

Creative Management: A Predicted Development from Research into Creativity and Management

Fangqi Xu and Tudor Rickards

A proposal is made for the establishment of a conceptual domain of Creative Management by fusion of two related bodies of knowledge, that of management studies and creativity. Through an examination of examples from around the world, we show how Creative Management is appearing in embryonic form as a global possibility, emerging from and enriching the predominantly American contributions of earlier stages. We suggest that such a development will take management studies forward from its historical trajectory, through the global convergence of organizational theories and practices. The proposed synthesis of creativity and management indicates the possibilities of a new stage in management incorporating humanistic, socio-technical and knowledge management components. Collectively, the conceptual shift is towards what we have labelled *Toyotaism*, in acknowledgement of practices and theorizing developed from the integration of Western and Eastern belief systems and theories in action.

Introduction

Based on studies in various international locations, we suggest that current understanding of organizational effectiveness is limited by historical assumptions and models. Recent decades have seen various attempts to demonstrate a crisis, calling for a rethinking of organizational theory (see, e.g., Alversson & Wilmott, 1996; Clegg, Hardy & Nord, 1996, 2006; Burrell, 1997). The various critical voices concerning a crisis in organizational theory include reference to an absence of 'some model of humanity' (Collins, 2000) required to permit an explanation of the sociological and contextual elements (Smelser, 1994). While there are those who would retain the essential elements of organizational theory based primarily on measurable and structural elements (e.g., Donaldson, 1988, 1996), the debate persists, while research accommodates conflicting belief systems or paradigms (Burrell & Morgan, 1979; Pfeffer, 1993).

Creativity has been offered as a concept with potential in this debate. Specifically, the movement was accelerated by management consultants such as Tom Peters (1988, 1992) who justified the need for creative destruction,

invoking the radical economist Schumpeter (1934). Support for a creativity imperative for organizational success can be found in the innovation school of writers such as Kanter (1985, 1989). Critical theorists, in contrast, challenge the corpus of dominant management theory, remaining suspicious of the notion of creativity as part of a rhetoric of 'fads and buzzwords' (Collins, 2000).

In an examination of creativity within business school courses, Rickards (1999) suggested that the major modules of the international MBA degree concealed creativity, which was a kind of sleeping giant within decision making, strategy, marketing, innovation, leadership and management of change electives, and largely unnecessary within a business degree grounded primarily on neo-classical economics. A review of a decade of contributions to Creativity and Innovation Management led to the proposal that much remains to be done to research relationships between innovation, creativity and knowledge management (Rickards & Moger, 2006).

We have extended the scope of that review in this paper. We survey the practices associated with so-called creative organizations around the world, paying particular attention

to European and Asian materials, and seeking to compare them with the more widely-reported American companies and theorizing. Overall, we arrive at the proposition that creativity has yet to gain acceptance as being relevant for organizational theorizing. The implication is that creativity and management studies remain domains which have failed to become harmonized to mutual benefit. The merging of Western and Eastern concepts suggests an emerging conceptual shift, which we have labelled Toyotaoism.

Approach

Considerable difficulties were encountered in examining a voluminous literature within which terms such as creativity and creative management were left undefined. To arrive at some common platform of understanding (Rickards, 1999; Rickards & Clark, 2005), we will offer a set of features from which we derive a provisional definition of creativity, creative management and Toyotaoism. These remain open to subsequent debate and reformulation. Before providing the definitions, we reflect on the epistemological issues involved. We then outline the survey.

Epistemological Issues

Creativity is a construct that has invited many definitions. The multiplicity of definitions has been assumed by some researchers to be a consequence of a lack of understanding of some identifiable and universal construct. Other theorists have suggested that the construct has been studied from multiple perspectives or paradigms, or that there are various constructs sharing a portmanteau or all-embracing term. These views have also been taken to suggest alternative belief systems, leading to different linguistic and conceptual treatments of creativity. We accept the absence of a universally accepted definition of creativity, grounded in a universally accepted theoretical position. Nor do we believe in the possibility of such a definition that will unequivocally frame the essential features of creativity. In this sense we espouse what Grint (1997) terms a non-essentialist understanding of reality. We offer a definition which accords with an interpretivist epistemological stance. This conceives of meaning as a matter of sense-making, open to revision consequential on explorations and refinements through practical experiences and conceptual proposals within a community of practitioners and theory builders. Such an approach is consistent with that proposed by researchers such as Drazin, Glynn and Kazan-

jian (1999). Its viability ultimately stands or falls in its acceptance by those who are engaged in managing, understanding and reconceptualizing organizations.

