Role of History in Economic Theory: Critical Realism and Joseph Schumpeter’s Plea for Entrepreneurial History

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Abstract
Economic history has been sidelined in economic theory research. It is now the preserve of a small and declining number of economic historians seen by the economics mainstream as merely descriptive anecdotes of the past. There is one interesting case where one of the leading economists of the 20th Century attempted to incorporate history directly into economic theory. This paper discusses the case of Joseph Schumpeter’s attempt in the 1940s to stimulate the study of entrepreneurial history to enrich the economics discipline. The entrepreneurship function sits at the heart of Schumpeter’s economic theory, in particular his account of endogenous economic growth and development, and throughout his life he advocated a vital role for history in understanding the role of the entrepreneur in economic development. In his last years, Schumpeter wrote specifically on the role of entrepreneurial history in economic theory. This paper argues that Schumpeter’s vision has not been realised and that a critical realist methodological framework offers a suitable approach to addressing this lacuna between history and theory. Schumpeter’s own words in this late period can be seen as a prototype of the critical realism methodology. Critical realism allows the researcher to dig deeper into the lower stratum of entrepreneurial activity in order to understand the structures, powers and mechanisms underlying the observable results of entrepreneurial action within a defined historical period. This potentially explains the phenomena of economic development by exposing the causal factors of innovation and entrepreneurship and its impact on structural change. The paper argues that critical realism offers the most suitable research methodological framework for addressing dynamic complex issues of economic development with a form of entrepreneurial history that is not determinist. In this way, the paper resolves the tension that Schumpeter had with the openness of innovation and his adoration for ‘closed’ deductivist theory.

Keywords: Joseph Schumpeter, economic history, entrepreneurship, entrepreneurial history, Center for Research in Entrepreneurial History.

Note: In this paper all works attributed to Schumpeter’s works are cited without his name, but only the date of publication. All other citations have author attribution.
History of Thought

I wish to state right now that if, starting my work in economics afresh, I were told that I could study only one [field in economics] but could have my choice, it would be economic history that I should choose. (Schumpeter, 1994 [1954] p.12)

Schumpeter’s Interest in Economic History

Joseph Alois Schumpeter (1883-1950) began his economic studies in Vienna during the great Methodenstreit, a bitter dispute over methods that had raged since the 1880s. At the University of Vienna he encountered the thinking of the Classical School of Smith, Ricardo and Mill; the German Historical School of von Schmoller, Max Weber and Sombart; and the Austrian School of Walras, Jevons and Menger. He saw merit in elements from all three: the market theories of the Classical School; the revolutionary new thinking about marginalism of the Austrian School; and his love of history attracted him to the detailed work of the German Historical School. (McCraw, 2007; Swedberg, 1993). This, and the influence of Weber give some early clues to the holistic approach to economics Schumpeter was to take through his career: “When Schumpeter was young he was heavily influenced by Max Weber’s attempt to create a new and broad type of transdisciplinary economics, called Sozialökonomik, or ‘social economics.” (Swedberg, 1993 p.2) He even thought about writing a book reconciling the views of the Historical and Austrian Schools (McCraw, 2007 p.57).

As the twentieth century progressed, a holistic view of the discipline was increasingly at odds with the fragmentation and narrowing of economics, as the mainstream, particularly in the United States, focussed on mathematically driven theoretical analysis of the static market. However, Schumpeter’s view was that a complete understanding of economic phenomena, requires a fusion of theoretical, historical, statistical and sociological perspectives: “What distinguishes the ‘scientific economist’ from all other people who think, talk, and write about economic topics is a command of techniques that we class under three heads: history, statistics, and ‘theory.’ The three together make up what we shall call Economic Analysis” (1994 [1954] p.12). Later in the same chapter of History of Economic Analysis, Schumpeter adds a fourth technique: “…we shall find it useful, therefore, to introduce a fourth fundamental field to complement the three others…the field that we shall call Economic Sociology” and he explains its relationship to the other three: “… economic analysis deals with the questions [of] how people behave at any time and what the economic effects are they produce by so behaving; economic sociology deals with the question [of] how they came to behave as they do.” (1994 [1954] p.21)

