observations on the human condition, cognitive science increasingly offers understanding of neural networks, processing and how brain function operates in momentary operations which complement and to some extent supersede philosophical conclusions. Yet the moment is constructed in both subjective consciousness of experience, which can be expressed in narratives, such as life stories and reflections on learning, as well as existing scientifically as an objectively observed phenomenon, just as time may be taken to be either and both the ‘flow’ of the durée and of chronological Newtonian time. Neither deny the other and both are required to understand the momentary experience. We may be closer to narrowing, but not yet bridging, the gap expressed in David Lodge’s novel Thinks (Lodge, 2001) between the creation of conscious understanding expressed through mindful narrative and the neural operations of the brain. How we think, feel and behave in the moment are at the centre of this debate. Based on this understanding, the concern of this article is with the human experience of the moment in entrepreneurial learning and creativity.

Narratives are central means of making sense of human experience within a schema or sequence of other moments. Narratives have become widely established in entrepreneurship, often related to learning and the notion of ‘learning episodes’ as periods of learning subsequently recognized as being significant in forming approaches to life and work as well as the production of identity (Pitt, 1998; Rae and Carswell, 2000; Rae, 2005). But narratives can, as well as being retrospective, also be prospective, building future conjecture based on past experience, such as in the presentation of a business strategy for a new venture. In relation to creativity and recognition of entrepreneurial opportunity associated with the moment, Wallas (1926) referred to moments of ‘illumination’ in the four classical phases of creativity, later developed by Lumpkin et al (2004) into a creativity-based model of entrepreneurial opportunity recognition, centred on a moment of ‘insight’. Kneller (1965) suggested ‘first insights’ preceed ‘the moment of creation’, occurring after a period of conscious preparation and an interlude of non-conscious activity. Inspiration and opportunity recognition often stem from the insights gained by making perceptual connections between previously unassociated ideas and information: as Penaluna et al (2009) concluded, ‘most creative ideas are achieved through insight’.

From an educational perspective, Maslow wrote of the ‘peak experience’ as a revelatory moment of learning: ‘these moments were of pure, positive happiness when all doubts, all fears, all inhibitions, all tensions, all weaknesses were left behind’ (Maslow, 1969, p 9). This idea of peak performance also relates to Carlstedt (2004) who developed a ‘theory of critical moments’ in sports psychology, which enabled superior athletic performance through directed thinking and repression of negative intrusive thoughts ‘during critical moments of competition’ (Carlstedt, 2004, p 3). This has informed the use of critical moments in coaching education and practice, with awareness of doubt being identified as a recurrent factor in less experienced coaches, and the management of uncertainty, tension, emotion and doubt being essential factors in turning critical moments into ‘breakthrough’ moments (de Haan, 2007).

This is related to the influential concept of ‘flow’ psychology developed by Csíkszentmihályi (1996) and applied in sports psychology, in which immersion in an activity transcends a sense of time. Frick (1990) developed the concept of ‘symbolic growth experiences’ as heuristic inquiry, establishing integration and stability and promoting change and growth in the learning experience. These experiences have a strong affinity with a momentary perspective in learning. This can also be traced in the emergence of a ‘momentary turn’ in thinking on teaching and learning in the United States, following Pillemer’s work (1998) which identified six functional categories of personal event memories: memorable messages, symbolic messages, originating events, anchoring events, turning points and analogous events. These are useful categories which are related to memory, narrative and the development of self as well as gender and personality. This development is led by Giordano (2004; 2010) who explored the importance of serendipity and critical moments, focusing on incidents such as casual comments made by educators which had transformative effects on learners’ personal journeys. Giordano (2004) defines such moments as infrequent; specific in time; related to personal and emotional being; recognized only subsequently; and unnoticed by teachers. He differentiated these from ‘teachable moments’, making connections with dynamic systems and chaos theory (Gleick, 1987): ‘Chaos theory provides a functional model for how a student’s self-understanding may change dramatically over time as a result of an initial small disruption, such as a casual remark made by a professor to a student’ (Giordano, 2010, p 20). Bedeian (2007) developed parallel ideas on critical moments in learning with symbolic meaning,
The late Jason Cope conceptualized ‘critical events’ as a unifying theme in entrepreneurial learning, proposing that they created ‘metamorphic’ fundamental learning during ‘dynamic temporal phases’ of entrepreneurial learning (Cope, 2005). Cope acknowledged the constant adaptive and incremental learning during everyday experiences, but proposed that discontinuous, critical learning events could stimulate challenging, ‘deep’ reflection and create higher-level entrepreneurial learning; and that proactive generative learning could enable entrepreneurs to anticipate and apply prior learning to critical events. In parallel, Rae and Carswell (2000) developed the notion of ‘learning episodes’ occurring within biographical narratives of entrepreneurial learning.

