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Luke Pittaway

Institute for Entrepreneurship and Enterprise Development  
Lancaster University Management School  
Lancaster LA1 4YX  
UK

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# **Paradigms as Heuristics: A Review of the Philosophies Underpinning Economic Studies in Entrepreneurship**

**Dr. Luke Pittaway**

**Lecturer in Entrepreneurship**

Institute for Entrepreneurship and Enterprise Development

Lancaster University Management School

Lancaster

LA1 4YX

Tel: 01524 593901

e-mail: [lpittaway@lancs.ac.uk](mailto:lpittaway@lancs.ac.uk)

## **ABSTRACT**

*This paper addresses contemporary debates about paradigms in organization studies and uses Burrell and Morgan's (1979) framework to undertake an analysis of the metatheories underlying economic theories in entrepreneurship. The core thesis of the paper is that those studying the subject of entrepreneurship need to reflect more on the underpinning philosophies that guide research. Differences in the economic theories contributing to the subject are explored in the paper to illustrate the diversity of philosophies that exist in the historical foundations of the subject. Using Burrell and Morgan's (BM) paradigms has led to a number of methodological advances and has highlighted issues regarding their usefulness as heuristics and these are reported. The paper concludes by explaining how extreme functionalist assumptions can harm the development of theory in entrepreneurship.*

## **KEY WORDS**

*paradigms, entrepreneurship, economic theories, philosophy*

## **INTRODUCTION**

The purpose of this paper is to explore the philosophies underpinning economic approaches to the study of entrepreneurship. This will be achieved by using Burrell and Morgan's (1979) paradigms to map out assumptions made in economic theories, illustrating their contribution to contemporary debate. The paper will explore the value of using BM's paradigms within the subject and explain why greater understanding of meta-theories is valuable. The detailed study will be reported and the implications for future study in entrepreneurship will be highlighted.

Such discussions have become a key feature of academic enquiry in organisational studies since the publication of Burrell and Morgan's (1979) '*Sociological Paradigms and Organizational Analysis*'. Although the thesis created debate throughout the 1980s and 1990s in organisational studies (McCourt 1999) there are many gains for the study of

entrepreneurship if researchers are prepared to learn from the experience of organisational studies. For example, Burrell and Morgan's work highlighted the role of philosophies in research endeavour, it informed researchers about the complexities of organisational enquiry and raised awareness about the influence of research paradigms on knowledge construction (Burrell and Morgan 1979: 22).

Disagreement surrounding their thesis continues and revolves around a number of themes.

- i) Focusing on the nature of paradigms (Weaver and Gioia 1994), which has included disputes about how paradigms should be viewed. Some researchers have argued that paradigms are ways of bringing unification to organisational study (Pfeffer 1993). Some have reasoned that the research community should protect and foster new paradigms (Willmott 1993a) and others have argued that paradigms are different ways of understanding social scientific phenomena (Scherer and Steinmann 1999).
- ii) Concentrating on the use and meaning of the word 'paradigm'. For some, the concept of a paradigm has been eroded of its rigour (Holland 1990) and for others, it continues to represent a valuable means for differentiating between philosophical assumptions (McCourt 1999).
- iii) Engaging in debates about incommensurability, where views have ranged comprehensively. They have included relatively strict interpretations (Jackson and Carter 1991; 1993), approaches seeking to question the concept (Hassard 1998; Holland 1990; Willmott 1993a; 1993b), attempts to build multi-paradigm communication (Gioia et al. 1989; Gioia and Pitré 1990) and arguments suggesting more complex alternatives (Weaver and Gioia 1994; Scherer and Steinmann 1999).
- iv) Centred on the common divisions thought to exist in organisational enquiry that underlie Burrell and Morgan's schema. These include structure versus agency, functionalism versus interpretivism, determinism versus voluntarism, causation versus meaning, holism versus individualism, object versus subject and description versus prescription (Astley and Van de Ven 1983). The nature of these dualisms, the implied simplicity of duality and the relationship between them has also been discussed (Davies, 1998).

Despite these debates, disagreements and complexities the value of this stream of work in organisational studies has been its ability to raise awareness about the importance of metatheory when constructing research in the social sciences. This paper seeks to build on these benefits for the subject of entrepreneurship by reporting a historical analysis that used a technique adapted from Burrell and Morgan's paradigms. In doing so the paper will explore the usefulness of the paradigms in a different subject domain and build on other approaches that have used them as heuristics, including Holland's work on professional education (Holland 1990), McCourt's (1999) analysis of personnel selection and Grant and Perren's (2002) analysis of entrepreneurship. The main contribution of the paper is that it applies some of the meta-theoretical insights identified in organisational studies to an analysis of the historical roots of the subject of entrepreneurship. As this paper will argue this is a task that has been overlooked and is overdue.

### **ENTREPRENEURSHIP: PHILOSOPHY AND AXIOLOGY**

'Entrepreneurial' discourse and study have been criticised as functionalist (Grant and Perren 2002), *"discriminatory, gender-biased, ethnocentrically determined and ideologically controlled"* (Ogbor 2000: 605). Entrepreneurship research has consequently been criticised for its inability to recognise these assumptions and has been accused of legitimising and institutionalising the ideologies of Western society (Ogbor 2000: 627). While such an appraisal is valuable for raising awareness of the limitations of research in this domain it is important to acknowledge that the study of entrepreneurship is not a unified discipline drawing on a common meta-theoretical base, as the critiques tend to imply. The studies do illustrate, however, that it is important for researchers in entrepreneurship to be aware of the philosophical and axiological assumptions they make. The study of entrepreneurship continues to expand, however, but despite this increased effort it is difficult to conclude whether it is progressing or making clear the presuppositions that are embedded in research (Bouchikhi 1993). The number of phenomena studied and the variety of meanings ascribed to entrepreneurship can explain this diversity. For example, the words 'entrepreneur' and 'entrepreneurship' continue to have multiple meanings (Smilor and Feeser 1991; Pittaway 2000) and the subject draws from a variety of disciplines and alternative foci (Curran and Blackburn 2001). Diversity in study has led some to conclude that greater convergence is required and the idea that 'entrepreneurship' is 'new venture creation' has become a powerful focal point (Bouchikhi 1993). Common features of the argument include: that the subject remains at a formative stage (Aldrich and Baker 1997); that it should pursue causality more

aggressively (Low and MacMillan 1988); and that it ought to seek common conceptual frameworks on which to base empirical research (Greenberger and Sexton 1988). Aldrich and Baker (1997) illustrate the general view when they conclude:

