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Entrepreneurial Creativity as Discovery and Exploitation of Business Opportunities

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1. Introduction

Our perception of the creative formation of organizations through entrepreneurship has changed dramatically during the past ten years (e.g., Carlsson and Eliasson 1993; Davidsson 2003). For a long time, entrepreneurship was construed in terms of managing a small business or being the owner-manager thereof. However, entrepreneurship is not directly associated with this particular context; it is essentially context-free organizational creativity (Gartner et al. 2003; Hjorth 2003, 2004; Sarasvathy 2001; Steyaert and Hjorth 2003). It is equally likely to be present in large corporations' renewal efforts and in the identification of new markets and technologies as in the development projects of public organizations or, for that matter, in the reorganization of universities (cf. institutional or social entrepreneurship). At the core of entrepreneurship lies the creation and exploitation of entrepreneurial opportunities regardless of the context (Shane 2003). Entrepreneurship is a creative activity taking place when neither the goal nor often the initial conditions are known at the start, but constructed during the process (Sarasvathy 2001). This happens, because there is no single right or best solution, and even the starting situation may be so complex and constantly changing that it is difficult to analyze it reliably in the extent necessary. Bearing in mind the discussion above, this paper uses the term entrepreneur to refer to an individual or a community of individuals (organization) that creates new business in its operational environment (cf. Hjorth 2003).

Crucial for the study of entrepreneurship is the theory of organizational creativity (Hjorth 2004), for it is impossible to understand the behaviour of an entrepreneurial individual without considering the entrepreneur's psychological abilities, the social impact of the environment and the interplay between the two, manifesting itself in the entrepreneur's capacity to create something new or original (see Woodman, Sawyer and Griffin 1993). Rational models of entrepreneurial activity presume that the environment induces individuals to perceive opportunities in it, to identify promising market niches or introduce new innovations (Shane 2003). Regarding this view as being too narrow (Wood and McKinley 2010; see also Burrell and Morgan 1979), this paper assumes that individuals construct their own realities using concepts available in their culture (Downing 2005). Thus, entrepreneurs and their business opportunities are not merely products of the environment, which the entrepreneurs will find, if they only know how to

search rationally (Kirzner 1979); rather, they are a product of the interplay between the entrepreneurs' own creativity and their organizational environment (Kirzner 1997). This line of thinking is in alignment with the research of Sigrist (1999), who posits that perceiving and exploiting business opportunities involves the creative discovery of something new (see also Sarasvathy 2001).

How can we explore the link between business opportunities and creativity, given that only a few research papers have been published on creative processes in business (Jenssen and Kolvereid 1992; Muzyka 1992; de Koning and Muzyka 1996; Kirzner 1997; Hills, Shrader and Lumpkin 1999)? Too few in number, the conceptual foundation provided by these papers is insufficient for constructing an adequate framework for research. Nonetheless, research papers on entrepreneurship often hold entrepreneurship as a form of creative activity (see, e.g., Schumpeter 1934; Johannisson 1988; Baumol 1993; Bull and Willard 1993; Bygrave 1993; Hjorth and Johannisson 1997; Kirzner 1997; Wood and McKinley 2010). Moreover, research has demonstrated that the dynamic, change driving spirit of entrepreneurship is associated with the ability of entrepreneurial individuals to generate new ventures. More often than not, however, this research merely stakes its claim, while failing to systematically explore the creative processes of entrepreneurship (Alvarez and Barney 2010).

This is not to say that no research exists that specifically investigates entrepreneurship as a type of creative activity (e.g., Fernald and Solomon 1987; Winslow and Solomon 1987, 1989, 1993). Unfortunately, this research is plagued by a problem that, according to Gartner (1990), pervades the entire history of entrepreneurial research; namely, that it has focused on distinguishing entrepreneurs from other business people in terms of creativity and innovation, instead of making an effort to study and understand the creative process itself (see also Steyaert, 2007). Personality characteristics of entrepreneurs have little bearing on how they—as individuals or organizations—create new business. As a result, even these studies fail to provide a sound basis for research. Although falling short of adequately supporting the development of the idea of viewing organizational creativity as a form of perceiving and implementing business opportunities, they justify exploring the emergence of new business ventures as a creative process (cf. Hjorth 2003)

This paper reflects on organizational creativity in terms of discovery and exploitation of entrepreneurial opportunities. A theoretical foundation for the notion of perceiving and seizing business opportunities as a creative process is first sought in creativity research. On this basis, the paper constructs a view of entrepreneurial creativity as a creative process and presents a theoretical conception of the discovery of business opportunities as a creative process. The structure of the paper is as follows: First, a theoretical background will be provided for the research area, followed by an inquiry into what makes the processing of business opportunities a creative activity. Third, this paper will present a review of existing research on creativity, which it then uses as a foundation for developing an understanding of creativity as a phenomenon. Fourth, the essence of creativity will be charted and the concept of creativity, as it emerges from research, will be discussed. Next, a framework, based on a theoretical approach to creativity, will be presented for the entrepreneurial ability to generate business opportunities. Finally, a discussion will be conducted on the issues raised by this research.

2. Theoretical background — entrepreneurship as the creation of new business

A core attribute of entrepreneurship is the ability to develop and exploit business opportunities (Shane and Venkataraman 2000). Some have gone as far as claiming that in today's complex and ever-changing financial and business environments, venture opportunities and the ability to recognize and seize them are more vital to success than the entrepreneurs/manager's personal characteristics or the firm's efficiency (e.g., Puhakka 2007). One interesting reference in this context is MacMillan and McGrath's book on strategic management (2000), which states that the central weapon in the strategic arsenal of business organizations is the ability to create and exploit new venture opportunities. This represents a remarkable opening gambit to a wider mindset in which entrepreneurship is regarded as a strategic competence, capable of being utilized in all manner of organizations.

