

COMPETITION ARCHETYPES AND CREATIVE IMAGINATION

Robin Matthews

Kingston University Business School

London

Academy of National Economy under the Government of the Russian Federation

Moscow

All the most powerful ideas in history go back to archetypes. This is particularly true of religious ideas, but the central concepts of science, philosophy and ethics are no exception to this rule (C.G. Jung in CW 8:342)

Introduction

Organizational studies have been deeply influenced by three separate streams of research. The soft sciences, including psychology, have provided important content about human behavior; the hard sciences have provided theoretical and experimental methodologies, as well as deepened our understanding of the material world; and economics has informed our thinking about how the human behavior interacts with the material world in order to survive. Attention to interconnections among the three streams can illuminate ways in which change agents can make more informed choices about processes and resource allocations. This paper makes a case for an interdisciplinary approach, one that includes not only the social and physical and life sciences, but also methodologies that have a long history in mysticism.

Specifically, this paper illustrates how the similarities and relationships between depth psychology, in Jung's theory of archetypes, and the "hard science" notion of complexity theory can reveal critical aspects of competition as expressed through capitalism. Although implicit in the discourse of competition, the contention that competition is an archetype is new and gives Jungian analysis a central role in the understanding of organizations. Further, the paper suggests that a methodology for accessing information about archetypes in general and capitalist competition in particular is through application of the tool of Creative Imagination.

Archetypes

Jung saw archetypes as primordial patterns, common to all human beings, affecting the way we perceive, imagine and think, and by structuring psychic apprehension, influencing behaviour profoundly (Stevens, 1982). They are paradigms, rules or schema: "active living dispositions, ideas in the Platonic sense, that perform and continually influence our thoughts feelings and actions" (CW 8:154). Jung imagined archetypes operating at the deepest level of the psyche, and originating in the collective unconscious. We cannot observe them directly; they are but general structures determining a probability field that encompasses a range of actual events, images and experiences (Jacobi, 1974; von Franz, 1975; Edinger, 1972). From the archetypes arise archetypal images (Jacobi, 1962)—universal symbols, myths and motifs—such as shadow, the anima, the animus, the wise man, the great mother, the hero, the father, the child, and the self (Jung, 1968, 1963, 1964; Neumann, 1955; Samuels, Shorter, Plaut, 1986; Samuels, 1985; Hillman, 1975).

Archetypes contain both light and dark aspects (Jung, 1940, 1963, 1969; Neumann, 1954), the latter often referred to as the shadow side. They embody contradictions (positive and negative, light and dark, yin and yang) (CW 9i: 271). In this way, archetypes have an *ambiguous* quality. Further, by means of their contradictory nature, archetypes unite opposites (*coincidentia oppositorum*) within themselves (hero renegade, wise man trickster, mother witch), which contributes to their mysterious, or *numinous*, character (Edinger, 1992). Numinous (from Latin *nuere*, which means "to nod" or "to give a sign," Von Franz, 1992, p. 21) bestows on something the quality of being a divine imperative. Numinosity describes the awe-inspiring effects of archetypes, their spiritual and emotional impact. Numinosity gives the an archetypal image an all-powerful God or God-like divine character, seemingly a universal drive, whose actions are beyond the governance of mere laws or cultural norms.

Given their numinous character, there is a risk that archetypal images can overwhelm individuals or entire collectivities (Hillman, 1975; Neumann, 1989). Jung points to the danger of

Succumbing to the fascinating influence of archetypes and that is most likely to happen when the archetypal images are not made conscious. If there is already a predisposition to psychosis, it may even happen that the archetypal figures, which are endowed with a certain amount of autonomy anyway on account of their natural numinosity, will escape from conscious control and become completely independent, thus producing the phenomenon of possession" (CW 9i: 82).