*“Judging from normal science standards, entrepreneurship research is still in a very early stage. If no single paradigm exists, then there is even less evidence for multiple coherent points of view.” (Aldrich and Baker 1997: 398)*

Although divergent, both arguments illustrate why researchers of entrepreneurship should engage in discussion about the meta-theoretical status of study. On one extreme the subject is being attacked for constructing knowledge that perpetuates the social order and, on the other extreme, there are attempts to assimilate study into a common 'scientific' approach. For example, the idea that the subject is in a 'formative stage' implies a reductionist view suggesting that it will only progress when its complexity is simplified and the proposal that study should move away from case analysis to explore causality betrays a positivist orientation to knowledge construction. In contrast the accusation that the majority of study in entrepreneurship has the same agenda based on a common set of assumptions is a simplification as diversity in study has led to the use of a variety of forms of social science and their relevant philosophies. Neither view is demonstrably 'true' but both have political and philosophical consequences that can guide knowledge construction in a particular way.

Although greater discussion in entrepreneurship about the underlying meta-theories guiding study seems to be required it is difficult to find any significant debate about these assumptions (Ogbor 2000; Grant and Perren 2002). There are views that confirm that meta-theoretical diversity exists but limited explanations about how this has occurred and the impact it has on knowledge construction (Bygrave 1989; Aldrich 2000). When one examines some of the key areas of theory in the subject, however, the extent of meta-theoretical diversity is striking. Ontological presuppositions used, for example, appear to be wide ranging. Ontological constructs are drawn in via theories, concepts and metaphors from a wide variety of subject domains including mathematics, biology, psychology, sociology, economics and business studies (Bygrave 1989; Curran and Blackburn 2001). This multi-disciplinarity leads to a complex interwoven web of largely implicit assumptions about the nature of the reality studied. For example, ontological diversity is evident in theories about business growth where biological metaphors dominate. These have included adaptation (Scott and Bruce 1987), metamorphic (Greiner 1972) and transmutation (Gersick 1991) metaphors. The presuppositions view the 'firm' as growing via evolutionary stages (Scott and

Bruce 1987), developing as a consequence of crisis leading to new emergent forms (Greiner 1972) and undergoing radical changes during transformation (Gersick 1991). Each conception applies a different assumption about the nature of reality. In the evolutionary metaphor a growing 'entrepreneurial' firm may be viewed as an entity in its own right influenced by environmental change. In the transmutation metaphor the 'firm' may be viewed as being tied to the acts of its people, the creation of discontinuous change being linked to confidence and emotional qualities (Gersick 1991). In one view the 'firm' is the reality and in the other it does not exist outside of the efforts and vision of its people.

Equally varied are the epistemological assumptions and this variation is linked to the use of different disciplines and 'schools of thought'. These have tended to lead to the study of multiple phenomena using many perspectives (Hill and McGowan 1999). For example, theorists studying the growth of firms have used varied epistemological assumptions because they have conceptualised the unit of analysis differently. Researchers coming from a business studies background have focused on the 'firm' as the unit of analysis (Scott and Bruce 1987; Kazanjian and Drazin 1990) while others from a geography background have focused on the 'population of firms' (Carroll 1988). The 'firm' focused group have generally assumed that individual enterprises are responsible for their own growth prospects requiring a more micro-positivist approach to knowledge construction. The 'population' focused researchers have used market dynamics as the main force affecting business growth and decline and have applied a more macro-positivist approach. Such epistemological variety also exists in studies of entrepreneurial behaviour, for example, when analysing behaviour have researchers sought to explain *what* occurs, *how* it occurs, *who* makes it occur, or *why* (Pittaway 2000). The epistemological focus inevitably leads to different forms of knowledge construction, for example, an inherent epistemological conflict is implied in Gartner's (1989) and Carland et al.'s (1988) disagreement about asking 'who is an entrepreneur?' Gartner was interested in *how* organisations come into existence while Carland et al. wanted to understand *who* made it possible.

Questions about human behaviour and its relationship to society have other philosophical implications for the subject of entrepreneurship. Assumptions within voluntarism versus determinism, agency versus structure and holism versus individualism (Weaver and Gioia 1994) exist implicitly and are widespread. For example, different 'schools of thought' within psychology and social psychology exist within entrepreneurship and they apply different assumptions regarding the voluntarism versus determinism debate (McClelland 1971; Kets de Vries 1977; Ginn and Sexton 1990; Chell et al. 1991; Shaver and

Scott, 1991). Likewise there are various assumptions applied in the agency versus structure debate. A number of the economic theories apply concepts based on agency (Mises 1949; Kirzner 1990), as do many growing areas of research interest including entrepreneurial learning (Deakins and Freel 1998; Cope and Watts 2000) and networking (Dubini and Aldrich 1991; Donckels and Lambrecht 1995; Shaw 1999). In contrast the concept of creative destruction (Schumpeter 1934) draws on a Marxist idea about the extent to which society adapts and changes in revolutionary ways (MacDonald 1971) and is more structuralist in orientation. Underlying assumptions regarding individualism versus holism are also endemic. Assumptions about individualism in entrepreneurship are almost axiomatic as research is often categorised around the actions of the individual (Gartner 1989; Ogbor 2000). Even where study focuses on other units of analysis, such as the process of venture formation, the concept of 'self' and 'individual' continue to play a key role. Other approaches, particularly economic theories, however, counter-balance individualistic notions by seeking to understand entrepreneurship's function in society (Hébert and Link 1988) and consequently take a more holistic perspective.

Other questionable axioms are quite widespread within study but not everybody accepts these. For example, there is an assumption that 'entrepreneurship' is beneficial to society but Scase's and Goffee's (1980) social marginality theory, Kets de Vries' (1977) psychodynamic theory and Shapero's (1975) displacement theory have all explored the 'darker side' of the 'entrepreneurial' process. Other axioms, such as, the idea that economic growth is positive and that all 'entrepreneurs' seek business growth also exist in study (Katz and Gartner 1988). Recent work, however, has broadened its interest to analyse 'entrepreneurs' in contexts other than business ownership and growth (Kotey and Meredith 1997) and the concept of growth has undergone reinterpretation in relation to multiple business ownership (Carter 1998).