Recognized as the creation of business opportunities, entrepreneurship comprises ideas, beliefs and actions directed toward generating new economic activity that emerges gradually as the process continues (Sarasvathy, Dew, Velamuri and Venkataraman 2003). Hence, entrepreneurship is strongly present when the actors enter a business space ("entre") without knowing what it is all about, what kind of business they want to conduct or even what they are striving at. It is also less relevant, whether the outcome of the activity is the establishment of a new firm, an extension of existing activities or expansion into a new market. We are dealing with a problem-solving situation in which the situation, rules, solutions and goals must be created through action (Sarasvathy 2001). Under these conditions, it is practically impossible to apply logic to arrive at the right and best solution. Central to the effort is identifying and creating a business opportunity using the entrepreneur's creative ability as functional instrument. This is precisely the phenomenon that entrepreneurship circles around and one that researchers should delve into (Davidsson 2003). After this event, when the actors move forward into the next space ("prendre") centering around the implementation of the new business activity, we are no longer concerned with intrinsic elements of entrepreneurship.

"Entreprendre", the original French term for entrepreneurship, offers an excellent description of the concept's essence (for further details, see Hjorth 2003; Chell 2007). Entrepreneurship is stepping into a space where new business can be hatched, without an idea of the nature of that business, and then making an effort to outline it. It also includes stepping out of that space with a business opportunity and realizing it through other measures, such as management initiatives and marketing. What goes on in this space is an exceedingly interesting phenomenon. This entrepreneurial space and the creation of a business opportunity within it, is by no means an isolated process, detached from its environment, nor a closed, internal process from which a novel business idea crops up. Rather, this space is a process in which the mental creative powers of the entrepreneur and the environment are in continuous dynamic interaction. Occurring within this space is something that absorbs influences from present business activities, bringing chaos and discontinuity into it. How can we characterize this process is the question that the next section seeks to answer.

3. Processing of business opportunity — a creative or rational undertaking

As an organizational process, the task of entrepreneurship is to revitalize and promote the economy by breaking old routines and patterns. Moreover, a business opportunity can be viewed in terms of entrepreneurial cognition of the business situation, the entrepreneur's internal model of it, arising out of the entrepreneur's construal of not only the situation's temporary dimension, window of opportunity and key business elements, but also of their interrelationships (Vesalainen and Pihkala 1996). It is through these three factors and their relations that the entrepreneur constructs an internal model of the opportunity.

By regarding business opportunity in terms of cognition, we must presume that it originates from a cognitive process. This, then, leads to a notion that the ontological stance of this study is cognitive (social) constructivism (Chell 2007; Chiasson and Saunders 2005; Steyeart 2007). Cognitive constructivism, according to Steyaert (2007), *“focuses upon (mostly individualized) cognitive processes through which individuals mentally construct their worlds using socially mediated categories, simultaneously ‘downplaying’ the role of language as an external expression of internal cognitions”*.

In this research, cognitive process is not seen as a systematic and rational arrangement of knowledge gleaned from the environment (e.g., Christensen, Madsen and Peterson 1994), but as a creative process, in which information is utilized to develop a completely new knowledge structure (Chell, 2007; de Koning and Muzyka 1996; Hills, Shrader and Lumpkin 1999). In other words, business opportunities are not the result of first searching for seeds of knowledge in the available resource base, including technological innovations, markets, competent personnel, available production facilities and equipment, and then applying logic to single out the best possible opportunity (see Cadotte and Woodruff 1994).

It is not as simple as that, because perceiving a business opportunity calls for a creative insight (cf. Kirzner 1997) to combine the wealth of information at hand in a meaningful way. Were it only a matter of organizing information, everyone would be able to identify venture opportunities. This is blatantly not the case (e.g., de Koning and Muzyka 1996; Hills and Shrader 1998), however, it is entrepreneurs who are specifically good at spotting business opportunities based on snippets of information found in the environment. Nevertheless, information alone is not enough, because piecemeal information tells us precious little about business opportunities. They only emerge when the entrepreneurial mind (either individually or collectively) arranges and assembles the pieces, putting them in a meaningful relation to one another, and thereby creates a new knowledge structure. Similarly, a large circle, two small circles, a triangle and a line are devoid of meaning as separate entities, other than as geometric shapes, and yet they acquire a meaning when arranged in a specific order, such as a human face. Relationships among the pieces are just as important as their meaning content.

Thus, business opportunities are processed such that the entrepreneur uses acquired knowledge and previous experiences to assemble a new whole of the pieces, because the situation is baffling, confusing, chaotic and, most of all, inconducive to providing a right answer (see Singh, Hills, Hybels and Lumpkin 1999). Reassembling the pieces does not lead to a collection of pieces, but to a novel image, whose totality is defined by the relationships among its elements. Equalling the content of knowledge in importance, these relationships are forged through creative thinking. This cannot be achieved merely by rearranging

existing knowledge content. For example, working on a jigsaw puzzle, we know that each piece has a specific place in the overall picture. Through diligence and a systematic approach to the task, the pieces can eventually be fitted together. Business is not a jigsaw puzzle. Instead, it constitutes a situation in which you have a few pieces, but no idea as to what to make of them. Relying on your creative talent you have to figure out what the pieces are all about and how to arrange them into something meaningful. Similarly, the entrepreneur must work out how to combine the snippets of information to come up with a viable solution. And not only that, the entrepreneur also needs to learn from that experience, in order to draw on this personal resource in analogous situations.