Archetypes are dynamic; they are and are capable of evolution through *inner and outer dynamics* (CW 9i: 50, 9ii: 279, 16:396), through their diversity of forms (CW 8: 417) and their interaction with one another in a network of relations (von Franz, 1975; Jung, 1968). Given that archetypes operate on different levels of being, to acknowledge archetypes is to affirm the proposition that an intermediate world exists between the sensory and the spiritual universes:

archetypes occupy the intermediate realm between the conscious and the unconscious realms. Similarly, in the Sufi tradition of Ibn Arabi, archetypes have an intermediate ontological status between the spiritual plane, and the plane of the senses and sensory experience.

Not do only religious traditions have common concepts with Jung's theory of archetypes, there are also parallels with "hard" sciences (Wheatley, 1992). Physicist Wolfgang Pauli believed that the psychologist and the physicist are on the same quest, and that archetypes are fundamental to understanding the laws of nature (Stevens, 1982). Archetypal fields share characteristics with complex adaptive systems (Kauffman, 1993, 1995; Holland, 1995, 1998; Bak, 1997; Holland, 1995, 1998) in that they both describe dynamic ordering principles, characterized by non-linearity, the possibility of evolution or emergence of new forms or structures, and ambiguity. Archetypes are ordering principles, determining a probability field. Archetypal images are reflections of the archetype, and so are governed by them. The metaphor also clarifies the relationship of archetypes to complex adaptive systems. Archetypes interact with one another. They form networks of relationships. Usually many archetypes are present in a given situation, bringing in the possibilities of surprise, uncertainty, and the emergence of novelty. Each archetype contains its own *inner dynamic*, a capability of self-adaptation, and each is subject to an *outer dynamic*, being influenced or contaminated by other archetypes. Below, therefore, is a brief elaboration of these characteristics of nature as postulated by complexity theory.

Complexity Theory

Complexity is the study of entities (atoms, neurons, molecules, ecologies, and central nervous systems) that have the potential for evolution (Coveney and Highfield, 1995; Kauffman, 1993, 1995; Pettersson, 1996; Marion, 1999). The evolution of systems takes two forms; (i) outer dynamics, variation in response to environmental pressures and (ii) inner dynamics or self-adaptation. The two processes taken together correspond to the dissipative systems (Prigogine, 1980; Prigogine and Stengers 1984), systems that are held in a state that is far from equilibrium by interactions with the environment. Rather than descending into maximum entropy, such systems may demonstrate the emergence of order out of chaos: A steady state thus captures the idea of timelessness.

Dissipative systems, like archetypes, also interact in networks of relationships (Prigogine and Stengers, 1984) by receiving energy and matter from an external source. These are part of their "outer" dynamics. They can go through periods of instability, but as long as there is some external influence to keep the system out of equilibrium, then it will persist in a steady state rather than collapsing into randomness. Prigogine is careful to stress that the dissipative processes are not deterministic in that any number of steady state outcomes are conceivable. Complex systems are adaptive in that the systems acquire information, identify regularities, and thereby build compare intended with actual outcomes. The capacity to learn from experience is part of the adaptive process, especially in social systems (Holland, 1995, 1998; Simon, 1996).

In addition to the outer dynamics, complex adaptive systems have inner dynamics as well. Non-linearity arises from the interdependence among elements of a system whose value (elements plus linkages) is greater than the value of the elements alone. This allows for emergence insofar as an interconnected system is qualitatively quite different its constituent elements. (Water, for example, is neither gaseous, nor flammable, properties of both of its constituents.) In this way, ambiguity arises from the diversity of characteristics arising from different "levels" of the system and the emergent and unanticipated characteristics that flow from the interactions among them.

A key element of complex adaptive systems is that of attractors, including equilibrium points, periodic orbits, and chaotic (strange) attractors (Kauffman, 1993, 1995; Devaney, 1988). Point attractors are the simplest form; in this case systems converge to a single point or equilibrium. A system with no dynamic (internal or external) will converge to maximum entropy or minimum capacity to perform useful work. Periodic orbits are the next level of complexity; here the attractor takes the form of a cycle and a system caught in a periodic attractor is confined to a particular pattern of repetitions. Possibilities of evolution are associated with chaotic attractors. Systems caught in such attractors are confined within a particular basin, which has evolutionary or emergent properties. In a strange attractor, points that originate arbitrarily close to one another become exponentially separated as time goes by. The system is sensitive to initial conditions.

