

PARACOSMIC THINKING: A NECESSARY COMPONENT OF SUCCESSFUL ENTREPRENEURSHIP

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ABSTRACT

Research indicates a decline in adult and child creativity since 1990 in the United States. We examine a possible relationship between creative thinking and successful entrepreneurship in this paper. The link between paracosmic thinking and other factors in developing successful ventures is examined and a matrix model that we dub PE-EA of the construct is developed. We also develop a function that describes the entrepreneurial environment illustrated in our matrix. The concern expressed in this paper is that a decline in creativity scores will precede a subsequent decline in successful entrepreneurial ventures in the United States. We examine the possibility that increasing playing time and realism in video game play may preclude childhood paracosmic thinking and lower the creative capabilities of people who might have been inclined to generate ideas that could be transformed into successful ventures. We explain the need to incorporate creativity courses and activities that require creative thinking in business schools to help mitigate or even reverse some of the decline in creativity seen through testing.

INTRODUCTION

Kim (2011) discovered a disturbing trend; creativity scores of children and adults peaked in 1990 and have been declining since. We propose that creativity in the form of an ability to envision a paracosm is a necessary component of entrepreneurship and is vital to the development and sustainment of successful entrepreneurial business models. We further propose and develop a 2 x 2 matrix that illustrates the relationship between paracosm ideation and successful entrepreneurship. We discuss the implications of declining creativity scores to future entrepreneurship efforts and offer some suggestions for bringing creativity into business school classrooms.

LITERATURE REVIEW

A review of the entrepreneurship and small business literature reveals no evidence of a discussion or investigation of the role paracosmic thinking has in the entrepreneurial mind-set or of a connection between juvenile paracosmic thinking and subsequent entrepreneurial activity and success. However, the psychology and creativity literature contain articles that explore and refine the concept of paracosmic thinking as an ingredient in the development of creative activities in people. Root-Bernstein & Root-Bernstein (2006) found a positive connection between paracosmic thinking, or as they termed it world play, between the childhood lives of MacArthur Fellows and their subsequent adult creative lives. The link between creativity and entrepreneurship has been established by other scholars, i.e. (Audretsch & Belitski, 2013), (Campos, Rubio, Atondo, & Chorres, 2015), and (Daniel, Wennberg, & Berglund, 2016). Entrepreneurship is also discussed as a creative act by Amiable (1966) and Ward (2004). Root-

Bernstein & Root-Bernstein (2006) conclude the following: (1) world play, or paracosmic thinking, is more common than is thought and does appear to be prevalent in creative adult populations, (2) children participating in world play are, in reality, serving an apprenticeship in focus, discovery, persistence, synthesis, and modeling; all necessary for successful entrepreneurship, and (3) the act of world play provides exercises in problem solving that take place inside a self-consistent, alternate, modeled system. It does not matter how fantastical or realistic the world is. It is with the three points made by Root-Bernstein & Root-Bernstein (2006) that we develop the connection between world play and entrepreneurship.

Entrepreneurship scholars developed definitions that eclipse previous thinking and move entrepreneurship from the realm of small business management to a more unique and creative undertaking than just that of building a “little” big business. Berglund & Johansson (2007) introduce the idea of entrepreneurial activity as creation and good for society and further discuss entrepreneurship as futuristic industrial discourse. The theme of creativity as entrepreneurial activity is further supported by Daniel, Weinberg, & Berglund (2008). Baron (2000, p. 15) defines entrepreneurs as “individuals who identify opportunities and start new companies to develop them”. The connection between entrepreneurship and creativity is further supported by Amiable (1997, p. 20) “the generation and implementation of novel, appropriate ideas to establish a new venture”. Hunter (2012) notes that an individual’s creativity enables them to detect patterns and relationships between unrelated things and that this pattern recognition can lead to the development of new products and services. Gartner (1990) noted that entrepreneurship could be perceived in two ways: (1) as a process and (2) as an outcome, both requiring creative and novel thinking. The theme of creativity as a necessary component of entrepreneurial endeavors is further supported by Audretsch & Belitski (2013) in their argument that creativity is a special kind of human capital. Their model:

$$d(A) = f(H, C)$$

demonstrates that (A) new knowledge is a function of traditional knowledge (H) and creativity (C) where the application of creativity to existing or traditional knowledge enables the creation of new knowledge. Murray (2012) notes in his critique of entrepreneurship, as hyped by popular media, the need for creativity at the beginning of the enterprise lifecycle and at its end as a means of enterprise renewal or regeneration. He also discusses creativity in its role as facilitator of opportunity recognition and mixing of components to create something new. Tan, Seow, & Toyofuku (2015) recognize that a future view of the world or market must be constructed for an enterprise to innovate and change. They indicate in their book *The Tao of Innovation: Nine Questions Every Innovator Must Answer* that a future view is necessary to determine the nature of change in an enterprise and that creativity is essential to move beyond the status quo and develop breakthrough ideas. Randal (2010) in his book *The Skinny on Creativity: thinking outside the box* says that technical skill and competence cannot be replaced or supplanted by creativity but that they are strengthened by it. Randal’s statement is supported by research conducted by White & Smith (2001) in which they examine perceptions of creativity by different populations. They found that advertising executives and general populations had different views of the creativity demonstrated by an examined advertisement. Creativity for creativity’s sake is not necessarily viewed as creative by all populations.

As outlined above the extant literature supports the notion that creativity is essential to successful entrepreneurial ventures. However, it is not just entrepreneurship that depends upon

creativity but also mainstream ventures as evidenced by a poll of Fortune 500 CEOs conducted by IBM. The CEOs polled indicated that creativity was the number one competency for leaders in the future (Bronson & Merryman, 2010). Although our research targets entrepreneurship, the discussion we are engaging in is equally relevant to the other business disciplines such as finance, accounting, marketing, and management. Bronson & Merryman (2010) express concern over the decline in creativity scores; declining creativity scores may well result in a mediocre marketplace of ideas when the challenges facing the world now and in the future demand a robust marketplace of ideas. They maintain that such a marketplace can only exist through constant refreshing with ideas and a market that is actively seeking new ideas. Eisenmann (2013) dissects the definition of entrepreneurship used by the Harvard Business School in a *Harvard Business Review* article. The definition used by HBS is “entrepreneurship is the pursuit of opportunity beyond resources controlled”. While parsing the definition he maintains that “opportunity” is a collective term that indicates one or more of four characteristics of novelty. These four ways are: (1) product innovation (2) business model development (3) improvement of existing product and (4) finding new customers for an existing product; all of which require creativity. Eisenmann also discusses story-telling as a technique used by entrepreneurs to help potential customers visualize a world in which problems are solved by their venture; again, a very real use of creativity.

The preponderance of the literature reviewed indicates a strong association between creativity and entrepreneurship. We referenced Kyung Hee Kim at the beginning of this paper. Kim (2011) provides evidence of a significant decline in the creativity of youth in the United States through analysis of scores on the TTCT (Torrance Test of Creative Thinking) an established and accepted measurement of creativity in children and adults. According to Miller (2002) the TTCT is used throughout the world and has been translated into 32 languages. The TTCT is used in both the educational field and in the corporate world to measure creative thinking (Kim, 2011). Although research indicates an increase in IQ (intelligence quotient) both in the United States and worldwide over the past century (Flynn, 2007 & Flynn 1984) there has not been a corresponding increase in creativity scores (Kim, 2011).