In a situation where business opportunities could be arrived at simply by the application of logic, the entrepreneur would be able to determine the starting conditions and decide what information will be required and relevant, where to get it and what aspects to focus on. At the onset, the entrepreneur would be in a position to obtain an overview of the business situation. In the same way, it would be a relatively straightforward task to envision the desirable end state. In addition, the entrepreneur would be able to deduce by what means the business potential inherent in the starting situation could be converted into a profitable business opportunity (see Mayer 1992: 5-7)

As already noted, the creation of a venture opportunity is not a rational process of this type (Sarasvathy 2001). Humans are incapable of capturing all information available in any situation, or using it to construct a comprehensive representation of reality (cf. Simon 1979). Instead, they focus on the parts they deem salient and ignore the rest. Through internal processing they create their own versions of reality, based on the knowledge they possess and the social situation that prevails in that particular problem-solving situation (cf. Weick 1979).

In terms of problem solving, acquisition and processing of information are not rational in the strict sense, because humans are creative and innovative information processors. Opportunity identification is more closely linked to creating meaning from a fragmented and ambiguous context than reaching a decision grounded on exact information within a confined decision space (see Weick 1979). Thus, the entrepreneur creates reality rather than selects it.

Reasons behind the non-rational nature of the problem-solving process are the following: firstly, due to cognitive and social constraints, entrepreneurs are incapable of deciding what information is important. Relying on previous experiences, they tend to select information that they are already familiar with (Tversky and Kahneman 1974). However, since this information may not be relevant to the present situation, the rational underpinnings of the process will be compromised. Secondly, situations in which business opportunities may be present are so complex that correct answers are not deducible from its elements. This impels the entrepreneurial mind to search for a novel solution, a mental construction providing an at least somewhat coherent interpretation of the environmental clues. Further, if opportunity discovery were a rational process, entrepreneurs would be able to utilize proven solution models, either directly or in modified form. This is prevented by the dynamic and complex nature of the situation, compelling the entrepreneurial mind to jettison past solutions and devise a new one, which manifests itself as a business opportunity (see Saariluoma 1990).

In a rational process, the entrepreneur would be able to collect all information that has relevance to the present situation, gain an overview of it and all of its elements, and then look for a solution based on existent, definable and selectable operations. Opportunity identification in real life suffers from the constraints discussed above, hampering the rational, logical approach. Somehow the entrepreneurial mind must sweep the situation and apply creative thinking to arrive at a viable solution. But what is creativity, a notion often cropping up in entrepreneurial literature, yet rarely subjected to a rigorous conceptual analysis. In which scientific discourse may we find the basis of creativity? That is the question this paper shall address next.

4. Creativity as a research topic

Creativity research has traditionally been the domain of psychology (Busse and Mansfield 1980), but in recent years creativity has increasingly attracted the attention of other sciences as well, including organization theory (e.g., Drucker 1998). Interest in it has increased, because theories on creativity offer conceptual tools for explaining and understanding the genesis of novelty, which is an integral part of competitive business (de Konig and Muzyka 1996; Muzyka, de Koning and Churchill 1997). It also provides a basis for understanding the emergence of new business (Hills, Shrader and Lumpkin 1999). This section aims at using major theories of creativity to provide a conceptual framework for creativity and then anchoring entrepreneurial creativity in this framework.

Schools of creativity

Creativity has been approached from several different theoretical perspectives, which can be viewed as different schools of creativity (see Getzel and Jackson 1962; Gowan 1972; Woodman, Sawyer and Griffin 1993; Treffinger 1995). According to Woodman, Sawyer and Griffin (1993), these schools fall into three categories: personality, cognitive and social psychological. This classification will be used here as a starting off point for a more detailed survey.

Personality-oriented school of creativity. Not a coherent approach, the personality-oriented school of creativity can be divided into several sub-groups. What they all have in common is that they approach creativity from the perspective of the individual personality. Thus, they see creativity as an expression of personality. The following is a brief description of these approaches, based on Woodman's classification (1981) in which this school comprises the psychoanalytic, humanistic, behaviourist and trait perspectives.

Foremost among the representatives of the *psychoanalytic* perspective on creativity are Freud, Jung, Rank, Kris and Kubie (see Taylor 1975). Their concept of creativity draws on ideas formulated by Freud (e.g., 1958), who associated creativity with the individual's need to maximize satisfaction of desires while minimizing punishments and guilt. To Freud, creativity translated into sublimation of unconscious drives and instincts. He claimed that individuals have needs and desires which they cannot satisfy directly; instead, they transform their urges into socially acceptable creative outcomes. In his thinking, Quentin Tarantino's intense and violent, yet highly acclaimed films, such as Kill Bill, are creative reflections of the film-maker's sexual and aggressive repressions.

Jung, a one-time student of Freud, renounced the latter's idea of sublimation of libidinal energies as the source of creativity (see Jung and Franz 1964). It was unacceptable for Jung that behaviour, including creative activities, would be motivated by animalistic, especially sexual, drives. He too viewed creativity as springing from the human unconsciousness, but assumed that it stemmed from the collective rather than individual unconsciousness (cf. Woodman 1981). Collective unconsciousness is a repository of all knowledge and experiences we have inherited from our ancestors. Constantly accumulating, this shared repository is the origin of all new ideas, which, according to Jung, the conscious mind then shapes into a creative product (e.g., Jung and Franz 1964). Tarantino's films can thus be seen as reflective of the entire human society and its historical development. Having consciously accessed the repository of collective knowledge, Tarantino has picked his outrageous themes from the collective unconsciousness and then presented reflections of our own thoughts about modern society back to us.

Further developing Freud and Jung's theories of creativity, Rank (e.g., 1996) emphasized the central importance of creativity in explaining and understanding human nature. To Rank, creativity amounted to overcoming life's fears (cf. Chambers 1969; Woodman 1981), and he saw the creative individual as an ideal, an artist of his or her own life, who has consciously managed to solve unconscious fears. Tarantino's films are then a way of unravelling his inner fears. In this way, he has solved his problems and translated them into creative products.

