

Understanding the entrepreneurial process – a paradoxical perspective

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This paper aims to build a conceptualisation of the entrepreneurial process that addresses the seeming contradictions or paradoxes in entrepreneurship. It covers the concept of paradox in management theory before establishing a link between paradox and the understanding of entrepreneurial phenomena. The paper argues that a paradoxical perspective is an especially appropriate one to analyse the key concepts of creativity and innovation in the entrepreneurial process.

Key words: Paradox; Entrepreneurial process, Creativity, Innovation

Introduction

Paradox is increasingly being used in management research. Lewis (2000) attributes this intensification of paradoxes and dilemmas to a trend of increasing technological change, global competition and workforce diversity. Davis, Maranville, & Obloj (1997), in a literature review, found the term used in over 300 major publications. Managers, for example, are asked to increase efficiency and foster creativity, build individualistic teams, and think globally while acting locally. The intensification has led to some claiming that “It’s a paradox,” is rapidly becoming the management cliché of our time - overused and underspecified (Handy, 1994).

The word ‘entrepreneur’ derives from the French words *entre*, meaning ‘between’, and *prendre*, meaning ‘to take’ i.e. an entrepreneur can be seen as a ‘between-taker’. In terms of entrepreneurship, paradox is useful in explaining the combination of ideas which were initially remote from each other and which the entrepreneur (the ‘between-taker’) combines to create value. In the entrepreneurial process, resolving paradoxes can take the form of synthesising seemingly opposing ideas from different ‘matrices of thought’ (Koestler, 1964), different factors of production (Say, 1821), different parties with different interests (Cantillon, 2001), and concepts from different scientific and academic disciplines (Toffler, 1990). These processes may be complex and diverse and even chaotic but using the concepts embedded in paradox, it is possible to bring innovators into the entrepreneurial process being described and therefore address one of the most ‘confounding aspects’ of understanding the entrepreneurial process (Timmons, 1989).

The paper will firstly discuss the definition of and the thinking process behind understanding paradoxes. It then establishes a link between paradox and entrepreneurship theory by arguing that a paradoxical perspective is an appropriate one to analyse phenomena in the entrepreneurial process. In so doing, it attempts to build a conceptualisation of the entrepreneurial process that addresses the seeming contradictions or paradoxes in entrepreneurship.

Defining and Understanding Paradox

Defining Paradox

However, what exactly does *paradox* mean? The Cambridge Advanced Learner's dictionary defines a *paradox* (which comes from the Greek words *para* meaning "beyond" and *doxa* meaning "opinion"), as "a situation or statement which seems impossible or is difficult to understand because it contains two opposite facts or characteristics."¹ Other common terms that are used are "dilemmas", "polarities" and "dualisms" (Hampden-Turner & Tan, 2002; Handy, 1994; Lewis, 2000). What the terms do point towards is there is a common need to describe conflicting demands, opposing perspectives, or seemingly illogical findings (McKenzie, 1996).

The "Thinking" Behind Paradox

Yet, labelling paradox does not necessarily foster understanding. Bouchikhi (1998) claims that while organization researchers continue to unveil paradoxes, few explore them at great depths. Much of this can be due to the nature of the use of the terms in a "lay sense" (Poole & Van de Ven, 1989). In order to explore paradox at greater depths, there is a need to examine the thinking processes surrounding the theory. In particular, there are three thinking modes at work: (1) "either-or" or "Western" thinking, (2) "both/and" or "and-and" thinking, and (3) "through-through" or "parallel" thinking.

The "Contrarian" Approach

In order to help understand these three modes, a graphical representation is used. There have been different means chosen to depict the bipolar nature of paradoxes ranging from ropes (Trompenaars & Hampden-Turner, 2001), to weighing scales (McKenzie, 1996), to a set of bull horns (Hampden-Turner, 1989). As the terms paradox and dilemma can be used interchangeably (Handy, 1994), I have chosen to use bull horns as a pictorial representation by following the ancient idiom of being "caught between the horns of a dilemma". These have been transposed to a dual-axes diagram (which is a set of horns tilted at a 45 degree angle) in figure 1 below with various points in different colours that will be elaborated on later.