METHODOLOGY

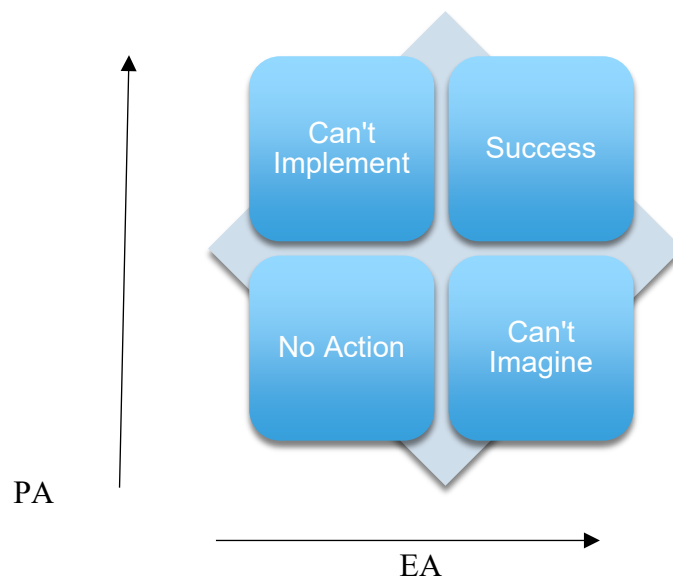
The connection between creativity and paracosmic thinking has been established by Root-Bernstein & Root-Bernstein (2006). We believe that successful entrepreneurs engage in a form of adult paracosmic thinking and probably engaged in world play as children. We have developed a success matrix based on entrepreneurial acumen and paracosmic ability to demonstrate our suggested connection. Figure 1 illustrates our proposed PC-EA relationship. One might question why we choose entrepreneurial acumen as one of the axis on our matrix instead of the more traditional business or entrepreneurial literacy terminology. Entrepreneurship literacy was defined by White, Hertz, & Koutroumanis (2012) as an understanding of an entrepreneurial lexicon obtained from various entrepreneurial textbooks and categorized by entrepreneurial educators. General agreement exists on an overall definition of literacy in it being a statement about an individual’s depth of knowledge about a specific subject or field of endeavor. However, the act of entrepreneurship is one of creation and that requires something different than an in-depth knowledge of a specific field. We have chosen acumen as the action term and use it in this research as the sense of making correct judgments in a particular field.

Figure 1 illustrates our construct. The X axis indicates the strength of the subject's entrepreneurial acumen and the Y axis demonstrates the strength of the subject's paracosmic ability. Using the matrix illustrated by Figure 1 we demonstrate four states that an individual might occupy.

Quadrant IV (Can't Imagine) develops an environment in which an individual has entrepreneurial acumen (EA) but has a very low or non-existent paracosmic ability (PA). This combination of PA and EA can result in understanding the functioning of a business enterprise but a total absence of any ability to imagine a world within which the proposed business would solve an identified problem or provide any gain to a customer base. We propose that such a scenario results in a typical life-style business that provides the external environment nothing unique and provides a minimal financial return to the enterprise owner and manager.

The scenario depicted in Quadrant III (No Action) illustrates an environment in which the potential founder of an enterprise can't imagine a world in which the business would be a viable problem solution for a customer base and the potential founder is at a complete loss as what actions need be taken in order to develop a business idea into a successful business model; in Quadrant III the solution goes wanting due to a lack of both business acumen and paracosmic ability.

Figure 1.



PA to EA Relationship

The environment depicted in Quadrant II (Can't Implement) is one in which the founder has a clear image of the world in which the business idea would function and the problem it would solve. Lacking, however, is the business acumen to develop the idea into a viable business model. Quadrant II depicts a situation in which the potential founder talks excitedly about the future and the place for the business idea in that future world but never makes a move to implement the idea.