Kris' theory of creativity stressed the importance of the conscious at the expense of the unconscious (Kris and Kurz 1981). Alike his predecessors, Kris believed that the source of creativity is located in the unconscious, but that the conscious mind taps into this creative potential and gives it a concrete expression. He equated creativity with regression at the service of the ego (id) (cf. Busse and Mansfield 1980; Woodman 1981; Heikkilä and Heikkilä 2001). In other words, using regression as a mediator to put the individual in touch with an earlier developmental stage, creativity engages the conscious and unconscious in fruitful collaboration. Tarantino's films can be seen as expressions of his return to childhood war games with their unrestricted brutality and cruelty. Guided by his strong ego, he now consciously re-enacts these games, albeit at a more varied and sophisticated level.

Kubie (1958) broadened Kris' theory of creativity and contended that the origin of creativity is the preconscious, falling between the conscious and the unconscious (see also Busse and Mansfield 1980; Woodman 1981; Heikkilä and Heikkilä 2001). He regarded the preconscious as a system that transmits ideas from unconscious deep structures to conscious thinking processes. On this view, creativity corresponds to the realization of preconscious images. Within this framework, Tarantino's work represents an outpouring of preconscious images, emotions and ideas. In short, the psychoanalytical school holds that creativity is the transformation of resources contained within the deep structures of the human mind into socially acceptable forms.

In its essence, the *humanistic* approach to creativity is based on work by Rogers (1961), Maslow (1943) and Fromm (1947) (see also Heikkilä and Heikkilä 2001). Rogers placed particular emphasis on freedom and safety as sources of creativity, meaning that creativity cannot be forced or mandated, but springs from free will, like a child's play (see West 1990). Freedom permits the individual to access primal processes and tap into unconscious

impulses for stimulus. Creativity is seeing the versatility of life in new ways, and Rogers (1961) stressed that this is possible only when the individual is open to new experiences, has the ability to play around with elements and concepts and is capable of evaluating when something valuable emerges out of the process. In this framework, Tarantino's work could be interpreted as the purposeful exploration of a novel perception of life. He may be able to bring forth something from his unconscious, a reflection of the shape of things to come.

Maslow, equating creativity with the voluntary self-fulfilment of a free individual in a free environment (see also Woodman 1981; Treffinger 1995), ranked creativity at the top of the hierarchy of human needs. Moreover, he asserted that, while all people are born with a creative ability, civilization lays restraints on some of our basic instincts. And yet, there are individuals who do not lose their childlike craving for self-actualization and creative expression. Everyone has the right, as well as the opportunity, to be creative and innovative, provided that they grasp that opportunity. Like a child in a safe and free environment, Tarantino seizes the opportunity for self-actualization, and does things he has always dreamed of doing. While fulfilling his dreams, he makes artistically ambitious movies.

In Fromm's view (1947, 1989), creativity allows people to recognize themselves and find their place in the world (see also Woodman 1981; Levine 1999). He would say that Tarantino uses films as a vehicle for defining his position in the social environment; they are a means of determining his identity and place in the world. Thus, Tarantino employs creativity to forge a meaning for his life.

The humanistic approach converges with the psychoanalytic view on the point that creativity and innovation involve both primary (unconscious) and secondary (conscious) processes. Also humanistically oriented thinkers believe that the unconscious is a pool of resources, providing material for conscious processing. The difference is that they do not agree on the pushing effect exerted by drives, energies or needs. Creativity is not the result of impulses pushed or even forced up from the psyche, but a voluntary and consciously chosen state. Driven by the conscious, it is a lifestyle, representing the most advanced way of leading a life. In the humanistic view, creativity is a self-chosen, voluntary realization of goals and objectives arising from an individual's personality, indicating the human need to find one's place in the world by fulfilling one's life goals.

In *behaviourist* conceptualizations, creativity is the result of learning. Behaviourists posit that creativity is based on cumulative, hierarchical knowledge that is processed in response to environmental stimuli (Woodman 1981). Furthermore, creative products are no different from any other, but because the creators possess superior knowledge, the solution or product appears as exceptional or original to others. Behaviourists hold that creative output is never achieved by discrete jumps, it is always anchored in previous experience and knowledge, albeit the stimulus may be unique.

Skinner (1957) argued that creativity is a reflection of that which is learned and that its originality derives from future expectations. Thus, a painter's creativity is based on anticipation of positive feedback. In essence, the creative process represents a normal response to a stimulus in a situation where a creatively productive individual has been conditioned by future expectations and where the individual has such vast knowledge and experience as to be able to produce high-quality output eclipsing that of others (Woodman 1981). Future expectations serve as stimuli and the creative product represents the response

(see Skinner 1957), with the quality of the product being dependent on the respondent's level of knowledge.

Behaviourists would therefore tend to think that Tarantino is creative, because he expects to receive something in exchange. The excellence of his motion pictures attests to the fact that he is in possession of relevant and sufficient knowledge and skills. In principle, though, he is not doing anything that is qualitatively different from what anyone else could do—the only difference is in the amount of accumulated knowledge. As apparent, there is a sharp distinction between the behaviouristic approach on one hand and the humanistic and psychoanalytical approaches on the other. Underlining the importance of knowledge and learning, behaviourists do not regard creativity as a higher dimension of personality, but as a perfectly ordinary activity—a mere response to stimuli, albeit one that is socially valued.

Trait theorists attribute creativity to certain personality traits (e.g., Guildford 1967; Barron 1969; MacKinnon 1978), which are relatively enduring predispositions to behave in a particular way (Guildford 1967). Having studied creative individuals, trait theorists have identified a host of traits that characterize them, including independence, diligence, originality, stubbornness, enthusiasm and openness to new ideas and experiences (see Mellou 1996). Trait theorists look upon creativity as a special mental capacity, stemming from certain personality traits.