Complexity theory was designed to address many kinds of complex, adaptive systems—both material and social. It is therefore particularly well suited for the discourse of economics, whose focus is the interaction between social and material systems. In this way, many of the concepts of complex adaptive systems inform organizational studies about economics in general, and the competition-based system of capitalism in particular. Also, given the correspondence between complexity and archetype, the correspondence between complexity and competition increases the scope of archetypes, and explains why capitalism is self-adaptive. Before that claim is developed, a brief description the capitalist economic system as informed by complexity theory is presented.

Competition and Capitalism

Competition describes the interaction of individuals who share a limited environment: it includes both co-operation and rivalry (Porter, 1985). The basic concepts of competition, value, cost, consumption and production, are shared by capitalist and socialist economies (Schumpeter, 1954). Competition encompasses many forms of social organization. It includes both co-operation and rivalry. The same principles, value, cost, production, consumption equally in a socialist as in a capitalist economy. Schumpeter (1952) defined capitalism as a private property economy in which innovations are carried out by means of borrowed money. The critical differences between capitalism and socialism are contained (i) in the form of property ownership, and (ii) the distribution of the surplus (the excess of value over cost in production) created by the system. Writers, by no means all sympathetic to socialism, defined analogous systems of equations describing equilibrium for centrally planned and market economies. Competition is, therefore, an ordering principle in society.

For Adam Smith, it was a means of reconciling conflicting self-interest. In the neo-classical tradition that has influenced strategy and organization theory as well as economics, markets create basin of attraction via negative feedback systems (pictured by supply and demand diagrams in standard texts). In the tradition of Pareto it is a route to economic efficiency (Smith, 1969,1981; Walsh and Gram, 1980). According to this view, firms seek competitive advantage and once this is achieved it creates a basin of attraction for rivals seeking to replicate the methods of their successful peers who, if they are to sustain their superior position, must innovate, or create core (unique, non replicable capabilities), or erect entry barriers.

In the Austrian tradition, it provides the kind of distributed information system that, as Hayek forewarned, makes capitalism infinitely more durable than centrally planned economies (Hayek, 1945). The Austrian School (Hayek, 1945; Menger, 1883) diagnosed market systems as efficient attractors for the following reasons; (i) they economize on information (no individual or group needs global information, only local information, relevant to a particular decision), (ii) they provide appropriate signals (prices), and (iii) they offer incentives (profits). In finance, stock prices are traditionally described as informationally efficient (embracing true information about firms); point attractors, or periodic attractors, in which downturns provide necessary corrections to misguided over investment, or over exuberance.

Markets free of monopoly power are sometimes taken to be the normal case, covering most business situations. Deviations from competition, monopoly or imperfect competition are taken care of by occasional recognition, or as temporary structures required to accumulate profit for innovation (Schumpeter, 1952). Sometimes such deviations are significant dragons, attractors that threaten trap economies in inefficiency (Smith, 1759, 1776). The tradition of Pigou (Walsh and Gram, 1980) recognizes the importance of market failures in relation to social cost and pollution, and recognizes the need for state intervention. Marshall's analysis of externalities (network effects) can be seen as a rationale for protection rather than free markets. However, resurgence of interest in network externalities in analysis of the new economy (Shapiro and Varian, 1998), or in the explanation of competitive advantage (Porter, 1985) in terms of clusters of co-operative and rivalrous firms, is set firmly in the tradition that market systems are attracted to efficient solutions.

In the late twentieth century, self-reinforcing mechanisms that are characteristic of complex adaptive systems set in. Interactions between shorter product cycles, resulting from faster technical change, and increases in investment cost, creating the need for financial capital, required large global markets, both to sell products and to cheapen resources. At time when governments abandoned Keynesian or demand creation at the macro level, international firms espoused it, as a way of recouping costs and increasing profit.