When Ogbor (2000) and Grant and Perren (2002) conclude that the study of entrepreneurship is ideologically controlled or dominated by functionalist enquiry they do so by focusing on these taken for granted assumptions, both the philosophical and axiomatic. What is evident, however, is that they do underestimate the complexity of the presuppositions, axioms and disagreements that exist. In contradiction to their view there is some evidence of a web of philosophies informing study in entrepreneurship, these assumptions are largely implicit and little debate has occurred about which philosophies are most useful. This paper will assist debate by examining philosophical assumptions underpinning the economic theories contributing to the study of entrepreneurship. The reason for undertaking such a

historical approach focusing on one of the main 'roots' of the contemporary subject is explained in the methodology.

## **METHODOLOGY**

When analysing the assumptions underpinning studies in entrepreneurship it becomes clear that discussion about meta-theory is overdue. The purpose of the paper is to contribute to debate by applying BM's paradigms as a method to explain the philosophical assumptions used in the economic approaches. A number of methodological developments were necessary to use BM's thesis outside organisational studies and these will be outlined, there were some key operational questions:

- i) Given the incommensurability debate how should the paradigm boundaries be viewed?
- ii) In BM's paradigms the subjective versus objective and radical change versus regulation dimensions are constructed from dichotomies. Given the nature of a dichotomy how does one identify the relationship between different assumptions in the same paradigm?
- iii) As the subject of entrepreneurship is wide reaching how does one reduce the analysis of the literature to provide sufficient depth while ensuring an understanding of the philosophies used in the subject?

### **Operationalising the Paradigms**

The issue of permeability versus incommensurability remains a controversial issue. In order to use BM's paradigms to review another field of study it was necessary to make some decisions about how to view the paradigms boundaries. Researchers supporting incommensurability argue that the boundaries are immutable (Jackson and Carter 1991) and those advocating permeability accept greater communication between paradigms (Gioia and Pitre 1990). In this analysis the paradigms and dichotomies were viewed as social constructions that could be used to help describe social science research activity. They are useful because they can be used to explore theory but do not 'exist' other than as descriptions that can be used to categorise complex assumptions made by groups of researchers (Willmott 1993a; Parker 1998; Nightingale and Cromby 1999). In this sense communication occurs between people via interaction and language. Permeability occurs because the research paradigms represent social processes where communication between research groups can

happen (Willmott 1993b). Incommensurability also exists because philosophical assumptions when made automatically exclude alternatives (Scherer and Steinemann 1999).

In operational terms problems were encountered when applying BM's paradigms to entrepreneurship. The concept of duality and the use of dichotomies, for example, presented questions when explaining differences of emphasis between meta-theories that derived from the same paradigm. It was also difficult to transfer the original criteria used to interpret study in organisational studies, as these were not reported explicitly. The first issue was resolved by reconceptualising the dichotomies. A metaphor of an elastic band was used at the same time as the concept of continua, individual dualities remain but there are different degrees of emphasis within paradigms. For example, it is possible to find extreme and less strong realist assumptions inside BM's functionalist paradigm but both are dichotomous to any assumption of relativity. The research followed the approach used by Morgan and Smircich (1980) by allowing for different forms of approach within continua while retaining the dichotomous nature of the assumptions. The second issue meant that there were no clear criteria that could be used to apply BM's paradigms to another research field. This factor initially limited the transferability of the paradigms and their usefulness as heuristics. It was resolved for the subjective – objective dimension by building on the work of Morgan and Smircich (1980), which outlined key criteria for six points along each of BM's four dichotomies. It was resolved for the regulation-radical change dimension by undertaking an analysis of the sociology literature with an emphasis on 'Marxism', 'conflict theory' and 'functionalist sociology'. From the source material three core dichotomies were identified and six different forms of philosophical assumption within each were highlighted. The dichotomies represented philosophical assumptions about change, structure and conflict in society. Table 1 and 2 provide a summary of the criteria used for both dimensions of the BM paradigms.

**TABLE 1**  
**A Summary of the Criteria used to Analyse BM's Subjective - Objective Dichotomy**

	<b>SUBJECTIVISM</b>			<b>OBJECTIVISM</b>		
<b>Ontological Assumptions</b>	Reality as a projection of human imagination	Reality as a social construction	Reality as the realm of symbolic discourse	Reality as contextual fields of information	Reality as a concrete process	Reality as a concrete structure
<b>Epistemological Assumptions</b>	To obtain phenomenological insight, revelation	To understand how social reality is constructed	To understand patterns of symbolic discourse	To map contexts	To study systems, processes and change	To construct a positivist science
<b>Assumptions about Human Nature</b>	Man as pure spirit, consciousness, being	Man as the social constructor; the symbol creator	Man as an actor; the symbol user	Man as an information processor	Man as an adapter	Man as a responder
<b>Favoured Metaphors</b>	Transcendental	Language game	Theatre, Culture	Cybernetic	Organism	Machine
<b>Examples</b>	Exploration of pure subjectivity	Hermeneutics	Symbolic analysis	Contextual analysis	Historical analysis	Surveys

*Adapted from Morgan and Smircich (1980)*

**TABLE 2**  
**A Summary of the Criteria used to Analyse BM's Radical Change - Regulation Dichotomy**

	RADICAL CHANGE			REGULATION		
<b>Assumptions about change to society</b>	Every society is at every point subject to forces of radical change	Every society experiences periods of revolution and periods of stability	Every element in society is subject to incremental but continuous change	Every element in society has facilitates change to the existing social order	Every element in society responds to change imposed upon it	Every element in society is relatively stable and change occurs infrequently
<b>Assumptions about the structure of society</b>	Every element in society renders a contribution to internal disintegration	Every element in society displays contradiction and paradox	Every element in society is in a constant state of structural flux	Every element in society displays surface flux which obscures general structural principles	Every element in society is part of an organic system	Every society is a well integrated structure of elements and each element has a function
<b>Assumptions about the degree of conflict in society</b>	Every society at every point displays dissensus and conflict	Every society is based on the coercion of some of its members by others	Every group in society protect their own interests and are in open conflict with other groups	Every element of society is determined by power relationships between individuals and groups	Every functioning social structure is based on negotiation between the demands of its stakeholders	Every functioning social structure is based on a consensus of values among its members
<b>Favoured Metaphors</b>	Anarchy and chaos	Transformation revolution	Tribal factions	Morphogenic	Organic	Mechanistic
<b>Examples</b>	Analysis of anarchy and chaos including action	Critical analysis of the <i>status quo</i> including action to transform	Critical analysis of the <i>status quo</i>	Analysis of functional autonomy	Analysis of the latent functions of society	Analysis of laws governing society