Tarantino, for example, is creative, because he has the intellectual wherewithal to do so. He has such relatively stable attitudes toward film-making and ways of working as allow him to turn out critically acclaimed movies. Compared with the psychoanalytic and humanistic approaches, trait theorists are shallower and more practically minded. In their view, creativity does not originate from within the unconscious, nor does it represent the fulfilment of life goals. Creativity is the sum total of clearly distinguishable traits, and individuals in possession of these traits are intrinsically creative. While both behaviourists and trait theorists regard creativity as a response to stimuli, the former see the response as based on knowledge, the latter as based on personality traits. It must be noted, however, that this comparison is unfair to trait theorists, because they are not interested in stimulus-response relationships. Despite their differences, both theories agree that creative output occurs in response to a need, although the foundation for creativity is different in these two approaches.

Fragmented though the personality-oriented school of creativity may be, all the different approaches regard creativity as a personality dimension. Creativity is a characteristic of personality, and in a sense, creativity is personality. What these approaches fall short of is explaining the creative process itself. How does a creative personality find its expression in a creative product? While psychoanalysts analyzed primary and secondary processes, humanists self-actualization processes, behaviourists learning processes and trait theorists life stories as processes, the cognitive school of creativity started exploring creative processing in the human mind.

Cognitive school of creativity. Focusing on process models of creativity (Pesut 1990; Sapp 1992; Mellou 1996; Kirschenbaum 1998), cognitivists look on creativity as a mental process involving the generation of new ideas and concepts. Wallas (1926) suggested that the creative process comprises four stages: preparation, incubation, illumination and verification. At the first stage, individuals collect information required for solving the

problem at hand. Then, at the incubation stage, they push out the problem from the conscious mind, allowing the unconscious to do its work. Reaching the third stage, they solve the problem through a sudden cognitive insight. Finally, at the last stage, they verify the correctness of their solution by applying it to the problem. Criticism has been levelled against Wallas' model on the basis that it is largely the result of introspective observations (Mayer 1992: 48). It is not without empirical support, however, and current process models of creativity are not so far removed from his theory (cf. Sternberg 1988: 132–135).

Cognitive approaches associate creativity with normal cognitive processes such as perception, remembering and understanding. Sternberg (1988) has postulated that creativity arises from selective classification, selective encoding of information, selective combination of relevant information and selective comparison interrelating new information with what is already known. If existing knowledge suffices to solve the problem, there is no need for a creative approach. However, in case a novel solution is required, new information must be integrated with previously stored knowledge. Thus, creativity is a mental process that includes the perception, comparison, selection and synthesis of existing knowledge and new information to generate a creative output.

Furthermore, presuming that creativity favours the prepared mind (Sternberg 1988), cognitivists believe that a diligent effort to seek for and apply information is a prerequisite of creativity. In addition to viewing creativity in terms of mental processing, they also see it as an intellectual style, a way of conceptually organizing the environment (see Woodman and Schonfeldt 1989, 1990). Creativity is thus associated not only with processing (Wallas 1926) and manipulating information (Sternberg 1988), but also with cognitive styles, or preferred ways of using our intellectual capacity (Sternberg 1997). Research has shown that the cognitive style of creative individuals can be characterized as flexible, fluent, original and divergent (Woodman and Schoenfeldt 1989, 1990). Amid fragments of information, these individuals are capable of discerning something that others fail to see (flexibility), they can reject old models and assimilate new knowledge with ease (fluency), their solutions are different from those of others (originality) and they seem able to find relationships and connections between things that are superficially very different (divergence).

Cognitivists would say that Tarantino's creativity involves subtle perception, classification, comparison and transformation of information relating to movie making, and that he applies his flexible, fluent, original and divergent cognitive style to the task. Tarantino has just the right type of mental capacity that allows him to process information into the motion picture format.

The cognitive school is set apart from the personality-oriented school by its focus on the creative process and how it works. Uninterested in the personality of the creative individual, cognitivists turned their attention to mental processing of information. As the personality-oriented school had failed to find a satisfactory explanation for creativity, cognitivist theories sought to fill the gap and provide a deeper understanding of the phenomenon. Aside from their obvious differences, both schools centre on the individual, neglecting to attend sufficiently to the environment/society surrounding the creative individual. Because these factors have an undisputed effect on creativity, a new school emerged, referred to as the social psychological school of creativity.

Social psychological school of creativity. Creativity is the product of environmental influences is the basic tenet of the social psychological school. These influences are so powerful that creativity cannot be studied without an understanding of its context (Woodman and Schoenfeldt 1989). Csikszentmihalyi (1988) has noted that creativity does not occur in a vacuum, but has a domain in which it takes place, as well as a symbolic field, in which it belongs. The domain and field can be thought to generate the knowledge, skills and characteristics that the individual is in possession of – and thereby creativity. To the social psychological school, individuals are embedded in their context, and vice versa, which is why the two cannot be dissociated from one another when investigating creativity. Depending on whether emphasis is placed on the sociological or psychological aspects of social psychology (see Eskola 1982: 14), context is seen either as the direct source of creativity or as exerting its influence through the individual. The latter interpretation is more prevalent among creativity researchers (e.g. Amabile 1995, 1997). A likely explanation for this is that, in the psychological perspective, creativity appears as a trait possessed by individuals. We may therefore conclude that, regardless of the social psychological school, creativity research suffers from a lack of engagement from sociological theory, which could shed new light on creative processes.

Currently, the most prominent representative of the social psychological school of thought on creativity is Amabile (e.g. 1988). She has advocated a psychological perspective, in which context, expressing itself through the individual, either impedes or promotes creativity (Hennessey and Amabile 1988). She has also pioneered the idea that creativity is a manifestation of intrinsic motivation, which arises largely from social motivators. Hence, strict discipline and punishments block intrinsic motivation and hamper creativity in consequence. Amabile's background is in motivational research, where empirical evidence suggests that performance is not significantly improved through external rewards only, but through an intrinsic interest in the task. It has also been found that the quality of creative output increases as a function of intrinsic motivation (e.g., Deci and Ryan 1985).