The robustness of capitalism also stems from its self-adaptive capabilities: inner dynamics. The idea of inner dynamics is captured by the network metaphor. Generally capitalism is defined by private property and financial capital. New capitalism emerging in the late twentieth century has the same structure as previous evolutions, resulting from the interaction between international finance, rapid technological change (especially in the information, communication and telecommunications and biotechnology industries) and private ownership. But certain features distinguish new capitalism qualitatively from earlier evolutions: emphasis upon networks, information, interdependence, and disorganization.

In a Schumpeterian world, competition and technological change are dynamics of capitalism (Schumpeter, 1939; 1952). Schumpeter was in no doubt about capitalism's capacity for evolution, and the same point was emphasized by Marx (Schumpeter, 1952; Marx, 1969). The process they describe is outer dynamics. Chance variation in organizational capabilities, and natural selection driven by technological change, result in the evolution of the system, through the creation of new products, new markets and new production techniques.

Thus competition, as an organizing principle, contains mechanisms (inner and outer dynamics) for the emergence of new forms of capitalism. Modern writers stress the disorderliness new capitalism. In contrast to earlier industrial societies, that were organized and national, new capitalism is disorganized, global, and chaotic. The feedback systems in the chaotic attractor are capable of upward or downward trajectories. In new capitalism productivity and competitiveness depends upon networks of relationships between firms that cross national

boundaries. Interdependence, intensified by fast information flows, brings risks of disorganization and chaos. Actions in any one part of the system cannot be isolated and produce wildly divergent trajectories.

Thus in Schumpeterian terms, order emerges within disorder - creative destruction. In his analysis, capitalist growth, stimulated by technical change, takes the form of periodic attractors; business cycles, and building cycles (Schumpeter 1939). Considering long period economic growth Schumpeter adopted Kondratieff's (Dujen, 1983) analysis of capitalism as evolution interrupted by violent crises. This is akin to the notion of punctuated equilibrium; (Gould, 1994) long periods of relative stability, interrupted by periods of violent change.

That is, at times competition creates chaotic attractors. Sensitivity to initial conditions in the form of sudden swings between optimism and pessimism, sabotage by disillusioned intellectuals, and internal contradictions bring about crisis. As self-reinforcing mechanisms (or positive feedback systems), capitalism has the potential for prodigious growth: The self reinforcing process is one of positive feedback: global markets intensify competitive pressures on firms, speeding up technological change intensifying the need for financial capital, which is also needed to support global consumption, and foreign direct investment. However, at the same time, evolutionary progress includes the possibility or even the high probability of self-destruction.

Complexity theory thus explains the "what" of capitalism, and a certain amount of the "how." It shows us how capitalism yields these periods of disruption that threaten human societies and human welfare. Complexity theory is very concerned with information, which has always been the ultimate resource: technology uses knowledge or information as the basic input. In an economic context, nature's laws become software, means of producing goods and services, using mechanisms such as hydraulics, thermodynamics, electro-magnetism, gravitation, and leverage. However, a distinctive feature of new capitalism is that the information content is more explicit, not only in production and consumption, but in the concentration information in the form of images, symbols, and brands. That is, the new capitalism is increasingly concerned with issues of meaning.

These two immediate and critical concerns of capitalism—its underbelly or shadow side and the need for meaning—severely challenge the complex adaptive system of today's economy. The current globalization process has contradictions, including regionalism, nationalism and ethnicity. Few states in new capitalism do not pay at least lip service to free elections and free markets and democracy are often connected, but neither South Korea or Chile in the 1970's and 1980's suggest that there is any necessary connection between democracy and new capitalism. The world economy has grown by more than 40% over the last ten years, but the World Bank estimates that the number of people living in poverty (less than \$1 per day) grew by 1.2 billion between 1987 and 1998. 32% of the developing world lives in poverty: the proportion of poor living in Latin America and Eastern Europe has increased over the last twelve years and in some nations of sub Saharan Africa the proportion of poor exceeds 50%.

Thus, the contradictions, ambiguity, multiple levels of operation, and link to complexity theory of modern capitalism make it very difficult to understand, and make managing for meaningful change nearly impossible with traditional methods. Because both competition and archetypes are ordering principles, an application of Jung's description of archetypes to the capitalist system of competition is appropriate. Further, archetypal analysis is particularly apt for the issues of disruption and meaning, the two critical concerns of today's capitalist system. The following section applies archetypal theory to organizations, thereby extending the scope of Jung's claim for their power.