As in teaching, entrepreneurship can centre on serendipity, or fortunate chance events coupled with sagacity. Dew (2009) developed a conceptual framework for entrepreneurial serendipity in opportunity discovery which connected systematic exploration of extant knowledge with pre-discovery intuition, spontaneous recognition and serendipitous discovery of something the entrepreneur was not looking for. Dew’s model contributes to theories of opportunity discovery but, surprisingly, did not connect with the literature or practice of entrepreneurial learning or education.

Other than these sources, the literature on entrepreneurial cognition placed less importance on ‘the moment’, although Mitchell et al (2007) recognize the increasing evidence of emotion and affect in entrepreneurial cognition. Shapero and Sokol (1982) conceptualized the ‘entrepreneurial event’ as a critical point in the development of an entrepreneurial venture, such as initiative taking, consolidation, management, relative autonomy and risk-taking. This was developed by Krueger and Brazeal (1994) to create a model of entrepreneurial potential which located the significance of a ‘precipitating event’ in shaping entrepreneurial intentions. Krueger’s subsequent work showed the role of ‘critical developmental experiences’ in forming entrepreneurial beliefs and cognitive structures (Krueger, 2007). In relation to opportunity recognition, Grégoire et al (2010) explored the role of cognitive processes and developed a model of opportunity recognition as a cognitive process of structural alignment, finding that a range of types of mental connections and prior knowledge affect opportunity recognition. Kollmann and Kuckertz (2006) argued that the entrepreneurial event was of ‘utmost importance’ within the entrepreneurial process, and developed a framework for four ‘archetypes’ of opportunity recognition and exploitation, and a list of categories of entrepreneurial events. They suggested two classes of entrepreneurial events:

‘The more confident part of the entrepreneurial population regards the starting point of the entrepreneurial process to be the very moment when the entrepreneur starts to act entrepreneurial and tries to take advantage of a certain business opportunity. However...entrepreneurs of a more sceptic nature ... need proof of concept provided by the market ... and only start when customer interaction has happened.’ (Kollmann and Kuckertz, 2006, p 45)

Cognitive science provides growing understanding of the moment through cognitive processing via neural networks. This is both controversial in regard to the efficacy of cognitive mapping in creating understanding of ‘what is thought and felt’ as distinct from showing connections between areas in the brain; and for the non-scientist much of the research is not readily understandable. Again, this article does not attempt a comprehensive review, but selects key contributions.

Various studies have highlighted the connected roles of identity, emotion and cognition in momentary perceptions (see, for example, Sanitioso and Conway, 2006; Izard, 2009; Lewis, 2004; Damasio, 2012). Memory is a critical factor in the recall of significant moments, from Bartlett’s (1932) theory of remembering, as ‘imaginative reconstruction’ based on attitude towards past reactions and experiences, organized through schematas. We know memory is partial, selective, reconstructive and inferred as well as reproductive. Cognitive neuroscience has studied episodic memory, showing connections between emotion and memory, and positive autobiographical memories containing more sensory and contextual information than negative memories (D’Argembeau et al, 2003).

In relation to decision-making, Banks and Isham (2009) studied the connection between action and reported decisions, finding that rather than a causal model of intuitive volition leading to consciously decided action,

‘...the intuitive model has it backwards; generation of responses is largely unconscious, and we infer the moment of decision from the perceived moment of action.’ (Banks and Isham, 2009, p 20)

This has significant implications, suggesting subconscious mental processing resulting in decisions to act is faster and governs responses in the moment more than conscious intentionality. There have been many
Contribution of momentary perspectives to entrepreneurial learning and creativity

Initial studies on entrepreneurial moments

Two small, exploratory surveys were undertaken to gather qualitative data on ‘significant moments’ in relation to entrepreneurship. The first was an online electronic survey of entrepreneurs and enterprise educators conducted via SurveyMonkey: there was an open invitation to workshop participants to complete this. The second was a series of interviews with 50 business owners and managers who had participated in a small business development programme and who were asked to recall any ‘special moments’ from their learning. This is summarized in the next section. The aim in both cases was to explore their experiences by gathering examples of the types of moment people recalled as significant. The limited number of respondents means that the results, and any conceptualization based on them, can be no more than propositional.

The online survey used a simple framework which offered categories of commonly occurring types of entrepreneurial moments. It consisted of six questions, which were developed on the basis of selected literature and through a short workshop with enterprise educators. The questionnaire was then tested using peer review, structured interviews with entrepreneurs and an online trial group. Respondents were asked to respond to the following questions, which focused on the recollection of a ‘special moment’ elicitation of responses associated with perceiving, generating meaning and acting.