Schumpeter’s interest in history as a technique of economic analysis was longstanding and not just something he discovered late in his life. While at different times, Schumpeter focussed on various aspects of these three perspectives, Swedberg (1991 p.55) traces his interest in the relationship between economics, economic history and sociology as far back as his first published book Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie [The Essence and Principal Contents of Economic Theory] (1908). Indeed, his exposure to the thinking of the Historical School was increased when, following his graduation from Vienna, he studied at the University of Berlin. (McCraw, 2007 p.57) This 1908 book was his attempt to convince members of this school of the usefulness of the theoretical approach (Michaelides and Milos, 2009 p.511).
Although Schumpeter argues that each of the four perspectives is necessary for the understanding of complex economic phenomena, none is sufficient on its own. He does not consider that economic theory alone can provide explanatory hypotheses, but requires complementary historical and statistical input: theory is just a “skeleton of economic life” – “bloodless” and in need of “live fact” (Swedberg, 1991 p.57) and Schumpeter’s later works indicate he did not regard each of the four to be equal contributors to a complete understanding of economics; history is the dominant element: “We cannot stress this point sufficiently. General history (social, political and cultural), economic history, and particularly industrial history are not only indispensible but really the most important contributors to the understanding of our problem. All other materials and methods, statistical and theoretical, are only subservient to them and worse than useless without them.” (1939 Volume 1 p.13)

Later in Business Cycles, Schumpeter explains how his ultimate goal is to present:

...a reasoned (conceptually clarified) history...of the economic process in all its aspects...to which theory merely supplies some tools and schemata, and statistics merely part of the material. It is obvious that only detailed historic knowledge can definitely answer most of the questions of individual causation and mechanism and that without it the study of time series must remain inconclusive and theoretical analysis empty. (1939 Volume 1 p.220)

Throughout his career the economic phenomenon that most fascinated Schumpeter was that of economic development, and it could only be seen in the context of history. As Michaelides and Milos (2009, p.496) explain, “Schumpeter’s notion of development is viewed in the context of the Schmollerian theoretical approach of integrating theoretical and historical concerns.” Schumpeter did not reject the usefulness of the popular equilibrium model as an analytical tool to analyse the stationary state of “ordinary routine work” (Schumpeter, 1939 Volume 1 p.40).

However, he realised that the “circular flow” equilibrium of stationary capitalism with static markets could not explain the dynamics of economic growth. In The Theory of Economic Development he identifies three characteristics of economic development: it is endogenous to the economic system and not a reaction to external events or other stimuli; it is discontinuous rather than occurring in smoothly changing cycles; and it is disruptive to the status quo – old equilibrium conditions are radically changed. The endogenous stimulus is, Schumpeter argues, innovation which he sees as the creation of ‘new combinations’ – the introduction of new products, the introduction of new production processes, the opening of new markets, the acquisition of new sources of inputs or the reorganisation of firms or industry sectors (1934 [1912] p.66). As his thinking developed, by 1942 he was suggesting the disruption caused by innovation, especially as new firms producing new products by innovative processes put old firms out of business, was traumatic. He argues that this “creative destruction is the essential fact about capitalism” (1994 [1942] p.83) and the entrepreneur is the prime agent of economic change.

What distinguishes Schumpeter of the late 1940s is his realisation that the roles of innovation and entrepreneurship as drivers of economic development, if they are to be widely accepted, need to be validated by historical evidence:

Entrepreneurial behaviour, in the Schumpeterian framework, made little sense without equal analytical attention to historical context in which it operated...Social scientific investigation of entrepreneurship needed to focus not only on entrepreneurs and their firms but also on the structure of and changes in the industries, markets, societies, economies, and political systems in which they operated. In the 1940s, Schumpeter repeatedly called for empirical historical studies of entrepreneurship. (Jones & Wadhwani, 2006b p.5-6)
Schumpeter’s Plea

The articulation of Schumpeter’s so-called plea appears at the beginning of his 1947 article, where he states: “Economic historians and economic theorists can make an interesting and socially valuable journey together, if they will. It would be an investigation into the sadly neglected area of economic change.” (1947 p.149) This article was a shortened version of his Comments paper (1946) that was presented to a meeting of the Economic History Association in 1947 (McCraw, 2007 p.471; Swedberg, 1991 p.67), and which contains greater elucidation of this plea.