The Archetype of Competition

In applying the Jungian notion of archetypes to competition, this paper is employing a symbolic trope, also in the domain of Jung. Symbolizing competition as an archetype is merely a

helpful means of comprehending and making use of the non-rational and intuitive realms of functioning. In analytical psychology, Jung's development of new scientific categories can be compared with a similar approach initiated by the modern physicist. In both cases the subject matter defies comprehension in accustomed rational categories; hence symbolic "working models" or working hypotheses, such as the archetype or the atom, had to be set up in order to describe as adequately as possible the way an otherwise indescribable acts in the world of matter . . . We cannot speak of [such matters] as a thing that *is* or *does* this or that. At best we can speak of it indirectly by describing human behavior *as if* it expressed aspects of a hypothetical pattern of meaning, *as if* a potential, encompassing wholeness were ordering the action of the parts . . . The most basic hypothesis about the [matters] with which we deal here is, then, that of a pattern of wholeness that can only be described symbolically. (Whitmont, 1969, p. 15)

This section therefore uses the language and concepts of archetypes to get a better understanding of economic change in order to develop new thinking about how to manage it. Consider, then, that competition is the originating archetype and capitalism is one of its images in the social sphere. Archetypes contain their opposites. In the case of competition sometimes we have the possibility of a reconciliation of opposites; individual selfishness resulting in the

welfare of the community, inflation being overcome only by depression and unemployment. Sometimes perpetual conflict results as in the struggle for competitive advantage.

Numinous aspects of archetypes are apparent in writings on competition. The Invisible hand, the metaphor of a beneficial social order emerging as an unintended consequence of individual human action, is so important that some consider it made theoretical social science possible (Vaughn, 1989). Religion has been seen as a dominant factor in the evolution of capitalism. The discourse of pro-market politicians has contained quasi-religious metaphors and a certain righteousness. Sometimes the compelling aspects of competition are expressed in the sense that governments are powerless in the face of global competitive pressures. The interdependence of new capitalism has given rise to a convergence of economic cycles worldwide as manifest in the current global recession. The rise of new capitalism has been accompanied by a reaction, a *coincidentia oppositorum*, in the form of a rise in religious fundamentalism.

Many archetypal figures are present in narrative of competition; not only the hero, and the dragon, but the trickster (the financier, the trader, the take-over artist), the wise man (the analyst, the scholar, the expert), the shadow (the monopolist, the tycoon, the black marketer and socialism the shadow system). In organizations, the hero archetype may be projected onto mechanisms; the corporate plan, privatization, business process engineering, the brand. The hero, in many guises (the innovating entrepreneur, the inspired leader the consumer, the government, the Fed), may be capable of slaying the dragon (depression, unemployment, social instability, debt) that threatens the images of competition system. The proletarian hero may transform the capitalist dragon into something different from itself. Hermes, God of markets, expresses many aspects of the archetype of competition through his own character and through his network of relationships with other archetypes. Hermes (Mercurius) is at once hero, trickster, inventor, and criminal, associated with markets, trade, property rights, cultivation (Samuels, 1993; Matthews, 1999), the patron of good fortune, merchants, thieves, athletics, and cultivation. He is also the son of Zeus, and brother of Apollo.

Because it is complexity theory that draws attention to the contradictions of capitalism, then applying the three discourses simultaneously can give us a way to talk about the current problems, in order to more adequately develop a methodology that can address them. By linking archetypal psychology, complexity and the elements of mystical, especially Sufi methodology (Ibn Arabi, AH 1302), to the study of organizations, the “common background of microphysics and depth psychology” that Jung spoke of, is extended (CW 14: 768).

Archetypes can be compared to basins of attraction that have a magnetic effect, in the sense that delineate a set of possibilities. Distinguishing competition as an archetype from its diverse reflections is akin to using Adam Smith’s concept of the Invisible Hand to link the spiritual and material worlds. The concept is restated by Menger (1883) as an organic understanding of social phenomena and re-emerges as spontaneous order (Hayek, 1945, 1973). The Invisible Hand forms a basin of attraction in the equation systems (or fixed-point theorems) of Walrasian economics (Arrow and Hahn, 1971).