1) What is your main role and activity in enterprise?
2) Think back to a ‘special’ or significant moment in your experience of entrepreneurial activity. Can you describe what happened in that moment? [Perceiving]
3) What made that moment ‘special’ or memorable for you? [Generating meaning]
4) How did the moment affect you? How did it make you feel? [Generating meaning]
5) What did you do as a result? Describe what actions it led you to take. [Acting]
6) Which of the following most closely describes your chosen moment:
   • problem or incident;
   • creative inspiration;
   • opportunity recognition;
   • social encounter; or
   • discovery of new knowledge?

The survey was open to respondents who were self-selecting within three groups: entrepreneurs who had initiated new ventures; educators who helped people learn entrepreneurial skills; and advisors, mentors or researchers who worked with entrepreneurs. It was introduced in a number of learning events for both entrepreneurs and educators, in which the questions were used as an exercise and participants were then asked to record their responses through the questionnaire. A link to the survey was also circulated by ‘Twitter’ to enable people in these groups to respond. Of the 30 who completed it, 14 self-identified as entrepreneurs, 8 as educators, 6 as advisors, mentors or researchers and 2 did not disclose their roles. All provided textual details of their chosen moment, and categorized these as follows in response to question six.

- Five (17%) described it as a problem or incident.
- Six (20%) described it as creative inspiration.

From this summary, it is suggested that three interconnected mental processes are critical in understanding the moment: perception, generation of meaning, and acting. Most perception takes place at an ‘unconscious’ level, with selective conscious attention, awareness and memory of perception covering a much more limited span than unconscious awareness. Meaning is constantly being generated from the interconnections between perceptions and memory, with decisions to act being formed and executed. There is a complex and constant interaction between unconscious mental activity and conscious awareness, in which ‘realizations’ occur and conceptions of learning are generated in moments which may be remembered. These three processes of perceiving, generating meaning and acting form the framework developed later in the article.

The next section introduces two small studies which aimed to gather perceptions of ‘momentary perspectives’ in entrepreneurial learning and practice. Further understanding and a conceptual framework are then developed, based on exploration of the above three processes.

studies of creativity, such as that of Terzis (2001) who explored the role of ‘crosstalk’ through visual perception in triggering creative ‘eureka’ moments. Damasio proposed that creativity requires more mental resources of memory, reasoning ability and language than consciousness alone can provide, yet consciousness is ‘ever present’ in the process of creativity (Damasio, 2000, p 315). Recently, Beeman and Kounios (2009) explored creative insights through monitoring brain activity, proposing that intuition and anticipation assist in creative problem-solving. This demonstrated that brain activity in the temporal lobe of the anterior superior temporal gyrus is highly associated with creative work. If cognitive neuroscience has located the locus of creative insights, this has potentially broad implications for applied research on learning and creativity.

Meaning is constantly being generated from the interconnections between perceptions and memory, with decisions to act being formed and executed. There is a complex and constant interaction between unconscious mental activity and conscious awareness, in which ‘realizations’ occur and conceptions of learning are generated in moments which may be remembered. These three processes of perceiving, generating meaning and acting form the framework developed later in the article.

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Seventeen (57%) described it as opportunity recognition.
Six (20%) described it as a social encounter.
Seven (23%) described it as the discovery of new knowledge.

There were six cases of the same incident being described in more than one category although the question asked which most closely described the chosen moment; five of these combined opportunity recognition and discovery of new knowledge and one combined social encounter and discovery of new knowledge.

Closer analysis of the moments and related description showed that the categories selected by the respondents could be interpreted differently; for example, most of those categorized as ‘discovery of new knowledge’ took place in social situations and also involved recognizing new opportunities. Similarly, several of the ‘creative inspirations’ occurred in social situations. This small sample led to the conclusion that in considering ‘the moment’, even when categories are explained to respondents and simple labels provided, they are neither interpreted exclusively nor consistently, with respondents using multiple categories to describe the same moment. Hence, subjective recollection does not facilitate consistent categorization into these groups via a remote questionnaire. However, when the same questions were used in an educational setting, respondents were able to categorize the moments but, again, often used multiple categories.

Turning to the types of moment, Table 1 presents examples from the survey of each type, the effects reported and the responses cited. Although the moments themselves varied quite widely in nature, there were common instances, such as gaining clients or contracts, and the decision to start a business venture or become self-employed.