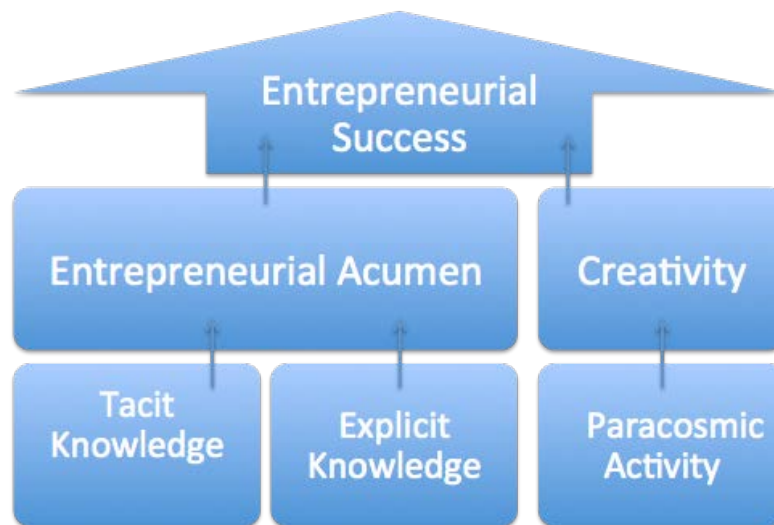
Quadrant I (Success) is the proverbial “sweet spot” in terms of entrepreneurial success. Here we find increasingly strong combinations of business acumen and paracosmic ability. The founder has a clear and strong vision of a future world in which the business is playing a dynamic role in solving specific problems and bringing value to the customer base. The founder also has the business acumen to develop and implement a business model that will accomplish the future that is envisioned.

We are of the opinion that our PA-EA matrix can describe most environments that can result in a successful entrepreneurial venture or its opposite; a failure or a solution gone wanting. The following function describes the entrepreneurial environment that we imagine using our matrix

$$d(E) = f(PA, EA)$$

where the success of the enterprise E is a function of PA (paracosmic ability) and EA (entrepreneurial acumen). Figure 2 illustrates the function. Using our function one may state the entrepreneurial exercise as existing in some degree of any one of the four states identified in the PA—EA matrix. One may develop several scenarios of entrepreneurship that can be explained by application of the PA—EA matrix.

Figure 2.



Graphical depiction of $d(E) = f(PA, EA)$

1. An individual has a valid idea with the potential to solve a problem for a customer base and that will create and capture value. The potential entrepreneur is able to visualize customers using the product to solve their problems (paracosmic thinking) but is unable to visualize the business model that would enable the product’s delivery to the customer (business acumen). This is an environment that hopeful entrepreneurs find themselves within daily. Finding oneself in this environment should not preclude moving the idea forward. Individuals in this

quadrant (II) should avail themselves of assistance from governmental sources such as the SBA (Small Business Administration) and SBDC offices (Small Business Development Centers). Education and mentoring can overcome the lack of business acumen.

2. An individual wants to start a business using an existing skill set in order to provide a desired work environment. Michael Gerber (1986) identifies this type individual as a technician. This individual is determined to work alone and does not imagine the business as a component in a future vision that solves customer problems, creates value, and captures value. The business is a place where the technician can work. This situation can be found in quadrant III. Note the lack of paracosmic activity or a future vision of the business and the lack of business acumen that combined provide the technician a safe place to work but which will also guarantee failure as the business matures. Quadrant III may well be a dead, or at best, a zombie zone for entrepreneurial activity unless the technician undergoes a significant change in orientation to both future vision and needed business acumen.
3. The “manager” lives in quadrant IV. Here is the individual with business acumen obtained from both tacit and explicit knowledge. Lacking, however, is the vision of a future in which the entrepreneurial idea takes root and grows into a viable business. This individual is capable of managing resources and achieving goals for an organization. The manager works for an organization or can be successful in developing an existing franchise operation which has been imagined by someone else.
4. The successful entrepreneur occupies quadrant I. Here we observe the strongest combination of entrepreneurial acumen and paracosmic activity. The entrepreneur has an idea that solves a problem and will both capture and create value. The future state of the enterprise is fixed clearly in the mind of the entrepreneur and the vision can be communicated to potential stakeholders and customers.

Our model illustrates the necessity for both entrepreneurial acumen and creativity to provide an environment for entrepreneurial success. We perceive business acumen as a combination of explicit knowledge (traditional understanding of the basics of finance, accounting, marketing, and management) and tacit knowledge (a sense of what works and when to act gained from experience and formal education) and which is necessary for success in the entrepreneurial venture. However, our model also requires creativity in the form of paracosmic activity in which the aspiring entrepreneur can not only envision a solution to a problem but can readily see the business that will solve the problem and how it will interact in the future world. George Bernard Shaw (1921) said it quite succinctly in *Back to Methuselah* in Act I of *In the Beginning: B.C. 4004* in which the serpent says to Eve “You see things and say “Why?” But I dream things that never were; and I say “Why not?”