The Comments paper refers to the “plan” contained in Arthur J Cole’s 1946 presidential address to the Economic History Association entitled An Approach to the Study of Entrepreneurship: A Tribute to Edwin F. Gay (Cole, 1946). In this, Cole argues that Ricardo’s failure to follow the lead of Cantillon and Say in distinguishing the unique role of the entrepreneur had “…rendered a great disservice to economics, and secondarily to economic history.” (Cole, 1946 p.3) He suggests that because economic progress is “…largely a consequence of innovations by individual enterprises copied by competing business units”, this constitutes an “…adequate social reason for studying entrepreneurship” (Cole, 1946 p.7). Although one can detect throughout Cole’s address the conflation of entrepreneurial and managerial functions that is present in much entrepreneurial literature, he concludes that: “To study the ‘entrepreneur’ is to study the central figure in modern economic history, and, to my way of thinking, the central figure in economics.” (Cole, 1946 p.8)

Cole argues that studying entrepreneurship history would provide an opportunity to synthesise work from a range of disciplines; including economics, business administration, business history, social history, psychology, and political science. In this context, Cole suggests several potentially productive areas for research. For example, the lack of historical research on the role of the profit motive:

…the hypothesis – almost invariably taken as self-evident – that the aim of all businessmen is and always has been the maximization of profits has been a primary element in economic theory over many decades, but actually no one has collected evidence to establish the truth of this contention…Actually we know precious little about the motivations of entrepreneurs or the changes in motivations over time. (Cole, 1946 pp.8-9)

Importantly, Cole argues that entrepreneurs do not act and make decisions in the abstract, but are constrained and enabled by “concrete living institutions” and social, economic and political factors, and therefore “…they can best be examined in concrete historical settings.” (Cole, 1946 p.12)

As might be expected, in Schumpeter’s Comments on Cole’s approach, he concurs with the fundamental indictment that classical and neoclassical economics ignores “…the most striking feature of capitalist life – the incessant revolution, by a ‘disruptive innovating energy’, of existing industrial and commercial patterns” and his contention that economic behaviour cannot be understood if the actual or anticipated effects of technological and commercial change are ignored. Then, Schumpeter restates his view about the importance of history in understanding economic change: “A satisfactory analysis of economic change…can only be achieved by historical work…historical work alone can furnish material from which to arrive at scientifically reliable propositions about economic change and, therefore, about entrepreneurship.” He stresses the importance of understanding what entrepreneurs actually do in practice: “…how they really work, what it is that conditions their performance and their failures, how they in turn shape the conditions under which they work, and, above all, whether any significant generalisations may be made about all this can be gleaned from history alone.” (1991 [1946] pp.406-7)
Schumpeter suggests areas for prospective historical research. For example, the nature, amount and distribution of entrepreneurial gains would benefit from the “...cumulation of carefully analysed historical cases is the best means to shed light on these things...” He highlights the tendency to emphasise the spectacular success of a single entrepreneur or firm bringing a new innovation to market. However, any entrepreneurial gain accruing to that individual or firm does not represent the gains to society of that process. The income and costs of the successful firm must be aggregated with those of competing entrepreneurs who failed in the attempt to bring the same innovation to market, and the losses incurred by “old” firms displaced by the new product must also be taken into account. “Detailed investigation of this process, which may take many forms, might teach us much about the actual working of capitalism that we are but dimly perceiving as yet.” (1991 [1946] p.416)

However, Schumpeter points out that historical work on entrepreneurship need not start from scratch: “...every textbook of economic history contains some material about the origins of entrepreneurs of historical standing...” But there is a long way to go:

We do not know enough in order to form valid generalisations or even enough to know to be sure whether there are any generalisations to form. As it is, most of us economists have some opinions on these matters. But these opinions have more to do with our preconceived ideas or ideals than with solid fact, and our habit of illustrating them by stray instances that have come under our notice is obviously but a poor substitute for serious research. (1991 [1946] p.419)

Schumpeter endorsed Cole’s plans for the Center for Research in Entrepreneurial History. He argued that since a vast amount of historical work will be needed, it “...will be most effective if carried out according to a definite plan, it is indeed convenient to constitute an agency – an ‘institute’ or committee – that is to undertake the tasks of exploration and co-ordination, while leaving plenty of room for the initiative of individual workers.” (1991 [1946] p.420). Schumpeter concludes by condensing his plea for more academically rigorous historical investigation into one question that should be asked “...with reference to every country, time, industry and, possibly, leading concern: who was it that acted how and why and what were the effects that can be traced to such action?” (1991 [1946] p.424 emphasis in original). From a contemporary perspective, Michaelides and Milos (2009 p.512) argue that this historical approach “…may be very useful for promoting dialogue between different schools of thought and for understanding current economic issues.”