It was possible, by analysing the responses to questions 2–5, to trace a coherent narrative for each individual of the moment, which connected why they considered it ‘special’, the effect and their response to it. This has also been observed in many educational settings, when the questions provide a series of ‘cues’ which elicit and structure a recollected account of the moment.
The questions asked people to recall a ‘special’ moment and their responses offer a narrative of that recollection. The recollection of past moments is clearly dependent on memory and the significance of the moment selected may simply lie in it remaining ‘memorable’. Two-thirds of the moments were triggered by external incidents such as meetings, conversations or life events (such as marital breakdown or retirement), with one-third stemming from internally generated ‘realizations’ or ideas. A moment may not have seemed to be significant at the time, but retrospective sense-making often triggers its memory, because it may have led to a significant outcome (Weick, 1995). Their actual experiences and feelings in the moment may have been different from those reported, and, as with any narrative research, their recollections are inevitably subject to such factors as selective recall, over-emphasis, bias, deletion or distortion rather than claiming to report with objective accuracy. There can be no ‘proof’ that the responses and actions they reported actually stemmed from the moment, other than their narrative attribution that this was the case, nor that decisions reported were made consciously at the time; as Banks and Isham (2009) concluded, the decision to act may have been made intuitively with conscious judgement being attributed subsequently. However they remained as powerful memories and in a number of the cases were recalled as ‘turning points’ in the lives of the respondents.

For example, this is an instance of a recollection of opportunity recognition by a person who subsequently became an entrepreneur.

**Q2.** Think back to a ‘special’ or significant moment in your experience of entrepreneurial activity. Can you describe what happened in that moment?

‘I was employed at the time and was asked by an old friend who was self-employed to help him out with a conference. At the time I declined, I felt that it would put my employed position at risk.’

**Q3.** What made that moment ‘special’ or memorable for you?

‘That I was being asked to do something that I could be paid for as a self-employed person, that I had skills that organizations wanted.’

**Q4.** How did the moment affect you? How did it make you feel?

‘Because I declined the offer I regretted that for about 6 months and thought that the opportunity could have been a break for me to become self-employed.’

**Q5.** What did you do as a result? Describe what actions it led you to take.

‘I decided that I should look at moving to a self-employed status.’

This example illustrates a more general pattern of delayed responses; that whilst there was a realization at the time and an instant response not to act on an opportunity, subsequent reflection led to an action deferred for some time after the event itself. This accords with the view from Kollmann and Kuckertz (2006), that confidence may be a differentiator between entrepreneurs who act immediately on perceived opportunities and those who take deferred action.

A number of the stories related to the decision to take entrepreneurial action, often through a social connection, such as this one, which again describes an elapse of time between the moment of connection and action.

**Q2.** ‘The first time I met my business partner; on the first year of our undergraduate degree.’

**Q3.** ‘We were sitting in a marketing lecture commenting on how bored we were, we started talking about computers (a shared interest) and we just clicked, after that we decided to skip university for the rest of the day and went to the pub.’

**Q4.** ‘I felt great, the start of a new friendship, we were just so comfortable and shared so many interests.’

**Q5.** ‘After a few months we started talking about business and the opportunities that would eventually lead to us starting our first company.’

This example is a ‘classic’ case of creativity:

**Q2.** ‘It was a chance ‘off the cuff’ remark, that led to a business idea.’

**Q3.** ‘The fact that it was so simple, so by chance, yet seemed so obvious when later developed.’

**Q4.** ‘It was like “eureka” it was very uplifting.

**Q5.** ‘We brainstormed further and this led to our developing the business idea.’

Other examples were of incidents outside working life but which impinged heavily upon it. This example omits the question fields to show the narrative flow.

‘I was told by a consultant that medical tests showed I had only a week to live. I walked away shocked and went to see my GP down the road. He could not understand this and called the consultant. It turned out that my results had been mixed up with those for someone else with the same surname and initials. My response was obviously relief and some annoyance. It made me realize that every day after that was special, it was the rest of my life. So my attitude
towards life and work has changed completely, I realized that we have a limited time and it’s important to live each day in the best way you can because it could be your last.’

Educators and business advisors provided several examples of significant moments recounted by learners or clients, such as this one.

‘At the end of one of my courses a student made the most extraordinary announcement that she had clinched a huge deal. The moment was special, because she was such a quiet student, who was very nervous about risk, and I was worried she would not go on to achieve very much. It really made me feel really shocked, in a good way, as she related her success to key learning points in the course. I have since invited this student back to give three guest lectures.’

This accords with the critical moments described by Giordano (2010), in which the educator has no inkling of the significance of the effects of their teaching or other interactions with learners, whose learning and potential may exceed our expectations of them.

Question 4 aimed to elicit recollections of emotional responses and feelings generated from the moment. The language used is rich and, whilst diverse, there are patterns within the terms people used, although for the reasons already given these are not significant in relation to the types of moments, nor the roles of respondents. Table 2 shows the language used to describe emotional responses, with brackets showing the numbers of occasions on which these terms were used. Thirty-eight examples of positive language and 17 of negative language suggest that the moments recalled were seen overall as emotionally positive experiences, at least in recollection. Where the terms used formed a coherent string, this is cited.