DISCUSSION

We are concerned; Kim (2011) indicates that creativity scores are decreasing in the face of ever increasing intelligence scores. The 2014 GEM (Global Entrepreneurship Monitor) states that the birth rate of new enterprises in the United States averages 14.5 percent. The research generated by Root-Bernstein & Root-Bernstein (2006) report an incidence of world play or paracosmic thinking of 12 % in the general population. This supports our proposition that successful entrepreneurs probably engage in paracosmic thinking both as children and as entrepreneurs imagining a world in which their business idea solves a problem.

Our concern is generated by the reports of decreasing creativity scores in the general population. This same population from which entrepreneurs spawn. Increasing intelligence scores accompanied by decreasing creativity scores in the general population does not bode well for the continuation of a vibrant entrepreneurial community in the United States and, dare we say it, the world. Increasingly we read and hear about advancements in technology that will eliminate jobs for both white and blue collar workers. The elimination of jobs due to technical advances that make the worker redundant will not occur without massive repercussions within society. We hope that entrepreneurship as a calling will remain vibrant and will absorb some of the societal shock that occurs with ever increasing automation of jobs. However, a continuing decline in creativity scores could inhibit the ability of the entrepreneurial population in developing enterprises able to absorb a workforce deemed redundant. Our PA—EA matrix clearly demonstrates the necessity of creativity in successfully developing an entrepreneurial idea.

We postulate that creativity is essential to entrepreneurial success and that the individuals who develop successful entrepreneurial ideas have more creativity than do individuals who do not venture into the entrepreneurial arena. Jackleg (2015) recounts in her book the many ways that entrepreneurs in developing countries are solving problems by the creative use of resources available to them. This adult creativity is nurtured during childhood and in many cases through the teen years and into adulthood by world play or paracosmic thinking. We are concerned that the decrease in creativity scores is partially caused by an increase in video and other electronic game playing. Coves-Masfety, et al. (2016) indicate that video games account for more than five hours of activity each week for many children. Although their study investigated European children we are generalizing the results to the United States for purposes of argument in our paper. The results obtained by Coves-Masfety, et al. (2016) indicate that video game play is associated with greater intellectual functioning and achievement in the academic realm. However, they did not test creativity in their subjects as they were looking for potential mental health problems in the video game playing population. They found none.

We previously noted that intelligence scores continue to increase in the United States as creativity scores decrease. Our concern is that as video play becomes more sophisticated and virtual worlds become ever more realistic the creativity scores will continue to decrease. We suppose this because as these worlds become more defined the need for childhood creativity to flesh out these imagined worlds becomes less needed. The worlds that gamers are inhabiting are pre-defined by the game developers; there is no need for the player to exercise creativity in the sense of paracosmic thinking as the game designer developed the world and its rules as an internal part of the game play experience. The further removed children are from the need to develop their own paracosmic environments the less powerful will be their creativity.

There is hope for the future however. Muscle is often used as an analogy in explaining creativity. We must exercise our muscles in order to maintain fitness and to grow stronger; creativity increases through use in much the same way. Schools need to encourage creativity in students through offering ample opportunities for students to utilize creativity in safe and non-threatening environments. Business schools need to offer creativity courses in their entrepreneurship minors or majors; if not offered in the school courses in creativity need to be available to business students outside of their disciplines and the students need to be encouraged to enroll into them. Projects, papers, and presentations need to have an expectation of creativity in their assignment. The decline in creativity scores must be stopped and then reversed. Future business needs and problems are going to demand creative solutions to increasingly complex

problems and colleges of business will be looked to for graduates who can deliver those creative solutions. Let's help our students exercise that creative muscle by designing programs that will offer opportunities to be creative and by celebrating their creative accomplishments.

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