Creativity

Drawing on Amabile (1983), Rickards (1999), Rickards and Moger (1999) and Sternberg (1999) we offer a provisional characterization of creativity as the process through which individuals and groups arrive at ideas that are new and valued to those individuals, groups and others within their wider communities of practice.

Creative Management

Creative management is the study and practice of management, drawing on the theories of creative processes and their application at individual, group, organizational and cultural levels.

When capitalized, we are applying the term 'Creative Management' in a formal sense to distinguish a fifth stage in the practice of management, emerging from the historical theories and practices of management from earlier stages. When uncapitalized, the term is used in a less formal sense to refer to a management style which will become associated with the emerging fifth stage of management. Further work will help in its characterization, as suggested in Rickards and Moger (2006).

Toyotaoism

This is a neologism. The concept was introduced and has recently attracted discussion in internet discussion postings (Rickards, 2007). The term acknowledges the origins of Creative Management as a shift away from the Fordist philosophy and industrial methods of the early 20th century, towards a more creative and humanist culture and emerging from procedures pioneered at companies such as Toyota. It implies a fusion of Western and Eastern methods to incorporate into organizations a more Eastern philosophy of harmony and respect – for the environment, customers and employees.

The Survey

We have undertaken a study in which we explore the diffusion of ideas in management thought and practice. To achieve this we have conducted a historical study of creativity for

Table 1. *Five Stages of Management Theory***Stage 1: 19th–20th Century**

Rational Management (USA Fordist and Tayloristic contributions provide Production line efficiencies)

Stage 2: Early 20th Century

Incremental innovations (Japanese Total Quality approaches with structural sub-groupings provide further efficiency gains)

Stage 3: Mid-20th Century

Humanistic experiments (European and American efforts to achieve individualized motivation within organizations and for welfare of employees)

Stage 4: Late 20th Century

Organizational Creativity (Institutional efforts to achieve more creative organizational practices and results).

Stage 5: 21st Century

Creative Management (Globalized efforts achieve better diffused and integrated knowledge transfer of creative theories and practices)

Creative Management is emerging currently from the processes of Stage 4, and offers focus for revitalizing management theory and practice. Imitation and adoption through mimesis of the practices associated with successful companies will accelerate the transition to Stage 5

its significance for management studies (and by implication the significance of management studies for creativity).

We took as another assumption that creativity studies have developed into what some scholars have called a domain. This is a term that has much in common with the notion of a paradigm or body of knowledge. Within that domain, we consider the dominant innovating forces have come from the United States. The evidence may be found in the origins of the most cited theories, and scholars and scholarly sources. Management studies can point to a more differentiated set of influences, although the Western (and American) models are again prominent. We determined to explore beyond the dominant paradigm, to test any emerging ideas in the context of globalization, and knowledge transfer processes. To achieve this, we looked for patterns of thought in other contexts. We concentrated on the domains of creativity and management in Asia (specifically in Japan and China) and Europe (the United Kingdom and Western Europe, particularly Scandinavia).

In order to reduce the scale of search, we further focused our attention on the archives within the leading networks of creativity practitioners in Europe and Asia, drawing on publications and conference proceedings. We relied on the sub-set of materials within these sources to provide understanding of the culturally dominant beliefs about management and organizational theories. In this way we hoped to achieve a triangulation of cultural beliefs.

To achieve some simplification, we have assembled the materials identified to indicate the evolution of four major shifts in management, thinking, and proposed a fifth, emerging stage of Creative Management.

Management Theory: A Historical Overview

Our survey suggested that management theorizing has progressed through four stages which are partly overlapping in time. Furthermore, we show how the stages have indicated attempts to overcome perceived weaknesses of management theory applied in practice, achieving some gains in creativity, and point to a fifth stage, that of Creative Management. Our intention in this paper is to begin to sketch out the kinds of practices and theoretical principles that would repay subsequent examination in the proposed new domain of creative management. To add concreteness to the discussion, we have selected exemplary organizations to study more deeply the range of practices associated with contemporary creative companies and provide indications for future theorizing and creative practices. The five stages are shown in Table 1.

Stage 1: The Fordist Revolution

Although the Industrial Revolution came about first in Britain, America's achievements have superseded all others in fields such as the

establishment and operation of enterprise, employee productivity and cost control, the influence of human relations, investment and collection of capital. For want of space, we restrict our outline of historical trends to those widely accepted in scholarly summaries. They reflect the perspective provided in curricula to be found in today's international business schools, often taking their lead from the most prominent American establishments.