In some cases, both positive and negative terms were used in the same response, suggesting the complexity of ‘mixed emotions’ often experienced in new situations, such as this one:

‘Fearful, I had that horrible sinking feeling. I was excited, buzzing with new ideas.’

The results presented in the table suggest that emotional meaning is significant, both in a moment remaining memorable, and in the use of emotional language to describe it, which often show ‘mixed feelings’. Rational language is used in the responses, but to a notably lesser extent than emotional discourse. The use of emotion in making sense of the moment, both at the time and subsequently, is consistent with the conclusions of Izard (2009) and Lewis (2004). There is increasing interest in the role of emotion in entrepreneurial learning and education, but surprisingly little is yet published, although Damasio (2012), and previously James (1884) have proposed the contributions of emotion in consciousness and the construction of ‘the self’. The role of emotion in responses and recollections of the moment is clearly significant and requires further investigation.

It would be wrong to ascribe too much significance to what was intended to be a small and exploratory study, but it reinforces the notion that significant moments can be recalled and described through narratives in response to open questions and that these narratives can be usefully analysed and compared to gain understanding of these reported experiences, in the context of entrepreneurship and learning. The next section adds to this through recollections from business owner–managers.

Table 2. Language expressing emotional effects of momentary realizations.

<table>
<thead>
<tr>
<th>Positive emotional language</th>
<th>Negative emotional language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident (7)</td>
<td>Exhausted (2)</td>
</tr>
<tr>
<td>Excited (3), extremely excited</td>
<td>Shocked (2)</td>
</tr>
<tr>
<td>Sense of achievement (2)</td>
<td>Bored (2)</td>
</tr>
<tr>
<td>Enthusiastic (2)</td>
<td>Lowest of low points</td>
</tr>
<tr>
<td>A lot of happiness</td>
<td>Upset</td>
</tr>
<tr>
<td>Trust</td>
<td>Angry</td>
</tr>
<tr>
<td>Comfortable</td>
<td>Worried</td>
</tr>
<tr>
<td>Relaxed</td>
<td>Concerned</td>
</tr>
<tr>
<td>Uplifting</td>
<td>Uncomfortable</td>
</tr>
<tr>
<td>Just like humour</td>
<td>Regret</td>
</tr>
<tr>
<td>Empowered</td>
<td>Bewildered</td>
</tr>
<tr>
<td>Satisfying</td>
<td>Fearful, horrible sinking feeling</td>
</tr>
<tr>
<td>Felt drive and determination to succeed</td>
<td>Humbled</td>
</tr>
<tr>
<td>Elated, proud, contented</td>
<td>Switched off and shuddered</td>
</tr>
<tr>
<td>Buzzing with ideas</td>
<td></td>
</tr>
<tr>
<td>Love</td>
<td></td>
</tr>
<tr>
<td>Respect</td>
<td></td>
</tr>
<tr>
<td>Admiration</td>
<td></td>
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<tr>
<td>Self-assured</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td></td>
</tr>
<tr>
<td>Enlightened, lifted and motivated</td>
<td></td>
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<tr>
<td>Very pleased</td>
<td></td>
</tr>
<tr>
<td>Felt great</td>
<td></td>
</tr>
<tr>
<td>Very surprised</td>
<td></td>
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</table>

Entrepreneurial moments in an owner–manager development programme

With the aim of furthering understanding of the role of entrepreneurial moments in an educational perspective,
a short session on ‘special moments’ was included in the ‘Business Inspiration’ programme for small business innovation leadership which was run by Lincoln Business School in 2010 for 50 local businesses aiming to recover from the recession. This made most participants aware of the concept which formed part of their learning experience and may have heightened their recollections of moments and the researchers’ interest in the topic. The following extracts from evaluation interviews are drawn from an independent evaluation (Rae et al., 2012). Participants were asked if they could recall any ‘special moments’ from the programme and, if so, what these were. The results are shown in Table 3, selected from the 2012 study (ibid).

Understanding the financial side of their business and being able to identify their breakeven point was mentioned by four:

‘The financial side was an eye-opener, it led me to ask to see the accounts.’

Simply taking time out of the business and being with other business owner–managers were considered special moments by three respectively. One – somewhat imprecisely – said:

‘All of it [was a special moment]. I thoroughly enjoyed it and got a hell of a lot out of it. The strong thing is the diversity. . .the networking opportunities were fantastic.’

Other moments that were mentioned included understanding different ways to grow, refocus and develop a new area of business. One commented:

‘It gave me a total change of mindset, and made me realize that growth isn’t just growth of turnover but also new products.’