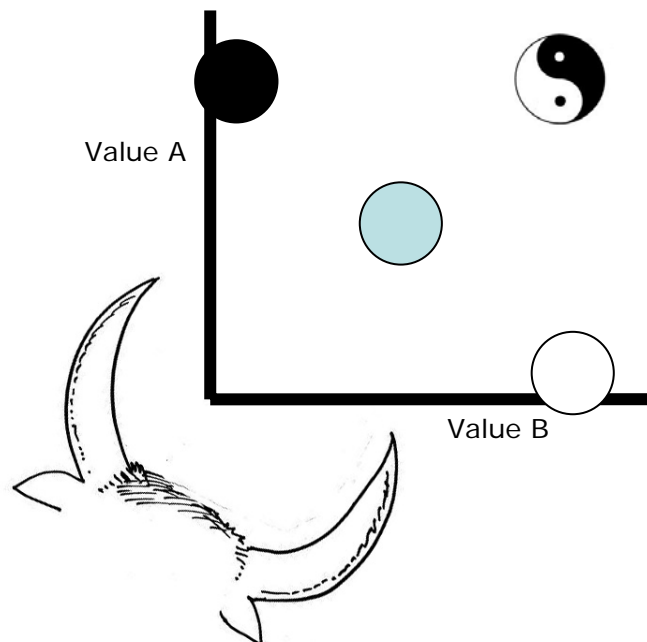


Figure 1 – The different modes of response to paradoxes

¹ <http://dictionary.cambridge.org/define.asp?key=57464&dict=CALD>

The traditional or “contrarian” approach to thinking is founded on formal conventional Aristotelian logic (Barrett, 1998). Aristotle’s law of non-contradiction states that a thing cannot be itself (X) and something else (Not-X) at the same time. It gives rise to “either/or thinking” (Trompenaars & Woolliams, 2003), i.e. one has to select either X or Not-X. Since something that is either X or Not-X is not both or something in-between, there is no means of unifying these apparent contradictory propositions. Aristotle’s Law of the Excluded Middle denies that there is something in the middle, and polarisation becomes the norm (Hampden-Turner, 1981). Instead of the rigidity of one fixed idea, there is mobility but the mobility only exists between two defined poles (De Bono, 1982). In figure 1, this is depicted by either taking the black or white circle position. There are no other options.

However, this “either/or” approach is limited. With paradox, this results in an impasse that has to be endured and sustained and not “resolved” and leaders and management must choose between two opposite poles. For example, Peters (1992) argues that success comes from both adaptivity and “deep grooves” (i.e. from exploration and exploitation), which are irreconcilable. In the example on nominal data, it would be meaningless to ask for the mean or the standard deviation for sex/race/ethnicity. Westenholtz (1999) observes that the “either/or” approach makes it difficult to deal with issues that are ambiguous and may be “more or less something”. The problem arises because the Aristotelian logic is applied not only to the material world, but also to the mental world. The resultant thinking is that once entrapped in an irresolvable paradox, then action of one sort or another is predetermined and may be unsolvable. One can only try to “manage” as best as possible, the problems arising from the paradox (Johnson, 1996). In the context of creativity and innovation, the either/or approach does not provide a means to unify seemingly contradictory propositions and De Bono (1994:29) observes that this method of thinking

“makes it very difficult (for) the emergence of new ideas. This is especially so when a new idea needs to be judged within a new paradigm not within the old paradigm which, by definition, it does not fit.”

This “either/or” perspective has also been criticised in management theory for its very strong advocacy of one “right” way of management (Clegg, Cunha, & Cunha, 2002). This is because it impossible to hold intermediate positions. The danger is that virtues and faults become fixed at extreme ends of the scale because that makes decision-making easier (De Bono, 1982). By spotlighting one position on the either/or axis, the other position is likely to impact negatively on the result (Hampden-Turner, 1990).

The “Both/And” Approach

A second form of thinking is the “and-and” or “both/and” thinking (Burns & Stalker, 1961). This occurs when two seemingly contradictory, or even mutually exclusive, factors appear to be true at the same time (Poole & Van de Ven, 1989; Quinn & Cameron, 1988). As opposed to “either/or” thinking, this thinking sees one factor is true and a contradictory factor is simultaneously true (Lewis, 2000). There are two responses normally associated with this. The first, which occurs mainly in resource-rich conditions, is to do both things as much as possible at the same time, with the intention of reaping the “best of both worlds” (De Wit & Meyer, 2004). The second, which occurs in resource-constrained environments, and hence more likely to apply in entrepreneurial settings, is to go for a trade-off or a compromise.