### **Focusing the Paradigms on the Study of Entrepreneurship**

The challenge in this study was to capture an understanding of the philosophies guiding study in entrepreneurship while creating a manageable research study. A full analysis of the subject would have been encyclopaedic but probably unmanageable and would potentially have lacked sufficient depth, failing to understand the core philosophical assumptions embedded in the subject. To resolve this issue a historical approach was taken, which focused on the economic approaches to entrepreneurship and the study of entrepreneurial behaviour (Pittaway 2000). This research paper focuses on the economic

approaches. It does so because the study of the ‘entrepreneur’ had featured strongly in economics but ‘disappeared’ in the 1930s (Barreto 1989), only reappearing in works deriving from transaction cost economics (Casson 1982) and Neo-Austrian Economics (Kirzner 1973). The entrepreneur's disappearance from economic enquiry occurred twice, firstly from macroeconomic enquiry during the schism between macroeconomic theory and microeconomic theory (Kirchhoff 1991) and, secondly, from microeconomic theory as the theory of the firm began to dominate (Barreto 1989). It is probable; therefore, that the axioms and philosophies on which these approaches were based might have implications for the study of entrepreneurship. The contribution of economics to understanding in entrepreneurship has also been complicated in modern theory because of the growing intra-disciplinary conflict between macro- and microeconomics. New interest in entrepreneurship in economics has been simulated by a greater focus on this conflict and it has been argued that entrepreneurship could be a catalyst for a paradigm shift in economics (Kirchhoff 1991).

Economic approaches consequently provide a useful starting point to examine the philosophies underpinning the historical roots of entrepreneurship because they provide a context where entrepreneurship was studied but disappeared and where its re-emergence may have unforeseen consequences for the prevailing paradigm in the discipline (Hébert and Link 1988; Barreto 1989). The following research questions were asked:

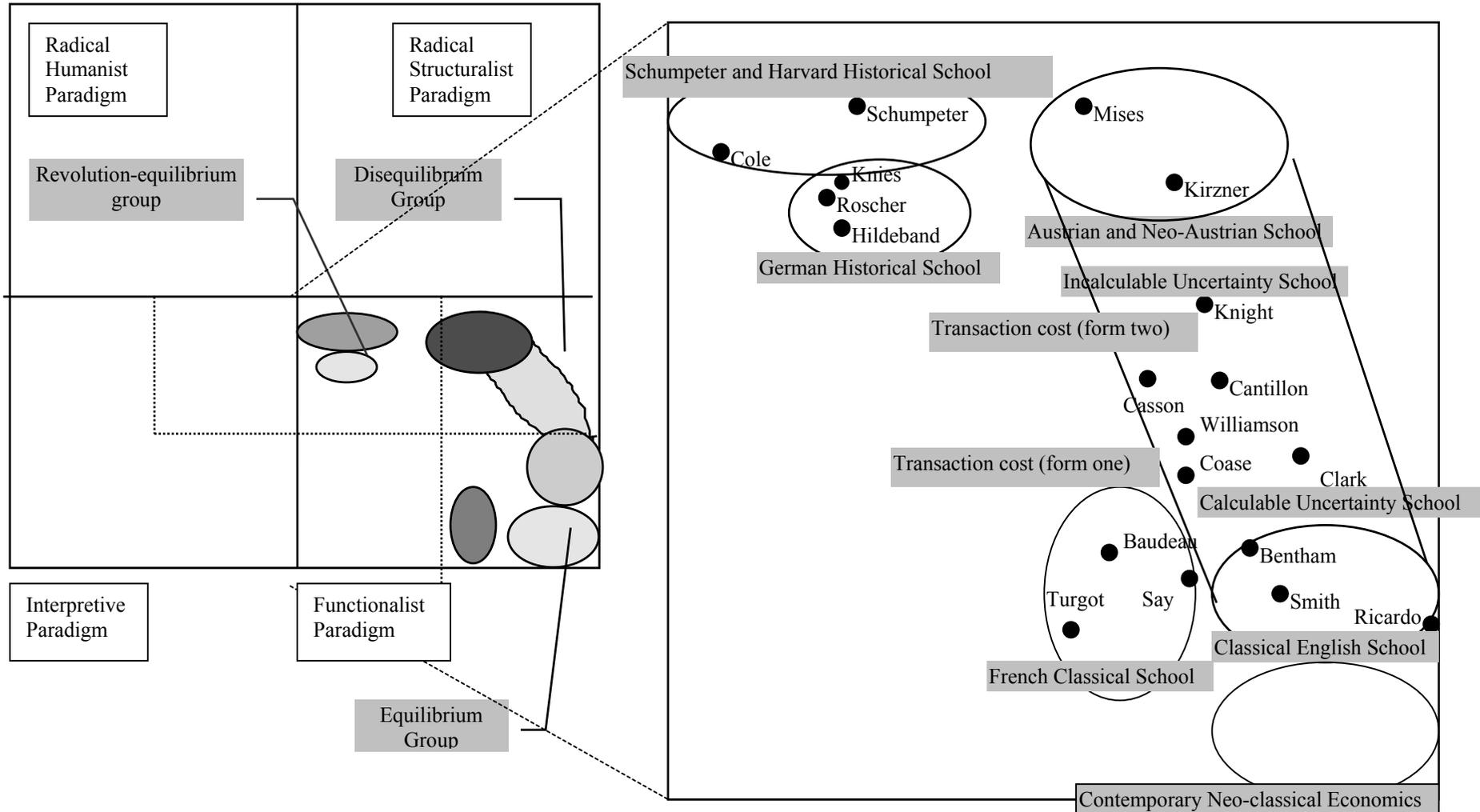
- i) What are the meta-theoretical assumptions underpinning economic study in entrepreneurship?
- ii) How can these be categorised according to BM’s paradigms?
- iii) Are there any philosophical explanations for the decline of ‘the entrepreneur’ in economic enquiry?
- iv) Are there any commonly used philosophies that could limit research in entrepreneurship?

## **DISCUSSION**

These research questions guided the study, which is reported in full in Pittaway (2000) and was carried out from 1996 – 1999. Figure 1 provides a summary of the findings of this analysis using BM’s framework. The study used an in-depth historical review of the economic literature and its contribution to entrepreneurship, starting with the work of Cantillon.