Having studied the effects of internal and external motivation on the quality of creative work, Amabile has concluded that, while intrinsic motivation stimulates creativity, external motivation may even serve as an impediment (Hennessey and Amabile 1988). In addition, she has noted that intrinsic motivation is adversely affected by such external factors as restrictions, rewards, control and feedback. When intrinsic motivation is replaced with external motivation, the joy of doing something for its own sake is substituted with an extrinsic motive, with a resulting decline in quality and creativity. Noteworthy though Amabile's findings may be, it must be borne in mind that, among the schools of creativity, the social psychological school suffers the distinction of being the least theoretically structured and sophisticated (Woodman and Schoenfeldt 1989). Nonetheless, it has demonstrated the value and impact of social aspects for the study of creativity, and that creativity can only be understood in context.

The presentation above is not intended as a complete description of the schools of creativity, but as a brief overview of the most important ones, selected on the basis of previous researchers' findings. The presentation was kept succinct, for its purpose was merely to provide a theoretical and historical framework for discussion. It may be concluded that the different schools have brought different perspectives and different units of observation to bear on creativity. Some focus on the individual, others on the process and yet others on the

context of creativity. Many have a shared interest in the creative outcome. Due to the number of schools and perspectives, the field is somewhat fragmentary, an impediment that this overview, albeit short, has sought to remedy.

Creativity research tends to cluster around four perspectives: context, individual, process and product. Conceptualizing creativity as a process, context constitutes a field in which this process takes place and which empowers the individual to be creative. Creative individuals are defined as actors seeking to find their place in the relevant context to fulfil their goals by the dynamic interaction of resources in their deep structure, learned symbol systems and individual capabilities. Potentials in the context and individual are channelled by the creative process, a mental transformation, in which the individual redefines problems, finds novel solutions and tests them against reality. The artefact of this activity is a creative product, a communicable symbol, which is an improvement of previous ones and which the social organization deems creative.

To make a long story short, we may conclude that context is a field in which and for which creative output takes place. Striving to find their place in this field, individuals tap into resources residing in the field and in themselves and transform these into creative energy. They accomplish this by engaging in a mental process focused on finding new solutions to problems. The result of this process is a concrete product that in the view of the social organization advances the field in a creative fashion. This summary, while seeking to elucidate the essence of creativity, is still conceptually defective and even confusing. It has provided a description of the different schools of thought and of the perspectives adopted and attempted to link them together in a meaningful way. However, this process is still very much underway and more needs to be done. To that end, this paper suggests that conceptualization may best be achieved by combining the varying views and perspectives of the different schools. Based on previous theories and perspectives, the next section makes an effort to sketch an outline for a unified approach to creativity.

5. Entrepreneurial creativity – entrepreneur's capacity to generate novel economic artefacts

The previous section was rounded up by the conclusion that creativity is a system which, through the dynamic interaction of personal characteristics, social psychological context and cognitive processing, produces an output that the social organization in the field finds valuable (cf. Csikszentmihalyi 1988). Of particular significance in this formulation is the notion of interaction. Rather than a manifestation of a separate part of the system, such as specific personality characteristics, creativity is seen as the sum total of the various system elements. The theoretical framework adopted in this paper is the interactionist view, which posits that the individual and context are engaged in a dialogue and that behaviour stems from the individual's interpretation of this context. This makes the entrepreneur the unit of observation, although it might just as well be the organization, community or network. Although creativity research would benefit from a community-based approach, it has been left outside the scope of the present paper, which centres on the entrepreneur as an agent of organizational creativity.

As evidenced by the brief review above, creativity requires an entrepreneur, a context and a process as well as interaction between these elements to produce a novelty, such as a

business opportunity. This section aims at sinking its teeth into the heart of creativity and presenting its viewpoint on the topic. The goal will be achieved by finding answers to the following questions: what does creativity mean to the entrepreneur, what is its role or significance to her and how does creativity function within the entrepreneur.

In terms of the entrepreneur, the essence of creativity may be explored by asking what it means to the entrepreneur; or rather, what is entrepreneurial creativity. In other words, what happens within the entrepreneur, when she creates something new? What are the forces, desires or intentions that pull or push her forward? Then again, creativity might equally well turn out to be a commonplace and even constantly ongoing human activity, which just happens to produce something new and unique on particular occasions. Maybe creativity is at the core of the human experience, a key function that separates us from other, purely biological organisms. It has certainly been the subject of vehement argument across the centuries, particularly in conjunction with the relationship of mind and matter as the basis of human activity. Or, perhaps creativity can be reduced to a biological, chemical and/or electric activity, which is how brain researchers at the end of the day seem to conceive of it. Since human creativity spawns a multitude of questions, it is not only interesting, but of paramount importance from the standpoint of this paper to stop and reflect on what creativity really is. Although everyday thinking offers a host of answers, we are unlikely to get past the discussion stage. As a result, this presentation focuses on gleaned answers from the views and ideas that the different schools of creativity have expressed on entrepreneur creativity.

Personality. Attempts to explain the creative personality are many and varied, but this lack of unity is not necessarily a disadvantage (Woodman 1981) but an asset, helping to construct a many-faceted picture of it. By illustrating various aspects of creative personality, the different approaches in effect complement each other, providing valuable insights for the development of a more complete understanding of the phenomenon. Thus, the notion of creative personality is a composite of the various views presented by the different schools of creativity.

As the starting point for a description of creativity, this research contends that creativity is self-actualization (Maslow 1973). This starting point was chosen, because it treats the entrepreneur as a conscious agent with intentions, i.e., as a human actor, who proceeds purposefully towards an open-ended goal, driven by inner needs. Self-actualization is intimately bound up with the entrepreneur's social environment. Sought after, held in high esteem and self-fulfilling, creativity is tied to our historical context, our field of activity or our social networks. This is because entrepreneurs are neither separate entities, satisfying their own motives regardless of those around them, nor are they entirely social or institutionalized. Rather, they have a free will within the framework we, as rational agents with restricted abilities, are able to understand (see Tversky and Kahneman 1974). This paper treats the entrepreneur as a social psychological actor.