The Development of Entrepreneurial History

Recognising the potential in Cole’s proposal, Schumpeter helped him to secure funding from the Rockefeller Foundation. As a result, the Center for Research in Entrepreneurial History was established at Harvard University in 1948. From the outset, Cole encouraged an interdisciplinary approach and the leadership team comprised Cole, sociologist Leland Jenks of Wellesley College, historian Thomas C. Cochran of New York University, and European economic historian Fritz Redlich. Younger graduate students attached to the Center included several that would subsequently make their names as economists, management academics and historians; including Alfred D. Chandler, David S. Landes, Hugh G.C. Aitken, Douglass North, R. Richard Wohl, and Adrien Taymans (Aitken, 1965; McCraw, 2007; Swedberg, 1993).

Schumpeter gave the Center his support by attending many of its meetings and presenting several notable papers, but at this time he was immersed in other work, particularly the writing of History of Economic Analysis. Cole remained the driving
force, although he was to later write that without Schumpeter’s “zeal and support…the Center might readily have ‘die a-borning’” (Cole, 1950; cited in McCraw, 2007 p.473; and in Swedberg, 1993 p.172, but not locatable in the cited source).

Some of the younger researchers at the Center, including Aitken, saw the “Schumpetarian system” as sophisticated, detailed and essentially a complete theoretical construct. However, this group of “…rather aggressive egotistic young men…” did not see the clearing up of minor obscurities and “…the pedestrian work of historical illustration…” as an appropriate use of their talents. Although in awe of Schumpeter and his intellect, they “…would prefer not to become known as Schumpetarians…” and “…would rather start afresh, with new assumptions and a new point of view, and create [their] own theories.” (Aitken, 1965 p.10)

Then there was the issue of philosophical direction. These young scholars were a product of the increased narrowing, and mathematisation of economics. Their positivist deductivist outlook was not in harmony with Schumpeter’s ‘older’ more holistic approach. As Aitken was to later recall: “Our positivist stomachs rebelled at the taint of mysticism in Schumpeter’s concept of creativity; and our ideological pallets, conditioned during the late 1930s, found the heroic and aristocratic elements in his thinking distasteful.” (Aitken, 1965 p.10)

Schumpeter died less than two years after the establishment of the Center, but during the ten years of its existence, it produced an impressive body of work, much of it published in its own journal, Explorations in Entrepreneurial History. A book, Change and the Entrepreneur, contained an account of the first two years’ activities with major articles by Schumpeter, Cole, Jenks and Cochran (Anon, 1949). The sociological approach to business history pioneered by Jenks in his study of the development of American railroads (Jenks, 1944) was extended by him and Cochran to become the dominant approach to historical research on entrepreneurship in the 1950s. Leaving modern mainstream anti-historical economics behind, this work on economic sociology sought to understand how historical context and social structure shaped the character of entrepreneurship. The stream of work resulting from this approach “…amounted to the cumulative case that the levels and character of entrepreneurship varied significantly over time and place…” (Jones & Wadhwani, 2006b p.7). This determinist argument was rejected by Alexander Gerschenkron, another associate of the Center, who pointed out that it ignored one of Schumpeter’s basic points, that entrepreneurs were as much agents of change as they were constrained and enabled by their socio-cultural environment (Jones & Wadhwani, 2006a p.11). This created a dilemma for methodology within the Center – and Schumpeter was not around anymore to provide wise counsel.

By the 1960s, American business and economic historians were increasingly following orthodox neoclassical economic theory and quantitative methods in their research and rejecting the multidisciplinary approach of Cole and Schumpeter. The rising prominence of neoclassicism’s traditional cynicism of entrepreneurship as a concept was reflected in the relaunch of Explorations in Entrepreneurial History as Explorations in Economic History, and its changed emphasis to quantitative studies. Jones & Wadhwani (2006a p.7) have argued that Chandler’s ambivalence about the autonomous role of entrepreneurs, and his organisational approach to business history, with its emphasis on the role of the American corporation in economic development, influenced a great many researchers and led to even greater marginalisation of entrepreneurial history from the ‘serious’ discipline of positivist economics and from the emerging business management literature. The view of Cuff (2002) on Chandler’s work is that his engagement with entrepreneurship, and his “implicit dialogue with Schumpeter” continued throughout his life, although admitting that the determinism of Chandler’s seminal book, The Visible Hand, “…make[s] the case for individual-centered entrepreneurship a difficult one to sustain…” (2002,
Thus, Schumpeter’s plea for economics to consider entrepreneurial history as the analytical approach to the crucial issue of economic change fell on deaf ears.