In reality, the choice will be contingent and will involve a mix of both approaches i.e. depending on the situation and resources available, there will be a mix between trade-offs and “best of both worlds” strategies for different issues concerning the venture (Clegg, 2002). An example of this which is relevant to entrepreneurship can be found in the family-run business genre where Woolliams & Hampden-Turner (2001:380) argue that the “lifestyle business” is “a compromise between the competing demands of the family and the organisation serving as a market”. Clegg *et al.* (2002), following Burns & Stalker (1961), claim that this is the most accepted strategy for dealing with paradox because it adopts a contingency approach to management. The two opposite poles of a paradox are seen as extremes of a continuum. Entrepreneurs pick and choose bits from each pole but move along the continuum to achieve a mix of plans and resources that will fit the relevant internal and external forces exerting pressure on new ventures. Based on figure 1, this sees a grey circle, the result of mixing black and white circles.

The “Through-Through” Approach

A third approach is that of “through-through” or “parallel” thinking. Such thinking is different from the former two approaches as it “is beyond *either/or* and even *and/and* thinking. It synthesizes seemingly opposed values into coherence.” (Trompenaars & Hampden-Turner, 2001:11) “Through-through” thinking goes beyond trade-off and compromise by unifying the opposites within the paradox. Hampden-Turner (1990) observes that value creation lies in the capacity of acknowledging that paradoxes emerge from opposing claims and of synthesising both “horns” in a resolution that includes all values in contention. This process involves sub-processes of “bridging” or “integrating” and “generating” or “transcending” the paradox (De Wit & Meyer, 2004:17). In particular competing representations of paradox can be held in conjunction by transcending our conceptual limitations (Eisenhardt, 2000; Poole & Van de Ven, 1989). Barrett (1998) sees this as a combination of “Janusian thinking”, which identifies opposites, reconciles them, and ingeniously juxtaposes them to produce innovative new combinations, with “Hegelian thinking”, which integrates opposites so intimately that the distinctions between them vanish in a burst of new discovery. Paradoxes are therefore the consequences of our conceptual limitations. In figure 1, this is depicted by the “*Yin-Yang*” pictogram.

The Yin-Yang pictogram is used based on the Eastern conceptualisation of “Qi” that is the dynamic interaction of two antagonistic, yet complimentary energy forces. These forces are called *Yin* and *Yang*, each of which includes a portion of the other. *Yin*, the feminine, is associated with cold, dark, passive, and that which is deep or hidden. In contrast, *Yang*, the masculine, represents heat, light, active, and that which is on the surface. However, since nothing in nature is purely black or purely white, the symbol includes a small black spot in the white swirl, and a corresponding white spot in the black swirl. Ultimately, the *Yin* and *Yang* can symbolize any two opposing forces in nature. *Yin* and *Yang* are constantly interacting and changing, and one never exists in isolation from the other. As Capra (1983:97) comments:

“This diagram is a symmetric arrangement of the dark *yin* and the bright *yang*, but the symmetry is not static. It is a rotational symmetry suggesting very forcefully, a continuous cyclic movement ... The two dots in the diagram symbolize the idea that each time one of the two forces reaches its extreme, it contains in itself the seed of its opposite.”

The most significant feature is the manner in which each force or value rises gradually to a peak and then “gives way” to its opposite (complementary) force or value.

The concept of values is an important one allowing for this third approach. If one adopts the earlier Aristotelian mode of thinking, values are seen as tangible and material things and as such cannot be reconciled. Aristotle sees values in four perspectives: material, formal, efficient and formal and a material value is “that out of which a thing comes to be and which persists” (De Rond & Thiétart, 2004:34) e.g. the bronze of a statue. A formal value is “a statement of essence”, e.g. the statue of Cupid. An efficient value comprises the collective inputs into the phenomenon, e.g. the land, labour, capital that went in the building of the statue. By seeing values as things, formal rationality cannot deal with the conflicts between different values (Hampden-Turner, 1990). In contrast, Trompenaars & Hampden-Turner (2001:3) argue that

“Values are not things, as one cannot acquire courage, hope or innocence ... values are differences, and any difference posits a continuum with two contrasting ends.”

De Bono (1994:169) agrees with this position, claiming that for “parallel thinking”, values should not be seen as “fixed absolutes”. Instead,

“Values can be changed ... Values can be enhanced ... Values are not always obvious ... In the end, concepts are only ways of delivering “value”.”