The emerging giant companies of the late 19th century in America had retained problems of workers' performance which always under-achieved plans and expectations. In the early 20th century, Frederick Taylor (1911) established rationality and organization as theoretical concepts, offering significant applications such as payment of a piece rate, and more structured managerial processes. These ideas founded the scientific management movement which was to become dominant in the history of management for the following century.

The subdivision and standardization of work were promoted through the spread of scientific management. Also, they were related to the birth of the Ford system of production lines which represented a new manufacturing approach on a large scale. However, although scientific management certainly made the relationship clear between the wage system and workplace productivity, it was to become criticized on humanistic grounds. Employees were treated simply as replaceable parts of a great machine. In *Modern Times*, Charlie Chaplin provides a powerful artistic representation of the oppressive nature of the new industrial factory culture.

The unresolved 'people' issues led to the so-called Hawthorne Experiments, conducted by a team led by Elton Mayo of Harvard Business School. The work in the Hawthorne factory of Western Electric took place from 1927 to 1932 (Mayo, 1933). The purpose of such experiments was to verify the relationship between workplace productivity and work environment. The researchers concluded that human relations played a significant part in workplace productivity. Controversy surrounds the findings, but there is little doubt that the work was to lead later to the rise of a human relations school, as research into management extended its sphere to include humanistic considerations.

However, these were the decades in which productivity was closely connected with the theories of economic production, and which derived their models on assumptions of orderly economic conditions of full information availability, which is a requisite assumption for the actualization of laws of supply and demand.

Frederick Taylor may be seen as the initiator of the scientific method of management. Henry Ford applied the principles on a large scale. A third American, Alfred P. Sloan organized the work in General Motors (GM) in a way which transformed earlier, fragmented approaches, into a coherent organizational form (Drucker, 1964; Sloan, 1990). The changes became a motive power that pushed GM into becoming the most successful and largest motor company in the world. Thanks to Sloan, the theory of organization acquired a rich empirical illustration that became a significant part of management research.

Stage 2: The Quality Movement

After the Second World War, with the participation of GHQ (General Headquarters of the Supreme Commander for the Allied Powers), Japanese industrial groups introduced the theory and technique of quality control from the United States. Such practices were recognized as relatable to Japanese culture in the form of TQC (Total Quality Control) and they made a huge contribution supporting Japanese products in the global marketplace (Goto, 1999). It is often reported that TQC had its origins in the United States, failed to take off there, and only succeeded after it had been proven a success in Japan, and was then re-imported (Walton, 1989). Less celebrated has been the import into the United States and then to other Western cultures of Japanese practices such as the Toyota production system associated with just-in-time manufacturing (Baranson, 1981; Pascale & Athos, 1982). We will suggest that the related application known as The Cell System within the Toyota approach has significance as a bridge between earlier Fordist approaches and more creative management approaches.

Stage 3: Humanistic Developments

Efforts to harness human talent into organizational life led to the development of the so-called socio-technical theorists. The field can be traced to the work of Kurt Lewin (1951), an undoubted pioneer of social psychology, and of the action research approach (Susman & Evered, 1978). This methodology encourages participation of employees in the design and modification of change processes. In Europe, the approach was particularly appreciated in the social culture of Scandinavian countries, where an important early case came out of the Volvo organization.

The Volvo experiment discarded the Fordist car production line in favour of more auto-

nomous teams. However, the experiment was eventually suspended. Gains in personal satisfaction for team members were not shown to be accompanied by productivity gains over the conventional car production line. This became a critical incident in the Western appraisal of alternative systems to Fordist production lines. However, the rejection of a single and preliminary empirical trial by an organization is insufficient grounds for rejecting a more general conceptual belief in the social and economic benefits that could emerge from worker empowerment.

Elsewhere in Europe, the socio-technical approach was developed by the Tavistock Institute in the 1940s. The foundations to the Tavistock work have recently been summarized in Trist, Emery and Murray (1997) as a pioneering approach for relating social theory and practice. Among its first major projects was the work within the Glazier Metal Company (Jacques, 1951), and within coal mining (Trist & Bamforth, 1951). Early conceptual contributions included development of Social Field Theory (Lewin, 1947, 1951), defence processes of denial in social systems (Jacques, 1953), and self-regulatory processes within work groups (Trist & Bamforth, 1951). Another important construct is that known as joint optimization of systems. Since its origins, the socio-technical approach has diffused across the world, re-emerging in culturally adapted forms. It has been related to the work of various influential American groups developing action research and organizational development programmes, such as the National Training Laboratory (Benne et al., 1975). Recent claims for socio-technical structures permitting improved organizational performance can be found in Ketchum and Trist (1992).