This reinforces the concept of moments of insight in entrepreneurial education. The respondents’ recollections of these moments relates the value of the learning they gained in specific instances, interactions and content. Awareness of the significance of moments may well be helpful to learners in recalling and using learning in their business at the time and subsequently. It may also be helpful to educators in designing and evaluating programmes in which learners can derive knowledge and make a difference to running their businesses. Rae (2007) proposed five themes for owner–manager engagement in learning: to be accepted and effective, it should be relational; relevant; authentic; useful; and produce and share new learning. These represent practice-based criteria which are often interpreted in the moment and subsequently by learners as principles for evaluating and applying their learning.

Since such learning is as much relational as content orientated, tutor or peer interactions are significant contributors to ‘special moments’. Educators may usefully intend a programme or session to include highlights or memorable instances, but there is no guarantee that these will actually be those which individual learners recall as the most valuable; as Giordano (2010) concludes, serendipity means that even casual asides may bring transformational meaning for learners. Recall is a selective process and respondents cited only one or two memorable moments which excluded other less memorable instances.

<table>
<thead>
<tr>
<th>Table 3. ‘Special moments’ in the Business Inspiration programme.</th>
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<tbody>
<tr>
<td><strong>Special moment</strong></td>
</tr>
<tr>
<td>Knowing how to reach customers</td>
</tr>
<tr>
<td>Becoming more confident</td>
</tr>
<tr>
<td>Understanding finance and breakeven points</td>
</tr>
<tr>
<td>Understanding search engine optimization</td>
</tr>
<tr>
<td>Being with other interesting businesses</td>
</tr>
<tr>
<td>Taking time away from the business</td>
</tr>
<tr>
<td>Enthusiasm of the tutors/project team</td>
</tr>
<tr>
<td>Understanding different ways to grow the business</td>
</tr>
<tr>
<td>Refocusing the business</td>
</tr>
<tr>
<td>Developing a new area of business</td>
</tr>
<tr>
<td>Understanding the need to sell better</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Lots of special moments</strong></td>
</tr>
<tr>
<td><strong>No special moments</strong></td>
</tr>
</tbody>
</table>

*Source: Rae et al, 2012*
Conceptualizing a momentary perspective in entrepreneurship

This section proposes a conceptual framework for a momentary perspective in entrepreneurial learning and creativity. This is based on synthesizing aspects of the prior literature, combined with insights gained from the fieldwork, developed using observational thinking and inductive reasoning. These insights have also been developed and tested through interactive workshops with educators and entrepreneurs, through which a range of propositions, challenges, adaptations and re-conceptualizations occurred. Conceptualizations such as these can be no more than propositional, but are intended to assist educators and researchers to develop further the use of momentary perspectives in entrepreneurial and related learning.

A momentary perspective is a way of understanding the human experience of ‘what is going on?’ in the moment. A single moment can be interpreted through multiple ‘lenses’ of knowing, such as those previously described as philosophical, narrative, educational and cognitive. This section develops a framework for a momentary perspective which can be applied in entrepreneurial creativity and learning, and possibly more generally. Figure 1 proposes a general framework which illustrates in a very simplified way the three essential and interdependent processes of the awareness of ‘being in the moment’.

In each momentary experience, we are constantly perceiving, generating meaning, both consciously and unconsciously, and acting in response, through speech and behaviour, in interconnected ways. This occurs both consciously, with selective attention being paid to a small proportion of the sensory data being perceived in the mental ‘foreground’; and unconsciously, with awareness of a much wider range of experiential data taking place as ‘background’. The subconscious is ‘in control’ of human behaviours to a far greater extent than we might think; the subconscious governs most momentary behaviours, whilst the conscious mind selects ‘special’ moments from memory in retrospect. This conceptualizes, in a simplistic way, the complex interactions which occur constantly in our experience of every moment.

The moment is an internal realization, which may be triggered by an external incident. In the moment, perceptual processes operate both consciously and unconsciously (otherwise described as ‘subconsciously’), with unconscious processing being more rapid (Banks and Isham, 2009). The perceptions generate a response, which may be verbal or physical action, which is elicited at the time and hence likely to be recalled by the person as their response ‘in the moment’. An intuitive response arises from tacit knowledge not requiring conscious thought, or conditioned by experience or training, whilst an instinctive response results from core animal behaviour or personality. A response often expresses emotion. A conscious response, the result of ‘thinking about’ how to respond, will be slower, occurring subsequent to the moment. At any time following the moment, there may be a conscious reflection on the meaning (new knowledge) produced from the moment.