Creative personalities have internal intentions that drive them to realize their dreams (Rogers 1961). In this sense, the goal of the creative personality is self-actualization, and the means of achieving that goal are mustered from the deep structures of personality. Creative personalities have the ability to tap into the preconscious and conscious, and even to access the unconscious, and use the symbol collections found there as material for self-fulfilment

(Kris and Kurz 1981; Kubie 1958). Thus, they pursue their internal intentions under conscious control and exploit preconscious and unconscious deep structures to find an expression for their creative urges.

However, creative personalities must be able to give concrete shapes to their ideas, to express themselves and function within their environment (Guildford 1967). Consequently, they are characterized as possessing specific, and rather conspicuous, traits. These include being energetic, having a broad sphere of interests as well as a fascination with the aesthetic and the complex, being independent-minded and self-confident as well as self-reliant in decision making, intuitive, aware of the relative nature of all things and, finally, having a firm sense of self as creative (Barron 1969; MacKinnon 1978). By making the best of these traits, entrepreneurs are in constant interplay with their environment and realize their dreams and themselves as well as the potential creativity residing in the deep structure of their personalities.

In addition, these entrepreneurs need a tool for incorporating their creative ideas into preconscious and unconscious symbol structures for future reference. This tool is learning. Thus, creative personalities take in what they have learned and apply their learning to new situations (Skinner 1975). To sum up, we may conclude that the creative personality can be viewed in terms of self-actualization, whose content and concrete expression are drawn from the deep structures of the mind by means of personality traits and which, once learned, constitute raw material for further innovation.

In this way, the humanistic school provides a goal to creativity and the psychoanalytic a source, while trait theorists provide the means and behaviourists the tool for transferring knowledge to new situations. However, the creative process must also be carried out, and this is accomplished through cognitive processing. The personality-oriented and cognitive schools differ from one another in that the former looks at creativity as an expression of personality, while the latter places the main emphasis on active intellectual engagement. If the creative personality is a reflection of creative goals, sources, tools and an ability to transfer knowledge, how do these elements interact to produce an innovation? To find a concrete manifestation, creativity relies on the active realization of potential residing within the personality. Outlining this process is the primary focus of the next few pages.

Process. It is through the creative process that entrepreneurs seek to realize themselves (Sternberg 1988), as it allows them to fulfil the potential their personality holds. However, the creative personality itself does not generate a product; it merely sets a goal and provides a source from which to derive content, tools with which to work toward that goal and means of converting experiences into new sources of creativity. But the implementation of a creative product requires the concrete process of actualizing an entrepreneur's potential.

Broadly speaking, the creative process has been conceptualized as a cognitive event (Pesut 1990; Sapp 1992; Mellou 1996; Kirschenbaum 1998), which can be viewed in terms of its stages and its essence. The stages through which entrepreneurs progress in gradually giving a concrete form to their creative ideas are problem definition, information gathering, generation of solution alternatives, selection of a solution and creative outcome (e.g., Wallas 1926). Logical though it appears, the process is characterized by peculiar aspects. First of all, it involves a creative entrepreneur with a capacity to exercise fluent, flexible, original, elaborate and lateral thinking (Woodman and Schoenfeldt 1989, 1990). Despite having

discernible stages, the creative process is unpredictable in nature and produces unforeseen results. For example, the creative entrepreneur may take an unexpected turn or jump off the beaten path and head in a new direction, unguided by logical analysis. Moreover, the process is very fluent and flexible; if a particular solution model fails to address the problem, the creative entrepreneur changes the model and goes in pursuit of a more suitable one. A process that is both original and elaborate ensures that the outcome is also somehow unique.

To sum up, the creative process includes problem definition, information gathering, generation and selection of a solution and generation of a product. However, these stages can be found in the entire range of human thinking and are not specific to creativity. What really makes the process creative is its characteristic nature: creative thinking is fluent, flexible, original, elaborate and lateral in essence. The unpredictability and unexpectedness inherent in this type of thinking enable the entrepreneur to generate new ideas, resorting, at times, also to logical reasoning. Fundamentally then, at the core of the creative process are not the stages, since they can be assumed to be present in all human thinking processes. What is of paramount importance is the quality of the process.

Weaving together these diverse strands of thought on the essence of creativity, we arrive at the following: creativity is the expression of creative personality, which is the active agent in the creation process. Creative personality seeks self-actualization within the framework provided by the collective knowledge contained in the social context. To achieve its goals, the creative personality taps into its very own deep structures for material, and uses its personality traits as a tool for transforming this material into a creative outcome. Also learning is an instrument for transferring new material for creative exploitation. Through the creative process, the entrepreneur converts creative potential into genuine creative activity. This process has several stages: problem definition, information gathering, generation of solution alternatives, selection of a solution and, finally, the production of a creative outcome. Even this description does not suffice to truly describe the essence of creativity, because creativity does not take place in a vacuum. Entrepreneurs are always situated in a context, in which they conduct creative activities. This context will be the focus of the next section of this paper.

Context. Referred to as context, the creative environment in which entrepreneurs perform creative acts influences their personalities and processes (Amabile 1995, 1997; Amabile, Conti, Coon, Lazenby and Herron 1996). This environment also determines what is recognized as creative (Csikszentmihalyi 1988). Thus, though entrepreneurs may feel creative, the context may not confirm this belief, and it is the context that ultimately settles the matter. Social relationships, contextual factors and the entrepreneurs' social history (Woodman, Sawyer and Griffin 1991) create a context, which has a deep effect on what self-actualization goals they perceive as worth pursuing, what kind of deep structures they develop, how their personality traits evolve, what and how they have learned—and will learn—as well as what they process and how they process it. In this way, context prevails over all aspects of entrepreneur existence.