The team-based systems were re-introduced to the United States by Toyota in the 1980s, which led to the joint GM/Toyota operation NUMMI (Levine, 2005). Many of the behavioural elements in the approach can be traced to principles to be found in the Tavistock School of social theorizing.

Socio-technical principles have been also been tested within business school action research projects. At Manchester Business School, Professor Enid Mumford developed a close relationship with the Tavistock Institute, and became interested in its socio-technical approach to work organization. She later became a council member of the Institute, adopting their principles, subsequently producing ETHICS – a method for designing computer-based information systems involving, and attending to the basic needs of, users.

Stage 4: Late 20th Century Organizational Experiments

In the 1990s, a wide range of new theoretical concepts on management emerged. They included re-engineering, core competence, corporate visioning, benchmarking, outsourcing, added-value creation, and the learning organization (Hammer & Champy, 1993; Hamel & Prahalad, 1994; Senge et al., 1994; Collins & Porras, 1995; DHB, 1995, 1996). The systems have been criticized as lacking convincing theoretical bases, and even the empirical claims require more rigorous investigations. The critiques have taken various forms. Social scientists have attacked the fundamentals of applied management theory as instruments for preserving the power differentials within organizations (Reed, 1996). Critical theorists have taken a similar stance, proposing that Total Quality Management (TQM), Business Process Re-engineering (BPR) and downsizing all typify management fads (Collins, 2000).

Michael Porter published a series of books on competition and strategy (Porter, 1976, 1980, 1983), stimulating extensive research on competitive strategy internationally. Porter's theory is particularly influential in management research. Numerous illustrations may be cited including the establishing of the World Competitiveness Center of IMD and the publishing of its comprehensive annual report (*World Competitiveness Yearbook*) since 1989. The Graduate School of International Corporate Strategy (ICS) of Hitotsubashi University, Japan, is named after Professor Porter. However, there have been various criticisms of the grounding of Porter's work as a result of which there is still lively scholarly controversy and challenge (Brandenburger & Nalebuff, 1995; Coyne & Subramaniam, 1996).

One promising approach arising from Japanese theorizing is that of knowledge creation and management pioneered by Professor Ikujiro Nonaka of ICS, Hitotsubashi University. This has been described (Xu & Kunifujii, 2002) as a theory about organizational knowledge creation in Japanese enterprises. It includes one management model (middle up-down management), two key words (tacit knowledge and explicit knowledge), three concepts (Ba, knowledge capital, intelligent leadership) and four change processes (socialization, externalization, combination and internalization). As with earlier models, knowledge management concepts have been taken up into the global community of management theorists.

Broadly speaking, the shift of emphasis in organizational theorizing was from attention

to material relations, such as products, quality and cost, to include humanistic elements (Xu, 2005). It is this change that has incorporated concepts of knowledge creation.

Summary of the Four Stages and Harbingers of a Proposed Fifth Stage

Our sketch captures the complex ebb and flow of dominant ideas over time and space. The 'big idea' of rational management was embodied in the Fordist production lines, which became transferred to great effect into Japanese practices. The more disregarded ideas of incremental improvements required the well-known pattern of diffusion from the USA to Japan, and then back to the United States via Japanese production systems (e.g., Toyota). The humanistic ideas tested in Scandinavia and elsewhere in Europe had limited organizational success in changing the mid-20th century, despite subsequent promising evidence in the design of new production facilities, following socio-technical systems principles. As the industrial world encountered the information age, theorizing became sensitized to the potential significance of knowledge transfer as essential for innovation and change, and the 'big idea' with diffusion from Japan to wider international acceptance. We regard these patterns of change as more complex than a progression from one stage to another more advanced one. Rather, we detect linear and iterative (or recursive) changes, in theorizing and industrial management practices. Yet, it is possible to disembed the dominant ideas, and for the purposes of analysis, consider them as temporal epochs or stages. In this sense we have constructed four stages through which management thinking and practices have passed, and a further stage we believe is in its latency.

Trends within Creativity Research

How has creativity research developed over the periods of the four great management epochs? Within the various research traditions, there has been a relatively minor attention to creativity as a general phenomenon, and even less as a component of managerial processes. However, there have been potentially relevant ideas developed, for example in the field of psychology, in an attempt to explain the mechanisms of individual discovery (Kohler, 1925; Wertheimer, 1945; Koestler, 1964) and philosophic deliberations (Bergson, 1907; Poincaré, 1908).