In parallel with these developments the writing of entrepreneurial biographies has continued. While a minority are intellectually rigorous in their approach (e.g. Hughes (1986); McCraw (1997)), many more are hagiographical or are written for a purpose, for example, to ‘jingoistically’ support assertions about the supremacy of the American firm. Many are insufficiently rigorous in their methodology to provide any basis for the derivation of meaningful generalisations in the way Schumpeter advocates.

The Incertitude of Schumpeter’s Methodology

One can infer from Schumpeter’s writings, that if history is to play the leading role in understanding economic phenomena that his plea asked for, then not just any history will do. It must be history with a specific purpose. Narrative or descriptive accounts, while potentially useful, are insufficient – it must be history that is capable of explaining causation and identifying the mechanisms that cause individual observable events, and it must be capable of arriving at these explanations independently from the theory it is to validate. As Swedberg observes, the history that Schumpeter had in mind was analytical: “The result of the study of economic change should ideally be ‘an analytical history of enterprise’ – not just ordinary economic history.” (1991 p.68 emphasis in original)

One senses throughout Schumpeter’s arguments that while he was aware that “ordinary” economic or business history would not deliver the kind an explanatory analysis he was seeking, he had no alternative methodology to offer. On the one hand, he calls for a “critical systemization” of historical facts and “…an organised effort to penetrate through and beyond them toward reliable generalisations.” On the other, he is wary of the determinism to which this can lead and recognises that causal factors do not always produce the same empirical results: “As a rule, no factor acts in a uniquely determined way and, whenever, it does not, the necessity arises of going into the details of its modus operandi, into the mechanisms through which it acts.” (1991 [1946] p.410-11) This is an example of the “tension” in Schumpeter’s writing observed by da Graça Moura:

Throughout Schumpeter’s work, as I see it, there is a repeated attempt to express a world view that turns on openness – innovation and structural transformation are his main concerns – with a deductivist framework that is accepted largely a priori and just cannot capture these features (da Graça Moura, 2004, p.281).

Da Graça Moura argues that Schumpeter’s tendency to deductivism is a consequence of a misunderstanding regarding natural science rather than “…a product of sustained reflection on the nature of the social world.” (da Graça Moura, 2004 p.280)

Indeed, as da Graça Moura points out, Schumpeter himself suspected that he may be:

…tainted with Scientism…[a] term introduced by Professor von Hayek to denote the uncritical copying of the methods of mathematical physics in the equally uncritical belief that these methods are of universal application and the peerless example for all scientific activity to follow. (1994 [1954] p.17)

A conceivable reason for the “tension” noted by da Graça Moura is that Schumpeter’s preference for positivist methods is inconsistent with his apparent
ontological understanding that causation depends on the activation of underlying causal mechanisms. As Sayer (2000 p.14) observes, the cause of an event has “…nothing to do with the number of times we have observed it happening.” Therefore, adoption of positivist/deductivist methods a priori, as described by da Graça Moura, may well lead to frustration at being unable to delve into the mechanisms underlying an observable event. Sayer (2000 p.14) argues that “explanation depends instead on identifying causal mechanisms and how they work, and discovering if they have been activated and under what conditions”, which is not possible through positivist methods that depend on gathering data about repeated occurrences. As he suggests, such methods “…at best…might suggest where to look for candidates for causal mechanisms.” (Sayer, 2000 p.14)

The above articulation of Schumpeter’s methodological tension has the consequence of forming a credible conclusion about Schumpeter’s body of theoretical work – that it critically serves as an indicator of where to look for the causal mechanisms of economic growth. We therefore argue that this represents a point of departure for an intellectually rigorous investigation, grounded in an appropriate ontological and epistemological framework, into these causal mechanisms. Further, we suggest that the lack of such an appropriate framework is largely responsible for the fragmentation of efforts to date. The positivist/deductivist approach that is almost de rigueur today in economics has failed to deliver the explanatory account of economic growth that Schumpeter was seeking.