By seeing values as differences, this allows for the “reconciliation” of paradoxes (Hampden-Turner & Trompenaars, 2000). It is argued further below that reconciling paradoxes is a dynamic competency that entrepreneurs bring with them to the new venture creation process.

Paradox and Entrepreneurship – A Synthesis

It is argued here that paradox can offer an important contribution to entrepreneurship research as it can serve as a lens to interpret phenomena in the entrepreneurial process.

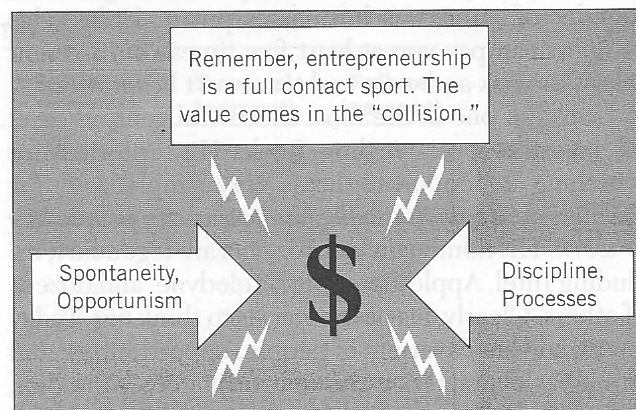
Entrepreneurship = Paradoxes and Dilemmas?

For a paradoxical perspective to be accepted as an appropriate approach to understanding entrepreneurship, paradoxes and dilemmas must be accepted as part of entrepreneurship. Various publications have examined paradox in other aspects of management research (Hampden-Turner & Trompenaars, 2000; Handy, 1994; Hatch, 1993; Kets de Vries, 1995; Koot, Sabelis, & Ybema, 1996; Vince & Broussine, 1996). These depict individuals, groups, and organizations as inherently paradoxical, embroiled in tensions and reinforcing cycles at their very core.

However, what is strangely missing is research on paradoxes in entrepreneurship. This is a major gap in entrepreneurship research. One of the reasons could be that there are major difficulties in trying to “represent and materialise dialectics, (diz)organisation and contradiction” (Clegg, 2002:1). This is even more peculiar in that the process of venture growth in an interactive manner throws up many paradoxes. As Timmons & Spinelli (2004:50) remark:

“One of the most confounding aspects of the entrepreneurial process is its contradictions. Because of its highly dynamic, fluid, ambiguous, and chaotic character, its constant changes frequently pose paradoxes.”

They argue further that because entrepreneurship is untidy, non-linear, inconsistent and unpredictable, and particularly because it is chaotic and contradictory, it is from the “collisions” inherent in these paradoxes that value is created. and is illustrated in figure 2 below. They postulate that effective entrepreneurship is the result of coping and building skills that create predictability out of the ambiguity, chaos, and uncertainty that the paradoxes create.



Source: Timmons *et al.* (2004)

Figure 2 – Entrepreneurship as Collisions of Dilemmas

Despite this insight into entrepreneurship as paradoxes, Timmons & Spinelli do not develop their concept or argument further. They also do not develop any tools in which to identify and map these paradoxes and do not show how these paradoxes “collide” and just note that “an important entrepreneurial talent (is) about the company building process, including the strategic and management implications of striving to achieve balance and the inevitable fragility of the process” (Timmons & Spinelli, 2004:59). The term “collision” also suggests that this process is a random one, much like atoms and molecules randomly hitting each other through a process of Brownian motion or like two vehicles that crash together in an unavoidable accident. In order to address this gap, a conceptualisation of the entrepreneurial process based paradox is developed below.

Paradox and Dynamic Non-linear Entrepreneurial Phenomena

In contrast to the randomness of colliding molecules, the understanding of paradox suggests that the process of resolution has a certain level of deliberateness especially when it comes to understanding complex dynamic phenomena (Hampden-Turner, 1990). Dynamic processes are central to a rich understanding of entrepreneurship:

“If we want to understand entrepreneurship, our research methodology must be able to handle nonlinear, unstable discontinuities.” (Bygrave & Hofer, 1991:28)

In line with this, analysis methods and tools that can capture and analyse these dynamics have increasingly become important cornerstones for advancing entrepreneurship research (Aldrich & Martinez, 2001; Davidsson, Low, & Wright, 2001). Researchers are also being encouraged to utilise techniques that can capture the subtleties of dynamic processes and events (McKelvey, 2004). Table 1 highlights the main argument why a paradoxical perspective is a technique applicable as an investigative approach for entrepreneurship.