Some researchers have regarded Francis Galton's research on genius and heredity as

pioneering modern creativity research (Dacey & Lennon, 1998). Arguably, Galton was the first researcher to apply the Baconian method of empirical observation in the service of theory building. His studies confirmed the earlier renaissance view that creativity is a matter of inheritance. Even earlier theories assumed creativity as a 'gift from above' (Dacey, 1999). Dacey suggested that modern creativity research has developed across a range of disciplines as 'psychological and contextual influences received more recognition' (Dacey, 1999, p. 321).

Creativity in Business

The history of creativity research in business goes back to the 1930s in America. It began in product development and advertising, and explored aspects of people and organization within the development of management. Later, other fields related to management identified the significance of creativity. For example, idea creation, product development, design innovation, acquisition of knowledge capital, enforcement of spin-off, marketing development, cost control, human resource development, and competition have acknowledged potential for creativity and its stimulation (Arnold, 1954; Gordon, 1956; Ichikawa, 1960; Onda & Nomura, 1964). Courses such as 'Creativity of Product Development', and 'Creativity in Marketing' had been taught at universities or colleges for many years, and in increasing numbers since the 1970s (Xu, McDonnell & Nash, 2005).

European and Asian Contributions

The growth of interest in industrial creativity spread into Europe from its American origins, into international conferences as well as scholarly and professional publications under activities such as the European Creativity and Innovation Association. Torrance (1959) was one of the pioneers in identifying that creativity occurs across all cultures, although with specific cultural contexts (Torrance, 1977; Raina, 1993). He was particularly concerned to dispel a myth that creativity resided in Western cultures, and could not be found in other cultural environments. His work suggested that the perception arose because of failure of Western researchers to see the significance of a more Eastern creativity, which more attended to the holism of the world, and was less directly concerned with immediate and direct interventions.

The viewpoint aligned with confusion in American business circles at Japan's competitive economic growth rates (and of the other

Asian 'Tiger' economies) in the late 20th century. It presumed that Japan and other Asian cultures would be unable to compete with the Western cultures at creating new technology and growth. Furthermore, the Eastern countries were assumed to be resistant to ideas from outside their boundaries. When such economic growth appeared, it became necessary to explain it in terms of 'copycat' strategies of simple importation of ideas. However, closer examination reveals the whole concept to be over-simplistic. Eastern cultures may appear to resist new concepts, although there is evidence to the contrary. A recent review (*Economist Review*, 2003) argued of Japan's development over two centuries that:

Japan has shown clearly that you do not have to embrace 'western' culture in order to modernise your economy and prosper. From the very beginning, Japan set out to have one without the other, an approach encapsulated by the saying 'Japanese spirit, western things'.

In Europe, research on creativity and innovation in business followed the rise in interest in the United States. The journal *Creativity and Innovation Management* was founded in 1992 and was followed by the formation of The European Association of Creativity and Innovation (EACI) in 1994, with its regular international conferences and proceedings. A similar growth of interest can be found in Asia. Toyo University, for example, founded a programme 'Creative Business' in 2002. The programme offers twelve courses including 'Theory of Creativity', 'Theory of Creativity Development', and 'Creative Thinking Techniques'. In China, the Department of Business Administration, Jiangsu Polytechnic University, founded the Institute for Creative Management and offered five courses for third-year students in 2005. They are 'Creative Studies', 'Creative Management', 'Creative Thinking Techniques', 'Creative Education' and 'Creative Project'.

To sum up, creativity research has extended beyond the framework of psychology and has become thoroughly interdisciplinary. Throughout the Stage 1 period of rational management, creativity was largely ignored in industry. Within the efforts of the theorists of Stage 2, the possibility of structures for stimulating creativity emerged as a big idea. Controversy was to persist about the validity of such techniques (Rickards, 1973, 1999; Stein, 1974). This played a modest role in Stage 2 theorizing of Total Quality systems.

The humanistic psychologists such as Maslow and Rogers, and the socio-technical systems figures including those from the

Tavistock Institute had some influence on the quality of working life movement, and recognized the significance of a humanistic climate which was identified with a creative climate (e.g., Ekvall, Arvonen & Waldenström-Lindblad, 1983, Ekvall, 1987 and Ekvall & Arvonen, 1991, 1994, at FARET, Stockholm). Thus creativity was of interest within Stage 3. Organizational impacts of creativity initiatives remained relatively unreported outside specialized groups such as were found in technological research departments. Stage 4 saw more advocates of a creative approach, but the most damaging critiques were to come from Western academics who saw no theoretical grounding, beyond self-interested 'consultant speak' and corporate rhetoric. However, in Stage 4, a small fraction of companies from the most global, to small start-ups, were acknowledged as doing something special and creative, in achieving unexpectedly innovative results. Yet, even Stage 4 companies appear to be isolated, and the basis of their creative success little understood. This is why we argue for a further revolution towards a global creative management culture. Stage 5 companies will be characterized by actions which thoroughly reflect the principles of creative management.