**Figure 1.** Momentary perspective of ‘being’ in the moment.
In a creative moment, an idea, inspiration or insight occurs in conscious thought; in terms of Wallas (1926) moving from unconscious preparation and incubation to illumination (the ‘light bulb moment’). This may be followed by a reaction of emotion (such as joy or elation), action (moving to immediately write, draw or record the idea) and by conscious thinking on its implications: practicality (‘will it work?’; ‘what are its applications?’; and so on) or, as Wallas described, verification. The moment of revelation may be remembered by the person in its spatial or social context or location; just as Archimedes’ mythical ‘eureka’ moment is commonly remembered for the location of its occurrence – in the bathtub. Again, conscious reflections may continue to flow long after the creative moment itself.

Awareness of time is an important aspect in the lived experience in the moment because it connects with experiences of past recollections and anticipation of future possibilities. On a construct of narrative (also known as Kairotic) time, we subjectively and selectively perceive what is significant, rather than on an objective construct of chronological time, of which we may also be aware. Figure 2 suggests how meaning is generated in the moment within a perspective of narrative time.

Additional factors can be added to this diagram, but result in over-complexity. Sensory perceiving is experienced in the physical and social context of the environment and interactions are experienced through interpersonal dynamics of talk and non-verbal behaviour. These stimulate conscious and unconscious perceptions and produce responses which may anticipate events in which instinctive and intuitive perceiving are more rapid than conscious thought. Emotional states arise, with the production of ‘feelings’ such as happiness, sadness, companionship or alienation, joyful or fearful anticipation. Meanings of creative ideas, new learning, insights and intentions are generated as neural connections are made between experiential memory, unconscious and prospective imagination. Intentions may be decided consciously or emerge from unconscious into conscious awareness. These are all influenced and mediated by factors such as emotions, social interactions and awareness of situatedness. Behaviours result from these responses: verbally as conversation; and physical actions as both purposive acts and ‘body language’.

An outcome of the moment is the decision of whether, and if so how, to act on it. The term ‘decision’ does not necessarily imply considered, logical or rational judgement, however, since ‘spur of the moment’, impulsive, intuitive and conditioned responses may well precede judgement: the intention may be unconsciously rather than consciously chosen and the moment of decision subsequently inferred from it. Such a decision may arise from a complex set of underlying factors and cognitive structures such as personality, sense of identity, emotion, beliefs and moral sense of ‘what is right’, as much as rational judgement. Some responses will be conditioned by experience and learned behaviour – sometimes crudely termed the ‘no-brainer’.

**Implications and applications for entrepreneurial learning and creativity**

It is clear that many types of moments occur in the entrepreneurial experience, although this article has concentrated on moments of learning and creativity. A quality of the moment is that human responses are often ‘authentic’, intuitive and characteristic of how people...
deal with moments in life more generally, rather than deliberate and planned, because there is limited control over the instantaneous response; however, learning and adaptation can quickly take place. Listed below are common types of entrepreneurial moments, drawn from the fieldwork as well as more general experiences. This is illustrative rather than comprehensive, but provides examples of commonly experienced moments in entrepreneurial life, resulting from both externally experienced events and from internal realizations.

- Creativity – inspirational moment of association forming a new idea.
- Innovation – recognition of how an idea can be applied to a practical situation.
- Problem – a disadvantage or setback which can or must be addressed.
- Opportunity – recognition of a potential or actual position of advantage.
- Encounter – social interaction, meeting or social connection.
- Insight – gaining a realization of new knowledge.
- Intuition – ‘knowing’ at a subconscious or ‘gut’ level.
- Judgement – making a decision or choice.
- Resolution – intention to act.

It is proposed that ‘momentary perspectives’ can help in making sense and enhancing awareness of entrepreneurial behaviours, especially creativity and learning. This is not being advanced as a unifying and general theory of entrepreneurship in the manner that effectuation theory, for example, has been (Sarasvathy, 2001). Rather, it is positioned within the existing fields of entrepreneurial learning and creativity, where it is evident that such terms as moments, incidents, events and inspirations are used in everyday discourse but that ways of conceptualizing and using them need to be developed, both in education and in practice.

It is less important that the framework proposed, of ‘being in the moment’, perceiving, generating meaning, and acting, is necessarily ‘correct’ or scientifically provable. It draws on logic offered by insights from pragmatic philosophy and recent cognitive studies, combined with limited empirical research and experience in working with entrepreneurs and learners. This is an emerging area in which propositional frameworks, which suggest how experience may be interpreted and can be used by educators and practitioners to heighten their awareness and understanding of momentary perspectives, can play a useful role alongside more definitive frameworks being developed through in-depth research. This is a pragmatic stance, in which the value of a concept is in the practical use which can be made of it, with an implicit acceptance that it may be superseded by later work. This approach is similar to that taken in the early days of work on entrepreneurial learning in which the notions of narratives (Pitt, 1998), learning episodes (Rae and Carswell, 2000) and critical incidents (Cope and Watts, 2000) were first connected and to which this article has returned.