Archetypes are universal concepts determining a probability field. As attractors they function rather like loosely defined rules of a game, that encompass perhaps an uncountable set of possible moves – rules that vary according to circumstances of time and place. In the language of statistical mechanics, the competitive archetype prevents a system from wandering ergodically through all possible states. Instead they confine it to a subset of states.

It is the shadow aspects of competition are suppressed currently; this is especially apparent competition is seen as a phenomena possessing archetypal power. Competition is considered to have the archetypal characteristic of timelessness, as in the discourse of myth and particularly fairy tales when the familiar ending, *they lived happily forevermore* is the counterpart of the steady state. The possibility that archetypal images may take a chaotic form strengthens their affinity with complex adaptive systems. Their numinous aspect links archetypes to the narratives of science, myth and mysticism.

Consider, for example, the fervor that accompanies much of the rhetoric about the value of capitalism. This is evidence for the numinosity of the archetype, which puts blind adherents at risk for a predisposition to psychosis. Policy makers have fallen under the spell of competition, advocating market solutions irrespective of their appropriateness; for example, in transition economies, and in the provision of public goods such as health, education, and social insurance. This referred to in the introduction. Stockholder interests are too prominent in the prescriptions that scholars and politicians advocate for organizations. Issues of efficiency are artificially separated from those of distribution. Working conditions and security of employment are subordinated. Briefly, the numinosum of the competitive archetype has brought about neglect of the dark side of competition, and so the archetype needs to be reinterpreted.

As an archetype, competition is dynamic in that its images change through time, and have potential for evolution. The erratic behavior of the recent past suggests that attractors may be chaotic, and that the financial system may itself be the kind of trickster capable of luring the capitalist system into an abyss. Writers as widely dispersed ideologically as Malthus, Ricardo, Marx, Schumpeter, and Keynes point out, in different ways, that competition can lead to disorder and crisis; slump, mass unemployment (Keynes, 1936; Walsh and Gram, 1980). Archetypal thinking,

suggests the possibility of averting a catastrophe. In setting out a field of perhaps vast numbers of possible outcomes, complex adaptive system of competition shares characteristics with archetypes: especially non-linearity, possibilities of emergence, and ambiguity. So, for example, if an organization or society is in a strange or chaotic attractor, a decision—that in the context of other attractors would be insignificant—can transform it completely, in the same way that hero archetype can transform a situation.

Archetypes express the potential that stems from the source of their numinosity: they are active with respect to the lower, in that they exercise a determining power over all possible things in the sensory world. In Ibn Arabi's metaphor, "*I was the hidden Treasure, I yearned to be known. That is why I produced creatures, in order to be known in them*" (Corbin, 1969). How can we creatures know the Treasure, and guide ourselves, individually and collectively, into wholeness and shared welfare within our economic system? How can a change agent know what decisions might make all the difference in a chaotic situation? It is here, especially, that Jungian ideas can help individuals and collectivities become meaningful change agents amidst a chaotic situation. In particular, valuing the image and the imagination can lead to a methodology for understanding and participating in world making.

There is a traditional rationalistic bias toward asserting the concept as the basis for thought, subjugating the image to either a distortion or an assistant to the more important concept. We have a negative view of imagination, except in relation to works of art, which are seen as gratuitous in the face of solid technological achievements. However, given the limitations of the concept to adequately represent systems characterized by non-linearity, possibilities of emergence, and ambiguity, Jungian and other mystical traditions' suggest that the power of the image could offer a methodology for interpreting and responding to the complexity of our current economic system. So to speak, although it is manifest in a particular form or image, source of the *treasure is hidden* in an archetypal world but a process of creative imagination may reveal it. Creative imagination, a notion that spans Jungian and mystical traditions (CW, 9i: 59, 53, 351, 352; Hanna, 1981; Johnson, 1986; Neumann 1989; Spiegelman, 1991), is a methodology that offers wider perspectives (Jung, 1933, 1940)ⁱⁱ. The final section of the paper, therefore, introduces this methodology.