Principles of Creative Management in a Future Stage 5

In our vision of Stage 5, as-yet unrecognized principles of creative management will be revealed and tested through practice. However, there are themes which we believe can already be identified in the various cultures in which we examined creativity in its teaching, theorizing and applications. We select three dominant and universal themes. They remain 'theories in good currency' but open to testing, refinement and even rejection. We offer them as indicative of themes and starting points for developments in the theory and practice of creative management.

- **The universality principle:** Creativity is an inherent potential of all human beings. This appears to be contested by theories concentrating exclusively on extraordinary creative talents in arts, science and even in business. However, the universality principle is more widely accepted in the educational domain, where intelligence is regarded as a universal, although some people display evidence of having superior levels of intelligence than others.
- **The developmental principle:** Potential creativity will become actual creativity

under suitable developmental conditions. Conversely, actual creativity will decline if the person is restricted in opportunities to display his/her creativity.

- **The environmental principle:** Environmental features will influence the development and manifestation of creativity (the developmental principle). Research will increasingly shed light on the mechanisms through which contextual features limit or enhance creativity. There is gathering consensus that creativity is supported through features encouraging 'ownership', participation and enhanced sense of well-being through self-actualization (Maslow, 1959; Amabile, 1983).

Case Examples

We can explore the processes and consequences of creative management through considering these three principles. For example, if a manager introduced the first principle, he/she will consider every employee as an 'owner' of creativity. This is accepted as a desirable principle, although in practice the intention often stops at the level of rhetoric. (For a critical theory perspective of the rhetoric of empowerment, see Collins, 2000.) So far, a few managers consider every employee as a talented person. But for today's business, if a manager is unable to harness everyone's creativity he/she would not be successful in his/her business. In contrast, creative companies are treasuring their employees. Among Asian examples we can cite the Japanese company Canon applying creativity criteria in their annual promotion processes (Nonaka & Takeuchi, 1995). Other companies include the Chinese appliance manufacturer Haier, which openly solicits applications for every administrative post within the company.

In Europe, companies from many countries following the first principle have reported their successes within the EACI bi-annual conferences. From Holland, The Directorate of Public Works and Water Management (Rijkswaterstaat) set up a way of generating ideas not just from its employees but from citizens and social organizations (Kune, 1997). Scandinavian examples would include Nokia, Ericsson, SAS, Astra-Xeneca (Styhre & Sundgren, 2005). Rickards and co-workers have compiled numerous examples from large and small companies in the United Kingdom (Rickards, 1985, 1990, 1999; Rickards et al., 1997; Rickards & Moger, 1999). The introduction of the second principle, seeks positively to develop employee creativity. This may include a variety of initiatives from outside and inside the

organization. In one Asian study the former included training, suggestion systems, group activities and special project teams. The latter included OJT (on-the-job training) self-education and self-enlightenment, and particularly frequent mentions in reports of success in Japanese industry.

If a manager introduced the third principle, the manager would make effort to put the environment in good order, in order to make the best use of employees' creativity. This accords with one widely-cited contextual model of creativity, the 4P model. This situates creativity in a constructive psychological climate, or *Press*, within which the *Person*, and *Process* interact to generate creative *Products* (Rhodes, 1961, 1987; Sternberg, 1988).

Outcomes (Products) of Creative Management

In our emerging understanding of creative management, we take a wider definition of the creative products deriving from creative management than is at present customary. The approach extends the principle advocated by Don MacKinnon (1962) many years ago, who urged researchers into creativity to ground their studies in evidence of the creative product.

The creative manager re-invents his or her corporate self and the organization. That is why we propose to treat creative companies and creative managers as products and outcomes of creative management. In making this claim, we acknowledge that the precise specification of a creative company and manager will require further clarification. At present we wish to borrow the methodology proposed by Amabile (1983), and begin with the ratings of corporations by domain experts – that is to say leaders in, and commentators on, economically successful corporations. We have chosen reports where the awards have incorporated innovation and change into their economic judgements.

We will illustrate our analysis with Asian and European examples, as these have received less attention internationally than American ones. However, our intention is to relate the findings to the better-known international studies.

The Canon Example

In Japan, the most-widely respected annual 'league table' of innovative success is provided by Nikkei (*Nihon Keizai Shinbun*, the most respected newspaper on the economy and management). Nikkei chooses the top 500

companies every year. Canon was chosen number one by Nikkei in 2004 and 2005. Western publications have also identified Canon as a highly creative company and written case studies on its creative processes.