A creative context consists of three subcontexts: social, contextual and historical (Woodman, Sawyer and Griffin 1990). Of these, the historical subcontext, comprising entrepreneur experiences, can be viewed as having the most immediate influence on how entrepreneur

identities crystallize and what the entrepreneurs do. Also the social context, that is to say other people, has an instant, deeply transformative effect by the provision of evaluations, expectations, role models, support, rewards and punishments. Contextual factors, on the other hand, have a more indirect effect by setting up frameworks that, when unsuccessful, subdue creativity. Such contextual factors include culture, physical environment, atmosphere and different types of constraints. The environment either promotes or suppresses entrepreneurs' activities and quest for creativity, while creativity offers the environment a way of revitalizing itself and staying viable. Society progresses by drawing on the creative potential of its entrepreneur members.

What, then, is the essence of creativity? This paper seeks to provide a synthesis of previous studies to highlight the multidimensional essence of creativity. There are good reasons for adopting a multidimensional approach, because creativity is beyond a doubt a multifaceted phenomenon that does not easily lend itself to a single approach. The essence of creativity comprises three elements: a creative personality, a creative process and a creative environment. A creative personality is driven by an entrepreneur's need for self-actualization, which is enabled by calling on resources in deep structures of the mind, character traits that value goal-oriented work and a learning system that allows the transfer of knowledge. The creative process consists of several overlapping stages, namely, problem definition, information gathering, solution generation, solution evaluation and creative outcome and is characterized by fluent, flexible, original, elaborate and lateral thinking. The third element, creative context, incorporates a historical, social and contextual subcontext. The essence of creativity functions as a system in that the creative personality is either stimulated or suppressed by the context. When creative personality traits are activated to find ways of expressing themselves, the creative process sets in motion. In other words, the creative personality turns on the creative process. Once this process has produced an outcome, this outcome becomes part of the creative context, activating it either to encourage new ideas or to stifle them.

6. Discussion

This paper kicked off with a discussion on the nature of entrepreneurship. A crucial distinction was drawn between the traditional notion of entrepreneurship as the management and/or ownership of a small or medium-sized enterprise and the perspective adopted here. Building on work originally conducted by Schumpeter (1934), this perspective focuses on the entrepreneur's ability to recognize new business opportunities and innovate solutions, thereby creatively destroying existing business models and solutions. Having gained considerable support from recent research on entrepreneurship (e.g., Davidsson 2003), this view does away with the notion that entrepreneurship is not a valid function for already established business ventures. On the contrary, entrepreneurship is always present when an individual creates new business, regardless of whether it takes the form of setting up a new venture or expanding an existing firm using novel technology (Davidsson 2003).

Why should the entrepreneurial approach to business opportunity be regarded as a creative activity? Numerous studies show that the innovative activities of individuals produce changes in reality (Amabile 1988; Woodman and Schoenfeldt 1989; Puccio 1991). Creativity, manifesting itself in the form of unexpected, original and unique results, is a force that generates something that is better than what existed before. Saariluoma (1990) has

maintained that creativity is called for in the face of complicated novel problems for which no established solutions are readily available. Findings such as these seem to suggest that business opportunities are results of creative entrepreneurial activities, and that they can be considered as expressions of creativity, because their generation requires complex information processing and they lead to unpredictable and original solutions. This line of thinking has been followed by researchers such as Gilad (1984), who has asserted that business opportunities arise from creative behaviour and that the generation of new business invariably involves a creative component. Such a component can also be found in the work by Schumpeter (1934), for he has stressed the importance of creative destruction in entrepreneurial ventures. Also Leibenstein (1966) and Kirzner (1979) have emphasized the role of creativity for entrepreneurship.

What consequences does all this have on research focusing on entrepreneurial creativity and innovation? At the very least, we may conclude that since business opportunities are unique expressions of organizational creativity, they are quite hard to investigate. Complex and multidimensional, the task facing the researcher could be described as follows: creativity is like joining a game halfway through without knowing what the game is all about or what its goals are, and yet you are expected to grasp its essence and figure out what problem needs to be solved—and then solve it. In other words, creativity is not an activity, where all the pieces are known before the game begins, and the right solution is arrived at simply by arranging the pieces correctly (as in a jigsaw puzzle). Rather, it is a game, whose name, pieces, rules, logic and outcome have to be decided, while it is in progress. Having the skills to needed to play the game is a crucial success factor in the dynamic organizations of the digital age, but academic research and conceptual understanding of the phenomenon is lagging behind. As a result, this paper proposes that research into both private and public organizations should focus attention and resources on such dynamic organizational processes as entrepreneurship.

7. References

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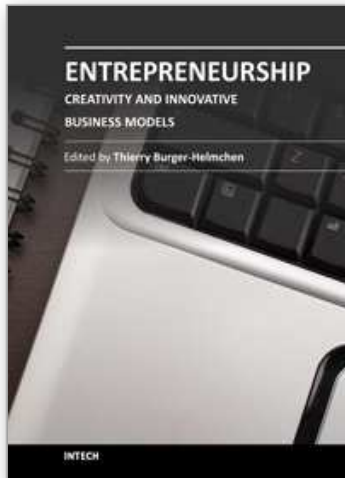
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What are the differences between an entrepreneur and a manager? According to Schumpeter, the main difference lies in the entrepreneur's ideas, creativity, and vision of the world. These differences enable him to create new combinations, to change existing business models, and to innovate. Those innovations can take several forms: products, processes, and organizations to name a few. In this book, an array of international researchers take a look at the visions and actions of innovative entrepreneurs to be at the source of new ideas and to foster new relationships between different actors to change the existing business models.

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