Competition and Imagination: A Methodology

In contemporary competitive discourse, strategic analysis amounts to figuring out alternative scenarios (strategies, competitor responses, reactions to the business environment and so on), assessing their probabilities, evaluating likely outcomes, and making recommendations. The capability of machines in solving complex combinatorial problems of this kind is immense. The implication is that strategic analysis increasingly an issue in which simulation techniques are used to identify alternative scenarios. There is no longer a scheme of reality that admits an intermediate universe between the realm of sensory data (empirically verifiable) and the spiritual universe (accessible only by faith).

Archetypes occupy that space, and are accessible to Creative Imagination (Corbin, 1969,1995; Izutsu, 1983; Chittick, 1989). Archetypes and archetypal images occupy different levels of being. Archetypes affect the sensory world but are not part of it. They stem from the collective unconscious. The worlds of the unconscious, of myths, dreams, and fantasy are more unitary than the ordinary world in that there are no longer polar opposites. The extent of unavoidable ambiguity and loss of distinctiveness increases as we approach the (deeper) level of the archetypal world. By linking archetypal psychology, complexity and the elements of mystical, especially Sufi methodology (Ibn Arabi, AH 1302), to the study of organizations, the "common background of microphysics and depth psychology" of which Jung spoke is extended (CW 14: 768).

The negative connotation of imagination and its association with delusion has been noted earlier. The view of imagination taken here is quite different. Creative and Active Imagination are sometimes treated as equivalent, but it is useful to separate them. Active Imagination (Johnson, 1986) has specifically Jungian undertones, whereas Creative Imagination (Corbin, 1993, 1995; Izutsu, 1983) embodies a mystical, particularly Sufi, methodology (Spiegelman, 1991).

Jung's discovery of active imagination arose from his early work with patients. He noticed universal religious and mythological symbols arising in their dreams and fantasies, which he took as evidence for the spontaneous eruption of archetypal images from the unconscious. Archetypes themselves, he believed, were inaccessible to direct observation, so he began examining the images that arose in his own dreams and fantasies. Using Active Imagination, he induced a flow of dreamlike material in a waking state, material that he linked to religious symbolism, mythology, tribal lore, and alchemy. Using the process of active imagination for accessing information regarding universal archetypal structures, Jung had, in fact, rediscovered a technique with a long history in mysticism. Creative Imagination involves the same contemplative processes as Active Imagination. Both see the archetypes as accessible to imagination. Creative Imagination has the deeper methodology, founded on three fundamental notions.

- i. Creation itself is the *act of divine imagination*, and everything that exists is an expression of the *act of divine imagination*.
- ii. Archetypes are passive in the sense that they are reflections of higher levels of being (the Creator, the Absolute, the unconscious – whatever is the preferred expression). They are active in that everything that exists in the phenomenal (sensory, empirical, conscious) worlds are reflections of them.
- iii. It follows that everything existing in the phenomenal world is a reflection of the spiritual world. This is the meaning of Jung's *unus mundus*. And archetypes are to their images as mirrors are to their images.

Roughly speaking, archetypes act like a compendium of rules of a game; for example a complex game of chess, which is subject, not to a single law, but a set of laws, interacting with one another, so there is always a degree of ambiguity. It is helpful to see them in relation to a metaphor of landscapes. Consider a landscape that is rugged and uneven, with peaks and troughs, mountains and valleys, a creation of infinite possibilities, under continuous transformation over time. Travellers explore the landscape, having (more or less) common purposes. They have inherited rules (archetypes) that determine loosely which routes are possible, and which not.

The landscape sets out the potential, containing all possible journeys: the rules or archetypes separate what is feasible from what is impossible. The rules themselves are unobservable, but are recorded in *maps or patterns* in the form of myths, stories, rituals, norms and other archetypal images. Travellers cannot wander (ergodically) over the whole landscape. They are restricted, but because there is a network of laws (archetypes), new routes can always be revealed.