What makes Canon such an international exemplar for a creative company? Our analysis anticipates that a creative company would be led by a creative manager. Our study of Canon confirms this. Mr Fujio Mitarai is the chairman of Canon and also the chairman of Nippon Keidanren (Japan Business Federation). It is well documented that he sees things in an imaginative way that goes beyond the conventional wisdom. For example, the life-time employment system in Japan has recently been widely criticized as a cause of economic decline. Asserting that life-time employment is the source of Japanese companies' competitiveness, he suggests that the company has about 80,000 patents because its employees are never dominated by concerns about their employment. Rather than reject the life-time employment principle, he reformed the opportunities for creativity within it. He forsook the seniority system which was the traditional Japanese management approach, and introduced efficiency-based payment, as well as other 'best-practice' personnel structures providing promotion opportunities for all employees on ability and performance.

One major management system has contributed to widespread operational improvements at Canon. This is the production design known as the cell production system, which for us illustrates Stage 4 company practices. To understand the innovation, we have to trace its associations with the Toyota production system of Stage 2.

The cell system can be traced to the earlier work on the Toyota production system, attributed to senior Toyota executive Taiichi Ono. This in turn had emerged from the Fordist model. Ono had recognized the weaknesses in the Ford production lines, such as the inability of workers to react to immediate production errors or other unplanned production inefficiencies. The Toyota system made a fundamental advance: whereas the Fordist production line controlled the workers (as parodied by Chaplin in *Modern Times*), the workers controlled the production line in the Toyota system, including the right and obligation to halt a line to remedy problems. The three vital elements (just-in-time, kanban and kaizen) are recognizable design innovations within the Toyota system.

The system has made its greatest impact in the automotive industry. Attempts to introduce it more generally failed, for example, in industrial manufacturing and electronics.

Hitoshi Yamada had been directly mentored by Taiichi Ono at Toyota and published *The Encyclopedia of the Toyota System* (1988). Later he founded the PEC Industrial Education Center, and reshaped the Toyota system into the Cell system.

His revolutionary insight can be found in the attention paid to assembling autonomous groups or teams of workers into cells, with 'ownership' for direct intervention in production actions. The employee's satisfaction in direct participation (e.g., in creating machine settings) permits individual involvement. It provides a new source of justification for the theoretical principles developed by the socio-technical work after Emery and Trist (1967).

In a recent symposium on a new Japanese strategy for growth, Yukio Shohtoku, advisor and former chairman of Matsushita, reported that following introduction of the cell production system, his company's 104 factories had decreased unfinished goods by increasing the productivity of each person by 90 percent; and had decreased equipment investment by nearly 70 percent. To illustrate environmental benefits of the cell system, he also cited a reduction in consumption of electricity by nearly 60 percent in its DVD factory.

The Honda Example

Honda, a popular Japanese motor maker both in North America and in China, has also always been widely recognized as a creative company. Soichiro Honda, the founder of Honda Motor, liked to say that for success it was necessary to be an insatiable challenger of established beliefs.

Richard Pascale presented the company to illustrate how organizational success may be attributed to creativity and innovation, in this instance flowing from the values of the corporate founder (Pascale & Athos, 1982). Focusing on Honda's entry into the American market, he disputed earlier reporting which attributed the firm's success to investment and production factors such as economies of scale from their buoyant home market. Pascale considered the success was due to emergent strategy, demonstrating a culture of flexibility, imagination and organizational learning. The original intention was to conquer American markets with large motor cycles. The plan was rapidly revised, on evidence that Americans were showing great and unprompted interest in the scooter-type vehicles used by the expeditionary team. This was to result in the successful design and launch of the Supercub vehicle.

Our studies confirmed Honda's continued achievements, including nomination for excellence (Nikkei ratings) in 2004 and 2005. Deeper investigation revealed how Honda had developed from the entrepreneurial leadership of Soichiro Honda, who was the founder and president for 27 years until his retirement in 1973. Ever since that time, the corporate culture has developed in a manner that has emphasized collective or group cohesion. Even the president wears a uniform in common with all employees.

The Haier Example

CEO of Haier, Mr Zhang Ruimin, over 20 years has transformed a small and failing company making refrigerators into the third largest electric household appliance maker in the world. In 1984 Haier was a small factory. Today, the company is acknowledged as the nation's most valuable brand, valued at 70.2 billion yuan (US\$8.7 billion) in 2005. Its industrial products are exported to just under 100 countries and are manufactured in China and in over 20 production locations around the world including the United States. The ailing refrigerator company now is the leading producer of refrigerators world-wide.