In relation to education and learning, it is helpful for educators to be aware of the significance of moments in the learning process. As Giordano demonstrated and this study reinforces, we cannot know what other people’s critical moments have been unless they tell us; they are rare and personal. But as educators we may be able to create more of them. Opening a workshop for enterprise educators I posed the unscripted question, ‘do we take risks as educators, or do we play it safe?’. I had not planned to do this, it was intentionally slightly risky. Yet asking the question felt intuitively right in enabling me to engage with the participants in that moment, and whose immediate responses and interactions demonstrated the learning value through the conversation which then took place exploring the tensions they had encountered between risk-taking, creativity and control in education.

In such ways, educators can be confident and creative in using their momentary insights, ideas and contextual experiences in their teaching. It may seem superfluous to propose this when excellent teachers have always done so, yet a generation of an ethos of managerial control, quality assurance and ‘proceduralization’ of education has done much to suppress educational creativity (Draycott and Rae, 2011). ‘Seizing the moment’ is a legitimate tactic in opportunistic education which enlivens and engages, rather than an educational strategy. However, the educator can focus on and use seminal ‘teaching moments’ from those which arise in the wider environment and use these as ‘instant cases’; recent history provides many of these. Such events can provide fertile scenarios for problems, innovations and opportunities to be addressed in the educational process and to demonstrate the relevance of entrepreneurial thinking.

It has also proved useful on many occasions to share the ideas on entrepreneurial moments with learners, and to prompt them to elicit significant moments from their experiences, as described in questions 2–5 of the online survey. This can be a powerful way of recalling and sharing experiences in order to form extemporized learning narratives. Learners can also recall and reflect on significant moments in producing learning narratives and career plans in more formal, assessable ways; this is the subject of ongoing research.

It is hoped that the momentary perspective framework may be of value in contributing to the
development of entrepreneurship by educators, learners and practitioners. The idea of a momentary perspective is not new, but rather underdeveloped, and offers a way of thinking and understanding which people can understand, adapt and use intuitively for themselves. For example, recognizing the interconnections between perceiving, meaning and acting can be helpful in encouraging reflection and self-awareness of how people respond momentarily. If their instinctive response to opportunities is to ‘pass’ and defer engagement, in the way that a reluctant football team member avoids the ball as always being associated with trouble, they need to be aware of their instincts and able to reflect on why they respond as such and the alternative, counter-intuitive options they might develop. The powerful roles of unconscious perception and meaning, through instinct, emotion and intuition, should be appreciated and not discounted in a rationally-centred educational system, so that individuals can usefully become more aware of both the value and limitations of knowing which is produced in these ways. Intuitive judgements are often the products of extensive unconscious thought and experience through the phronetic knowledge of practical and social wisdom (Baumard, 1999).

Emotional engagement is critical, but may be undervalued, in effective learning, momentary response, decision-making and recollection. Entrepreneurship has an emotional dimension and the use of a momentary perspective can contribute to understanding, working with and applying emotional energy, intelligence and creativity as part of the learning process.

As suggested here, the acceleration of digital technologies and associated business innovation are making momentary perception and judgement increasingly important in entrepreneurship. Emerging technologies rapidly become normal tools for business and learning. Through using proprietary online tools, teams of entrepreneurship students can develop new business models and trial these through both virtual simulation and real applications, gaining swift feedback on what does or does not work and either refining or scrapping their iterative models. In such ways, momentary skills in entrepreneurial innovation, decision-making and trading can be practised and confidence developed. But, as the modes and media of entrepreneurial commerce continue to evolve rapidly, it can be anticipated that the ‘micro-skills’ of momentary entrepreneurship will become both more important and, in order to understand them, more intensively studied. The progress which is outlined in neural, cognitive and psychological research has significant promise in contributing to their understanding.

The insights offered in this article are both propositional and imperfect; they aim to draw together reflections, teaching, conversations and educational research which have occurred in a live exploration over several years to offer a momentary perspective for entrepreneurial learning. Such learning can be viewed as being formed from a stream of momentary experiences, of perceiving, meaning-creation and action, occurring in a time dimension between past recollection and future anticipation. However, as Polkinghorne (1988) wisely advised, we should recognize the development of such learning as a narrative over time and as the product of innumerable moments, rather than over-emphasizing the significance of any single ‘instantaneous now’.

‘I’ve learned to see opportunities in the moment, and evaluate them. I just know instinctively which ones are worth exploring and which are not.’ (Paul, online entrepreneur)

References


Contribution of momentary perspectives to entrepreneurial learning and creativity