Imagine further that there is not one landscape, but a set of parallel landscapes, corresponding to different levels of being (or consciousness), all part of the same world (Jung's *unus mundus*). Suppose each traveller possesses to a varying extent, the ability to visualize the terrain as it is (and the archetypes as they are): visualisation here is Creative Imagination. The mystical understanding of the metaphor is the sense that the landscapes are themselves acts of Creative Imagination. Creative Imagination brings them into consciousness: rescues them from the darkness - another way of understanding the proposition, "*I was the hidden Treasure, I yearned to be known. That is why I produced creatures, in order to be known in them.*"

The surprising thing is that even with vast numbers reiterations of simulation models (defined according to specific rules or control mechanisms) just a few patterns emerge. This is an important assertion, which I leave for discussion elsewhereⁱⁱⁱ. Suppose however that strategy (in practice and in scholarship) converts to such a methodology. What is the role of human beings? What can they bring to the problem? What can human beings contribute qua human beings? Programme and software designers? I think not just that. Their real purpose may come into play. Freedom from calculation, from purely rational approaches opens up all kinds of possibilities. Let us focus on one optimistic scenario. Questions of feeling, ethics, intuition, creativity may come to the forefront in the study and practices of organizations. Should we also say, questions of soul?

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ⁱ References in the text to Jung are mainly taken from *The Collected Works of C.G. Jung*, edited by H. Read, M. Fordam, and G. Adler and published by Routledge & Kegan Paul, London, 1953-78 (CW). Quotations are indicated by the volume number followed by the number of the paragraph from which it is taken (e.g. .CW 8 para, 154).

ⁱⁱ The methodology of Creative Imagination is the subject of the paper, not techniques, which are part of many traditions, including the Sufi way.

ⁱⁱⁱ See for example Holland (1995,1998) and Kauffman (1993,1995). Also Matthews (1998) and work of International Business Centre at Kingston University.

Table

ARCHETYPES	COMPLEX ADAPTIVE SYSTEMS	COMPETITION
Archetypes are universal ordering principles. They define a probability field.	The study of macroscopic collections of entities that are capable of evolution.	An ordering system principle over the interaction of individuals or groups in a limited environment.

<p>Archetypes are distinct from the archetypal image.</p> <p>Archetypal images are diverse</p>	<p>Complex systems include physical systems (the central nervous and immune systems, ecologies), social systems (global business, organizations), simulated systems (genetic algorithms, neural networks, pattern forming systems)</p>	<p>Varieties of capitalism and socialism are expressions of competition in the social sphere.</p> <p>Diverse interpretations of competition exist; negative feedback systems, self reinforcing mechanisms, information systems, periodic, point and strange attractors.</p>
<p>Archetypes are dynamic, evolutionary, and emergent.</p>	<p>Evolution and emergence takes place via <i>outer dynamics</i> (interaction with the environment) and <i>inner dynamics</i> (self-organization).</p>	<p>The evolutionary properties of competition long recognised. Marx and Schumpeter saw capitalism as a self-adaptive system.</p> <p>New capitalism emerged in the late twentieth century.</p>
<p>Archetypes contain ambiguous contradictory elements.</p> <p>Archetypes contaminate and interact with one another.</p> <p>Archetypes contain light and dark (shadow) sides</p>	<p>Complex systems contain ambiguity; possibilities of order and disorder, randomness and chaos, determinacy and indeterminacy.</p> <p>They contain non-linearities, self-reinforcing mechanisms.</p>	<p>Interpretations of competition and capitalism its image include equilibrium and disequilibrium, stability and instability, evolution and catastrophe.</p> <p>Economies, organizations and systems work as multi layered networks.</p> <p>The planned economy is the dual (or shadow) of a market system.</p>
<p>Archetypes have a numinous, compelling and awe inspiring impact.</p>	<p>Systems may be NP complex. Adaptation is a mysterious process. No underlying algorithm or pattern may exist.</p>	<p>Markets have a compelling impact upon policy makers who often ignore the shadow aspects.</p> <p>The notion of the Invisible Hand made theoretical social science possible.</p>