In order to stimulate everyone's creativity, an attractive incentive system is in place. The incentive system includes wages, promotion bonus and stock options. Additionally there has been deliberate and significant transference of authority to younger managers, as well as heads of department and vice presidents. Except for the president, every administrative post is chosen by election. Once a post is filled, the winner has tremendous power and responsibility, providing a workplace which enables employees to display their creative talents.

Haier encourages everyone to develop his/her creativity as a matter of corporate strategy. Wherever possible, individual recognition is given to individual creativity. If someone can be identified with an invention or solved a production problem, there are bonus awards, and the inventor may even be acknowledged in the name of the product. Various tools or goods of this sort can be found (e.g., the Xiao-Ling Spanner, and the Yun-Yan Mirror). Through such attention to developing employees' creativity, a creative climate has also been achieved, helping make Haier one of the most successful IT companies in China.

Implications

Our model of creative management implies that creative companies are the products of

creative managers. We take this as a duality, in the sense that the so-called creative company has resulted from the efforts of creative managers. This approach focuses on the particular mode of creative production that is studied at the level of the organization, and compared with that found in other organizations. It is the methodology followed, for example, by Jim Collins, in his celebrated studies of great companies and great managers (Collins & Porras, 1995). A major conclusion was that success was associated with the orientation and vision of the corporate founders. In a subsequent study, Collins identified the successors in such companies as fifth-level leaders, whose brilliance was not driven through self-interest.

Our analysis indicates how the development of a domain of concept of creative management might draw on two presently loosely coupled bodies of knowledge, namely management studies and creativity. Each has accumulated a wealth of ideas, theories and expositional materials. Rickards and Moger (2006) concluded that the major themes associated with creativity (such as leadership, innovation and management) remain in need of further integration for advancing theory and practice. In this paper, we offer a step toward such an integration, identifying management as the critical theme and critical conceptual domain in that integration. In so doing, we recognize that further analysis is required to address the role of creative managers at individual, group, organizational and cultural levels. This work will be supported by the pioneering efforts of scholars such as Csikszentmihalyi (1988) and Magyari-Beck (1993) who showed how knowledge at the individual level of creativity might be extended into higher-order social systems.

Drazin, Glynn and Kazanjian (1999) suggested that multi-level theorizing about creativity in organizations would benefit from a sense-making perspective. Woodman, Sawyer and Griffin (1993) also proposed a conceptual framework at the organizational level. At the level of the team, there has been a growth of interest in the creative manager as team leader or facilitator. This school of thought tends to espouse the notion that the team leader addresses the creative climate of project teams (Rickards & Moger, 1999). In this journal, Puccio et al. (2006) built on the pioneering contributions from the Parnes/Osborn tradition at Buffalo, New York (Osborn, 1953; Parnes, 1994). Kratzer, Leenders and van Engelen (2006) also proposed links between team factors and creative performance.

The implications of the proposals have to be assessed against criteria of timeliness, robustness and feasibility of implications. Our

historical survey indicates how the lack of resolution of issues concerning creativity in organizations is increasingly significant as environmental turbulence and globalization become dominant. This lack of progress suggests that a new direction is timely. Its robustness has been tested by examining studies from several international regions. The proposed synthesis of creativity and management seems to hold across wide cultural, geographic and economic domains. The feasibility of contributing to a 'tipping point' and subsequent re-direction of theoretical understanding and practice of a more creative approach remains problematic.

The business environment is changing rapidly with advances in information technology. Therefore, the research of management also has to change accordingly. In particular, the union and crossing among established bodies of knowledge becomes more important. Indeed, new studies such as Information Engineering, Financial Engineering and Tourist Economics all were born from such intellectual hybridization. This encourages us to propose Creative Management as a new applied domain of theory-grounded practice. Since creative studies and management are subjects which have a long history, their evolutionary hybrid Creative Management may come to maturity very rapidly (this would conform to theorists of discontinuous change and punctuated equilibria). We would hope that our paper plays a role in accelerating such changes within academic and institutional communities of practice.

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Tudor Rickards (trickards@dom01.mbs.ac.uk) is Professor of Creativity and Organisational Change, at the Manchester Business School, University of Manchester, UK. He was co-founder of CIM, and of The European Association for Creativity and Innovation. He has published numerous books and academic articles on creativity, innovation and related subjects.

Dr. Fangqi Xu is professor of the Department of Business Administration and director of the Institute for Creative Management of Jiangsu Polytechnic University, China.