FIGURE 1

A Summary of the Philosophies Underpinning Economic Approaches to Entrepreneurship



The categorisation of economic theories in entrepreneurship has previously been undertaken by chronological order (Hébert and Link 1988; Binks and Vale 1990; Lydall 1992) or by 'school of thought' (Ricketts 1987; Chell et al. 1991). Neither of these approaches has captured the underlying differences between theories based on their philosophies. As Barreto (1989) illustrates, however, philosophies may have played an important role in the decline of the 'entrepreneurial concept' in economics. The disappearance of the 'entrepreneur' from neo-classical economics (1930s onwards) was explained in his work by the rise of the theory of the firm and its use of assumptions that derived from a mechanistic philosophy. Given Barreto's argument, it is possible that certain philosophical assumptions may have a pivotal influence on how 'entrepreneurship' is perceived and understood, even to the extent that the concept can effectively disappear from theorising. Kirchoff (1991) illustrates the point when he discusses the axioms that exist within macroeconomic theory:

*"With these axioms, macroeconomic theory eliminates the role of individually initiated behaviour. If these axioms apply, then buyers and sellers are "non-decision makers" who follow set rules in carrying out their day-to-day purchasing/producing functions. Entrepreneurship cannot exist because it requires rule-violating behaviour" (Kirchoff 1991: 97)*

In both macroeconomic theory and the theory of the firm the gradual erosion of purposeful behaviour has led to an uncomfortable context for entrepreneurship and this has occurred despite the fact that significant contributions were made to understanding entrepreneurship in early economic theory. Economic theories continue to contribute to the field but there are diverse opinions in economics about the nature of 'entrepreneurship' and whether it exists in a dynamic, static or turbulent economic system, as well as, debate about what role it plays in such a system. Within the theories analysed there was considerable difference regarding assumptions about 'human behaviour'. For example, in Kirzner's (1980) work an assumption of human behaviour can be illustrated in his definition of the pure entrepreneur:

*"...a decision-maker whose entire role arises out of his alertness to hitherto unnoticed opportunities" (Kirzner 1980: 38)*

In Kirzner's research the role of the 'entrepreneur' derives from an assumption that human behaviour is bounded by its context and entrepreneurial capacity arises from an ability to recognise opportunities and make decisions in an existing set of circumstances. When

compared to Schumpeter's (1963) concept of new combinations there is a difference in the presuppositions made. For Schumpeter, the assumption of human behaviour has a greater element of 'agency', indeed the role of the entrepreneur is to create new circumstances rather than to be alert to new opportunities in existing circumstances. Both approaches apply some idea about human action but they differ in degree and nature and some form of determinism remains.

Within the economic theories major theoretical and practical differences exist regarding the nature of the scientific enterprise, between subjectivity and objectivity, on the one hand, and abstract theorising and practical description, on the other. Discussion about the nature of economics as a social science featured within many of the classical works. Despite these differences, one can conclude from the research that the majority of economic approaches had used functionalist assumptions. This was a consequence of theorists' desire to explain how 'entrepreneurship' worked in the economic system and what *function* it had in that system (Binks and Vale 1990). By trying to explain how entrepreneurship impacts on economic systems these theorists tend to view it as a universal phenomenon and consequently do not apply the individualistic axiom held widely in contemporary study (Ogbor 2000). Regardless of this presupposition of universality, however, there was little agreement about what the 'entrepreneurial' function actually entailed (Lydall 1992). For example, it has been used to mean forms of behaviour (Schumpeter 1963), types of decisions (Knight 1921) and types of people (Say 1880). Indeed, many of the ambiguities surrounding the definition of entrepreneurship in contemporary study would appear to have their foundation in the economic domain (Hébert and Link 1988).

Another common philosophy running across the economic theories was the use of different forms of determinism. For example, 'entrepreneurs' were reduced to relatively powerless figureheads in the extreme determinism of microeconomics (Barreto 1989) and, despite the use of concepts related to human action in the theory of creative destruction, Schumpeter's (1934) approach returned to psychological determinism to describe the individual entrepreneur. The philosophies linking the economic approaches, therefore, were some form of determinism and a universal philosophy with regard to theories in social scientific research. There were, however, some clear meta-theoretical differences in study and these have been categorised into three groups: equilibrium, disequilibrium and revolution-equilibrium theorists (Pittaway 2000).

Classical, neo-classical and microeconomic theorists who had made some contribution to the study of entrepreneurship dominated the equilibrium group e.g. Say, Smith, Ricardo,

Bentham, Mill, Walras, Marshall, Clark, Dobb and Tuttle (Barreto, 1989). In this group, theorists have sought to identify fundamental 'laws' to explain the economic system. The subsequent models developed tend to be of a mechanistic nature, are mainly prescriptive and tend to assume that there are general principles explaining society, as is evident in general equilibrium theory. In these approaches, individual human action does not play a significant role and even at the collective level human behaviour is explained by general principles. Change within economic systems also tends to be modelled according to stable state or equilibrium philosophies. Marshall's (1961) macroeconomic welfare theory, for example, is now well-known for its introduction of rationality axioms about human behaviour in exchange theory and for creating many of the axioms on which general equilibrium theory is based (Walsh 1970).

Kirzner (1980), Barreto (1989) and Harper (1996) have criticised these approaches as having neglected the entrepreneurial function because of their disregard for philosophies of human action and their over-application of mechanistic models. The assumptions used in the theory of the firm provide an illustration of the validity of these criticisms. The production function, the concepts of rational choice and perfect information all limit the capacity for 'entrepreneurial' behaviour (Barreto 1989). These underpinning philosophies explain why the 'entrepreneurial' concept is not addressed directly by microeconomic theory. In these approaches the 'firm', for example, represents its own 'reality', which is abstracted from the motivations, rationality and fallibility, associated with individuals. The calculation of inputs, including intangibles such as quality of decision making, assumes a capacity to measure inputs divorced from specific human capacity, as well as, assuming that unknown events will not dislodge the factors of production. The assumptions of rational choice and perfect information create further abstractions in the theory by assuming that everything is known either 'deterministically' or 'probabilistically'. In its search for a mechanistic model it has to take out of theorising individuals and groups making and acting on decisions, based on imperfect information, in uncertain conditions, surrounded by unknown future events that can have unforeseen circumstances. For example following his study of contemporary microeconomic empirical research and its contribution to entrepreneurship Kirchoff (1991) concludes:

*"Extensive research effort has been invested in economies of scale, industry concentration, market structures, pricing, technology transfer etc. In all these areas, microeconomists have shredded the axioms of general equilibrium theory to such a degree that few realize that neoclassical theory continues to dominate macroeconomic policy prescriptions...But adoption*

*of general equilibrium theory leaves mainstream macroeconomists with a dilemma. Entrepreneurship is an important component of wealth creation and distribution...American politicians clamor for information and policies to help the entrepreneurs who have become public heroes. Small firms are a sizable portion of the economy and voting public. By one count, they total 19 to 20 million voters. But, mainstream macroeconomists have no answers. Their macro theory fails them. This is widely acknowledged, especially by microeconomists. But all the microeconomic research has not led to the development of a theory even close to the elegance and rigor of general equilibrium theory". (Kirchhoff 1991: 103)*

The failure of neoclassical theory to incorporate entrepreneurship can be explained by its axiomatic assumptions on human nature. It is possible to conclude that equilibrium theorists apply extremely determinist, realist, positivist, mechanistic and ordered views of social science and the social world and that these can create difficulties for the conceptualisation of 'entrepreneurship' despite its many guises (Barreto 1989; Pittaway 2000).

Set against these approaches are those that incorporate concepts of entrepreneurship into variations of mainstream economics. These have included two forms of transaction cost economics. The first introduced a theory of regularity in exchange processes based on the cognitive limits of human actors (Coase 1937; Williamson 1985), which moved away from assumptions based on human rationality and perfect choice. The second sought to directly link concepts based on theories of information, information exchange and information markets to the process of entrepreneurship (Casson 1990; 1998). These have had close philosophical links with other theories based on disequilibrium. The disequilibrium theorists included Austrian (e.g. Mangoldt and Menger) and Neo-Austrian (e.g. Mises and Kirzner) economists as well as the work of Knight and Cantillon. Rather than attempting to construct equilibrium models of the economic system based on general principles these theorists tended to seek explanations based on observations of experience. The models created tend to be descriptive rather than prescriptive and tend to observe that equilibrium did not occur in the 'real' economy. Models based on disequilibrium suggested that there are opportunities for profit within economic systems because of inequalities between supply and demand and 'entrepreneurial' actions are designed to exploit these opportunities, driving economic systems toward equilibrium. This orientation is represented in Cantillon's definition of the entrepreneur and Knight's critique of classical theories.

*"...set up with a capital to conduct their enterprise, or are undertakers of their own labour without capital, and they may be regarded as living of uncertainty" (Cantillon 1931: 55)*

*“...it is a world of change in which we live and a world of uncertainty. We live only by knowing something about the future; while the problems of life, or of conduct at least, arise from the fact we know so little. This is true of business as of other spheres of activity. The essence of the situation is action according to opinion, of greater or less foundation and value, neither entire ignorance nor complete and perfect knowledge, but partial knowledge”*  
(Knight 1921: 199)

The disequilibrium group applies two philosophical assumptions that differentiate it from the equilibrium theorists. They use more complex assumptions about human action and accept greater uncertainty in social systems. Jones (1998) illustrates this perception of human behaviour when he discusses transaction cost economics.

*"Indeed, they explicitly rejected imperfect knowledge and unforeseen circumstances as providing any rationale for the existence and organisation of the 'classical firm'. The new institutional theory of the firm that was to follow turned this position on its head, arguing that in many instances the growth of the firm was designed precisely to overcome market failures, especially the costs and difficulties of transacting in markets under conditions of uncertainty"*  
(Jones 1993: 13).

The move away from perfect knowledge as an axiom in transaction cost economics, while retaining elements of equilibrium theorising allowed for a more sophisticated view of bounded rationality introducing greater uncertainty into exchange relationships. Transaction cost economics was categorised as a disequilibrium form of theorising because it presents a more descriptive model of firms and has a more complex assumption about human behaviour. Although it shares elements with Neo-Austrian economics there is clear disagreement about the value of opportunistic (entrepreneurial) behaviour within conditions of uncertainty. In early transaction cost economics opportunistic behaviour is viewed quite negatively while in Neo-Austrian economics it has a more positive orientation. In the former it is the consequence of disequilibrium while in the latter it is the equilibrating force. Disequilibrium theorising, therefore, provides a complex disagreement between humans as positive actors and negative abusers of opportunity. At once being the guiding force behind equilibrium and being the exploiters of disequilibrium. Despite these differences, however, both approaches do provide an assumption about human behaviour that is quite different from that applied in equilibrium theories. Within these theories one can see more voluntarism and less

determinism than is present in equilibrium theories, as well as, greater evidence of human action, bounded rationality and concepts of information exchange. The nature of society within the disequilibrium group is also viewed to be more unstable and open to unpredictable changes, for example:

*“...every action is embedded in the flux of time...In other words the entrepreneurial element cannot be abstracted from the notion of individual human action, because the uncertainty of the future is already implied in the very notion of action. That man acts and that the future is uncertain are by no means two independent matters, they are only two different modes of establishing one thing” (Kirzner 1990: 81).*

Uncertainty, not predictability enters as the guiding force behind economic systems. In terms of BM's paradigms these approaches remain functionalist in orientation but apply assumptions that allowed for human influence over economic structures, recognising the limits of knowledge, information and expecting greater unknown disequilibrating forces to impact on economic systems in unexpected ways.

The third group of theorists has been described as the revolution-equilibrium group (e.g. Schumpeter, Cole, Knies, Roscher, Hildebrand). The principle philosophies originate from the work of Schumpeter. Within this group three presuppositions exist. Firstly, theorists take the concepts of human action and choice a step further, secondly, they assume economic and social systems experience radical rather than incremental changes and, thirdly, they advocate greater linkage between historical 'facts' and abstract models. Schumpeter (Kilby 1971) takes the concepts of human action further by arguing that while the entrepreneurial function may be mingled with ownership and management of resources the key function of the 'entrepreneur' was the person who innovates or makes 'new combinations' of production. Human action is conceptualised at the individual rather than the collective level (Shionoya 1997). For example:

*“These concepts are at once broader and narrower than the usual. Broader, because in the first place we call entrepreneurs not only those 'independent' businessmen...but all who actually fulfil the function...even if they are... 'dependent' employees of a company... On the other hand, our concept is narrower than the traditional one in that it does not include all heads of firms or managers or industrialists who merely operate an established business, but only those who actually perform that function” (Schumpeter 1971: 54)*

The difference for the individual is related to behaviour, in the sense that in a static system the individual can become accustomed to his/her own abilities and experience and their usefulness. In a dynamic system, however, the individual must become accustomed to uncertainties and must interact with them. Operating a business in conditions of uncertainty is quite different from operating one where certain knowledge exists.