Table 1 - The Entrepreneurial Process interpreted through a Paradoxical Perspective

1.	<i>Reconciling Paradox</i>	=	<i>Reconciliation of Differences/ Values</i>
2.	Entrepreneurship	=	Reconciliation of Differences/ Values in Innovation + Reconciliation of Differences/ Values in Creativity
3.	Innovation	=	Reconciliation of existing resources
4.	Creativity	=	Reconciliation of conscious/ subconscious thought processes + Reconciliation of Frames of Reference/ Thought Matrices

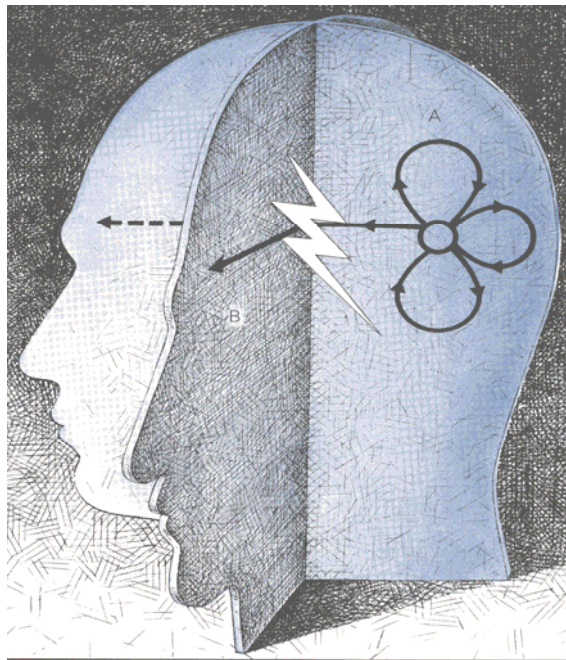
Starting from the bottom of the table and working upwards, creativity is an important aspect of entrepreneurship. Creativity is commonly seen as a *thinking process* that leads to the development of *novel* and *valuable* ideas (Amabile, 1996; Ford, 1996). Rothenberg (1979) notes that creativity has a “Janusian” structure is are able to deal with conflicting thoughts and paradoxes.

One approach to harnessing creativity is when there is a synthesis of both conscious and unconscious thought (Arieti, 1976). Traditionally creativity is a thinking process that is either conscious (Anderson, 1992; Rothenberg, 1979; Stacey, 1996) or unconscious (Gordon, 1993; Wallas, 1926). However, these can be reconciled to provide a stronger explanation of creative thinking. This can be illustrated in the example of the story of Archimedes as highlighted by Hampden-Turner (1981). Archimedes needed to discover whether a crown presented to the King of Syracuse was really pure gold. He knew its weight of gold per volume measure but could not estimate the volume of an irregular, ornamented crown. For many weeks, he was frustrated, circulating around the problem but reached an impasse because he was trapped in the conscious level of creative thinking. The knowledge as till then was limited to calculations based on regular shapes. One day in a state of relaxed attention, he took a bath and saw the water rise round his body. The solution came to Aristotle suddenly – the crown will displace a volume of water equal to its own – Eureka! What happened was that at the point of relaxation, the subconscious thought processes connected and synthesised with the conscious ones resulting in a creative solution. As Hampden-Turner (1981:100) observes:

“creative solutions tend to come to us when our attention is wandering casually and subconsciously among alternative frames, rather than consciously focussed on one.”

A second approach to creativity is based on the idea that creative action results when an individual combines two or more previously unrelated matrices of information. Koestler (1964:121) called this process “bisociation”, which he defined as “the sudden interlocking of two previously unrelated skills, or matrices of thought”. Consider one of Koestler's examples – Gutenberg's invention of the movable-type printing press by combining the techniques of the wine press and the seal. Here, Gutenberg had seen a wine press being operated, playing cards being stamped on paper by inked wooden blocks and a coin mint stamping the

emperor's image on hot metal. Gutenberg was able to "bisociate" the three very different matrices of thought as follows – take the pressing function from the wine press and turn the minting of coins into the moulding of movable typefaces which would leave its imprint on paper like playing cards. Note that wine, money and the Bible are very *diverse* yet *unified* into one printing press. Koestler gave two further examples of Darwin and Kepler. What is common is that although the ideas were revolutionary, their creations were mainly due to the bisociation of existing matrices of thought. Due to this, innovations like these are often written off as resulting from "ripe" social conditions, and revisionists take delight in noting that other innovators arrived at the same creations independently. However, the ripeness and self-evident nature of such innovations is only intuitive once the innovations have been discovered.