*“Carrying out a new plan and acting according to a customary one are things as different as making a road and walking along it” (Schumpeter 1971: 56)*

Assumptions about human action, therefore, differ from those applied by theorists in the disequilibrium group because individuals create new opportunities rather than respond to existing ones. This conception may derive from the second philosophical difference focusing on the nature of social systems, which holds that economic systems go through radical discontinuous changes. Schumpeter moves away from equilibrium theorising to argue that creative destruction involves periods of stability in economic systems followed by periods of transformation, within which he places the entrepreneurial function. This departure illustrates far greater usage within the functionalist paradigm of concepts of social conflict derived from Marxism and BM’s radical structuralist paradigm and these are evident when one analyses in detail the concept of creative destruction (MacDonald 1971). In direct contrast to Ogbor’s (2000) critique, therefore, within this perspective the ‘entrepreneurial’ function involves the destruction of the current social order not its maintenance.

The final philosophies that differentiate this group of theorists derive from their views about social science research and Shionoya (1992; 1997) has examined these in detail. In summary research is viewed as a more inductive process, theories are used as mechanisms to help explain ‘reality’ and are viewed as abstractions that can be used to interpret observations. Such concepts are embedded in their historical context, are accumulated over time and are socialised within society, for example:

*“The kind of data that is missing in entrepreneurial analysis could, in Schumpeter’s opinion, best be supplied through qualitative data or by ‘economic historians’ and not economic mathematicians... According to Schumpeter, it is only through an intimate collaboration between facts and theory that it would be possible to make substantial advances in the study of entrepreneurship.” (Ogbor 2000: 623).*

*“Nobody can hope to understand the economic phenomenon of any, including the present, epoch who has not adequate command of historical facts and an adequate amount of*

*historical sense or of what might be described as historical experience”, (Schumpeter 1954: 12-13)*

This view of social science is near the boundaries between BM’s interpretive and functionalist paradigms as it illustrates the important place of subjectivity and contextualism in research.

The analysis of the economic approaches using BM’s paradigms shows three distinct modes of theorising based on different philosophical assumptions about social science and society. As a consequence ‘entrepreneurship’ within these modes of theorising is quite different and events based on a variety of philosophies about human behaviour, change and social science have led to mutually exclusive concepts. For example, the difference between Schumpeter’s and Kirzner’s ‘entrepreneur’ is profound. This review using BM’s paradigms also found that any form of purposeful behaviour as implied in most theories of entrepreneurship is obliterated from enquiry if functionalist assumptions are too extreme. The work of Barreto (1989) and Hébert and Link (1988) support this conclusion, it was highlighted historically by Schumpeter (1954) and confirmed by Bygrave (1989) and Kirchoff (1991). Hébert’s and Link’s (1988) conclusion captures the point perfectly.

*“One lesson to be learned from all of this is that the problem of the place of entrepreneurship in economic theory is actually not a problem of theory. It is a **problem of method**. The history of economic theory clearly demonstrates that the entrepreneur was squeezed from economics when the discipline attempted to emulate the physical sciences by incorporating the mathematical method. Clearly, mathematics brought greater precision to economics, and thereby promised to increase powers of prediction. Yet the introduction of mathematics was a two-edged sword. Its sharp edge cut through a tangled confusion of real world complexity, making economics more tractable, and accelerating its theoretical advance. However, its blunt edge bludgeoned one of the fundamental forces of economic life – the entrepreneur. Since there was not then, and is not now, a satisfactory mathematics to deal with the dynamics of economic life, economic analysis gradually receded into the shadows of comparative statics, and the entrepreneur took on a purely passive, even useless role.” (Hébert and Link 1988: 158, added emphasis)*

Although this paper would prefer to substitute the term 'a problem of method' for the term 'a problem of metatheory', Hébert and Link (1988) illustrate the difficulty for the subject of entrepreneurship if it does not begin to undertake debate about the meta-theoretical assumptions guiding study. It is clear from the experience of the theory of the firm that

certain assumptions about reality and knowledge, which may have led to the use of the mathematical method, created difficulties for understanding dynamic economic systems that depend upon human endeavour. The essential point that can be drawn is that economic theories that adopted equilibrium models, applying extreme functionalist assumptions, have tended to eradicate meaningful interpretations of entrepreneurship from their inquiry as a consequence of the philosophies used.

## **CONCLUSIONS**

Ogbor (2000) described entrepreneurship as being dominated by the theories of social control and Grant and Perren (2002) described it as being dominated by functionalist enquiry. On the one hand, this study agrees with both critiques, it does appear that those studying entrepreneurship are applying major axioms within their study with limited critical reflection on these axioms. It is further evident that the study of entrepreneurship has not explicitly analysed the meta-theoretical assumptions guiding research and many of these do indeed appear to be dominated by functionalist enquiry. On the other hand, both critiques of the subject are somewhat in danger of over simplifying the differences, as this analysis found a range of historical and contemporary works that used assumptions based on other BM paradigms and found a great deal of diversity within the functionalist paradigm. For example, the core theories derived from Schumpeter applied Marxist concepts and there are significant elements of human action in many theories. In general, therefore, the research found that there was evidence of diversity in the metatheories used but there was less evidence of philosophies drawn from other BM paradigms, somewhat supporting Grant's and Perren's (2002) conclusions. This deduction can perhaps be viewed both positively and negatively. For those wishing to expand these foundations and draw more widely from other BM paradigms than is currently the case the current diversity indicates a tolerance for alternative views and approaches. For those wishing to create a more 'scientific' paradigm the dominance of functionalist enquiry does provide a foundation for further consolidation. Whichever view one prefers it is evident that more debate and reflection is required regarding the philosophical assumptions that are used to guide research endeavour in entrepreneurship.

Based on the analysis conducted in this study it is argued that extreme functionalist assumptions do little to help, and a great deal to harm, the study of entrepreneurship. The main research objective as outlined was to explore if there were any philosophical reasons why the concept of the entrepreneur disappeared from macro and micro-economic enquiry. The common thread discovered was the application of extreme functionalist assumptions in a

desire to construct a 'scientific' approach to the subject. The problems for such philosophical assumptions are outlined as follows:

- i) Extreme realist ontological assumptions tend to hypothesise that the social world represents an external structure, that is tangible and existing of many interrelated parts. Such an 'objective' assumption about social reality has led theorists to consider social behaviour to be somewhat unchanging and immutable, as is evident in the concepts of perfect information and the production function in the theory of the firm. Entrepreneurship, however, appears to be about change to social structures and social reality whether that is the exploitation of opportunities during periods of disequilibrium, via the deliberate creation of new opportunities or indeed through new forms of sensemaking in society. Such realist assumptions as those applied in extreme functionalism provide little opportunity for the 'entrepreneurial' function to change society in unpredictable ways.
- ii) Relatively strong forms of positivism appear to be problematic for the study of entrepreneurship because they require greater degrees of mathematical precision that depend on accurate definitions. Problems of definition remain inherent to the subject and where they have been drawn around the firm, the new venture and personality, they appear to lose much of the complexity and dynamism that is incorporated into wider interpretations of entrepreneurship. For example, most recently attempts have been directed at making 'entrepreneurship' synonymous with the behavioural act of venture creation. For a positivist this is inherently attractive, but it risks applying the same philosophical assumptions that led the theory of the firm to cast the 'entrepreneur' as the powerless figurehead of a 'firm', which itself became 'the reality' abstracted from the actions of people (Barreto 1989). A simplification of the definition can lead to more positivism and can lead to the development of a 'scientific' paradigm. When focusing purely on venture creation, however, one disregards Schumpeter's argument that entrepreneurship, as a function of change in society, occurs in variety of contexts (Schumpeter 1934).
- iii) Determinism applied in an extreme way also appeared to present difficulties for understanding the subject. Theories can rule out philosophies of human action and choice, which appear to be crucial to understanding entrepreneurship, by suggesting that forces outside of an individual's control are the main influence on their behaviour. Yet observations of 'entrepreneurship' suggest that the 'entrepreneur' takes control of

their environment in order to create new things; that they aspire to have independence from the domination of forces outside of their control (Chell 2000). Philosophies based on human action would appear to be relatively important when conceptualising how 'entrepreneurship' impacts on the development of new economic and social realities.

- iv) The use of mechanistic metaphors to explain how social systems work can also have negative consequences. Even within the economic theories where the focus of study is the function of 'entrepreneurship', assumptions about the nature of human behaviour are endemic. It would appear that one of the major philosophical dilemmas for the study of entrepreneurship is that it is intricately tied to philosophies about human nature. Mechanistic assumptions sit uncomfortably with the subject because they tend to rule out behavioural complexity and ascribe law like qualities to social interactions.

These philosophical difficulties illustrate that the subject of 'entrepreneurship' could gain significantly if the meta-theoretical base of study is broadened (Grant and Perren 2002). Based on this analysis one can certainly argue for expanding work in both BM's interpretive and radical structuralist paradigms. Interpretive approaches would introduce greater voluntarism, human action and be able to accept greater diversity in social meaning, while radical structuralist approaches could build on Schumpeter's application of Marxist concepts explaining how 'entrepreneurship', which can be conceived in this context as purposeful behaviour, creates radical change.

As well as drawing conclusions regarding entrepreneurship, this study found a number of issues to report about the use of BM's paradigms as heuristics. Once the operational issues were addressed, as outlined in the methodology, BM's paradigms were found to be useful and were particularly helpful regarding the recognition of philosophies that were largely implicit within studies. The research conducted confirms the findings of Holland (1990) and McCourt (1999) about the framework's utility for understanding philosophies in other areas of social science outside of organisational studies. Despite this utility, the paradigms did not transfer equally well to all economic approaches. This was principally because the radical change-regulation dichotomy was less relevant to approaches that focused on individual determinism as these tended not to allow for the influence of social factors; consequently questions of regulation versus radical change in social structures become irrelevant.

Difficulties regarding the debate about the paradigms boundaries did re-emerge during the analysis despite the methodological adaptations used and outlined in this paper. These

tended to confirm social constructionist argument that dualities such as those used in the BM paradigms are simplistic abstractions of complex philosophical debates (Harré 1993; Pujol and Montenegro 1999). They did so for a number of reasons. Firstly, arguments about incommensurability and permeability were both found to be limited when applying these paradigms as heuristics. Permeability between paradigms did not appear to occur in entrepreneurship because concepts tended to be reoriented to theorists' philosophical stance. For example, both trait theorists and social constructionists used the term 'trait'. In one theory, applying functionalist assumptions, it means the outward categorisation of one's inner personality and in the other, applying interpretive assumptions; it means the use of categories in language to typify actual behaviour. The evidence from this study would support the incommensurability argument (Jackson and Carter 1991). Incommensurability, however, became a difficult issue for the application of BM's paradigms for an entirely different reason. In BM's thesis there is an implicit expectation that theorists will have consistency in their philosophical assumptions within the subjective-objective dichotomy (ontological, epistemological *et cetera*) and the regulation-radical change dichotomy (change, conflict *et cetera*). This research, however, discovered a degree of elasticity between the different dimensions of the subjective-objective dimension. In some cases researchers appeared to apply a functionalist ontological assumption simultaneously with an interpretive epistemological one. To some extent this issue confirms the views of Willmott (1993a), when he questions the validity of linkage between dimensions used in the paradigms and confirms Pujol's and Montenegro's (1999) view about the extent to which dichotomies simplify complex debates. Incommensurability was found to exist when making individual philosophical decisions but not necessarily between paradigms, which tends to confirm views expressed by Scherer and Steinmann (1999). It is not clear why this was the case. On the one hand, it seems plausible that BM's framework may have over emphasised the link between different forms of philosophy, while on the other hand, it could equally be explained by the fact that theorists making implicit philosophical assumptions may be unaware that they are making seemingly incompatible assumptions, for example, between ontology and epistemology. This paper does not resolve the debate between incommensurability and permeability, what it does show however, is the importance of actively constructing and explaining the philosophical and axiological assumptions guiding the development of theory. It is possible to conclude from the work carried out that this has not been a key feature of study in entrepreneurship in the past and it is clearly something that needs to be addressed.

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