Source: Hampden-Turner (1981)

Figure 3 – Arthur Koestler's Act of Creation

Hampden-Turner (1981) illustrates Koestler's concept of "bisociative thinking" in Figure 3. Two planes of thought intersect. Instead of thoughts continuing on the same logical plane (dotted line), these collide as in humour, with a bisecting plane and bisociate, shooting off at a tangent. The circular patterns on the first plane show that the thinker was stuck, circling around the problem, until the new thought strikes like a lightning flash. He also speaks of the shock of recognition, old parts forming new wholes, and pulling back to take a new run, paradoxes and all.

Matrices may be combined in a flash of insight which interrupts a period of mental incubation; bisociation may also occur following a conscious and sequential process of logical reasoning and experimentation (Storr, 1972; Wallas, 1926). In either case, the bisociative thought process that leads to entrepreneurial action is dependent upon the existence of an appropriate stimulus, domain knowledge, and creativity skills (Amabile, 1996).

Innovation, takes creativity a step further as "creativity implemented". It is taking creative ideas and bringing them to life so that they can make an impact on people's lives, a further bisociation, and also change organisations that bring them into the world. While entrepreneurs are by nature creative, successful entrepreneurs need to go the next step and be innovative to develop, market and ultimately commercialise the product or service that he or she has created. Translated into innovation, bisociation sees the need to not only combine matrices of theoretical thought but also practical information that allows the entrepreneur to identify an opportunity and seize it through action.

Much of the attraction of entrepreneurship and innovation in the New Economy is that economic growth is advanced via new technology through a process of “creative destruction”. However, instead of “destruction”, Foster & Kaplan (2001) and Roberts, Brooks & Langer (2002) have observed that the bulk of modern post-World War II technological innovations (more than 90%) have occurred with novel combinations of existing ideas, technologies or disciplines and use examples in the new technology innovation areas of robotics and biomedicine areas to show these. This follows Kodoma (1991) who attributes Japanese success at achieving high-technology catch-up through a process “fusion” for example in “mechatronics” (through the combination of mechanical engineering and electronic engineering) and “opto-electronics” (through the combination of optics with electronics).

The most predominant view of this form of innovation in entrepreneurship is that developed by Schumpeter who defined the entrepreneur as someone who implements “new combinations of means of production”. This may be done through introducing new economic goods or products, introducing a new method of production or production processes, opening a new market, gaining a new source of raw materials or inputs (including finance); or changing the organisation of an individual organisation or an industry. Schumpeter argues that innovation cannot stop at just generating a new idea as an inventor might do but must include implementation of the new idea or activity.

Schumpeter’s view of entrepreneurship is paradoxical. He spoke of a “gale of creative destruction”. So is this “creative” or “destructive”? In reality, it is “both”. Schumpeter’s (1942) entrepreneur creates new activities and markets and so also “destroy” or supersede the old markets, hence his or her role in the economy is both creative and destructive. While Schumpeter focussed on the entrepreneur ‘doing’ things differently, his concepts can be used to understand entrepreneurship at the cognitive level. Innovation occurs between contrasting values and innovation is a way of reconciling remoteness with new associations and being diverse with supplying something useful and so unifying that diversity.

Conclusion and Further Research

The understanding of the paradoxical nature of entrepreneurship gives a new dynamic and integrative perspective of the entrepreneurial process. This paper argues that a conceptualisation of the entrepreneurship based on paradox facilitates the understanding of non-linear, dynamic processes. In particular, the concept of paradox or dilemma reconciliation is able to capture the creativity and innovation process.

Conceptualisation is but an initial step in theory building (Christensen, 2006). What needs to follow will be the development of more sophisticated constructs and models so that the concept can be further refined and built in an iterative process of theory building and theory testing. For example, an relatively under-researched area that paradox could throw more light on is that of the dynamics of failure and success or trial-and-error within the entrepreneurial process, effectively building on Timmons & Spinelli’s (2004) observation that paradoxically in order to succeed, one has very often first to experience failure.

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