In summary, we concur with Jones and Wadhwani (2006b)’s conclusion that the style of entrepreneurial research envisaged by Schumpeter and Cole has “lost traction” in the drift towards the history of the corporation. Also, the current narrow view of the economic world, with its emphasis on positivist, deductivist method, is an anathema to Schumpeter’s eclectic and holistic approach and has indeed left entrepreneurial history “…fragmented and usually marginal to mainstream research agendas.” (Jones & Wadhwani, 2006a p.32) We suggest that Schumpeter’s plea in its original form has effectively been ignored by the mainstream economics discipline. We also believe that Schumpeter’s plea for greater interaction between the theory and history of entrepreneurship is essential to understanding the phenomena of economic growth, and the causal factors of innovation and entrepreneurship is as relevant today as they were 60 years ago, but this needs to be approached within a methodological framework that is likely to yield plausible results.

We are not suggesting that the vast existing body of secondary literature is of no value to the approach we are proposing. Works by Chandler, Landes, Mokyr, Hughes, North and McCraw – to name just a few of the more prominent contributors – contain important descriptive accounts of business men and women, firms, markets and industries and, among more recent publications, The Invention of Enterprise (Landes et al., 2010) provides a comprehensive overview of the global history of entrepreneurship. However, these works are not part of mainstream economics discipline’s focus of attention at all. Instead, these historical accounts can provide vital details that can be abstracted as part of the deeper analysis we are advocating in response to Schumpeter’s plea. Our intention, where possible, is to build on existing descriptive content, not the resulting analysis, of the existing literature.

Methodology

Critical Realism: An Overview

The argument presented here is that a critical realist approach provides the appropriate deeper link required between entrepreneurial history and the theory of
economic development. In order to develop this argument further, this section is a brief outline of the principal features of critical realism and its application to social science research. Table 1 sets the scene by locating critical realism in the context of the two contrasting established paradigms in methodology: the positivist/quantitative methodology dominated by deductivist academic disciplines that consider “scientific rigour” as its highest priority (e.g. economics); and the constructivist/qualitative methodology dominated by inductivist academic disciplines that consider “subjective valuation” as its highest priority (e.g. gender studies). As can be seen from the table, critical realism straddles the divide between the two established paradigms.

Contemporary critical realism has emerged from work on a realist philosophy of science in the 1970s by Rom Harré (Harré, 1970) and Roy Bhaskar (Bhaskar, 1978, 1998 [1979]). The principles of critical realism were first applied to the natural sciences and involve a shift in philosophical emphasis from epistemology (study of the way knowledge is obtained) to ontology (the study of being or existence), and a focus on the mechanisms that cause events rather than the events themselves. In The Possibility of Naturalism, Bhaskar (1998 [1979]) extended these principles to the realm of the social sciences, which is the focus of this overview.

Table 1: Methodological Approaches

<table>
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<th>Positivism</th>
<th>Critical Realism</th>
<th>Constructivism</th>
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<tbody>
<tr>
<td><strong>Ontology</strong></td>
<td>Single objective reality.</td>
<td>Domains of real, actual and empirical.</td>
<td>Multiple constructed realities.</td>
</tr>
<tr>
<td><strong>Epistemology</strong></td>
<td>Knower and knowledge are independent.</td>
<td>Knower inseparable from transitive dimension of knowledge.</td>
<td>Knower and knowledge inseparable.</td>
</tr>
<tr>
<td><strong>Axiology</strong></td>
<td>Inquiry is value-free.</td>
<td>Inquiry is value-laden, but not value-bound.</td>
<td>Inquiry is value-bound.</td>
</tr>
<tr>
<td><strong>Causation</strong></td>
<td>Detectable through observation of event regularities.</td>
<td>Causation unrelated to event regularity, but explained by underlying causal mechanisms and how they produce observable events.</td>
<td>Impossible to distinguish cause and effect</td>
</tr>
<tr>
<td><strong>Generalisation</strong></td>
<td>Time and context-free generalisations from event observation possible.</td>
<td>Generalisation from underlying causal mechanisms more reliable than from event observation.</td>
<td>Time and context-free generalisations impossible.</td>
</tr>
<tr>
<td><strong>Primary mode of inference</strong></td>
<td>Deduction.</td>
<td>Retroduction.</td>
<td>Induction.</td>
</tr>
</tbody>
</table>

Source: Adapted from Tashakkori and Teddlie (1998)

In common with other forms of realism, critical realism contends the world around us exists independently of our knowledge of it. The objects of our study – whether natural objects, physical processes or social phenomena – are the intransitive dimension, while the theories and ideas of reality that make up our knowledge of these objects are the transitive dimension. (Bhaskar, 1978 p.21)

The objects in the intransitive dimension are generally unchanging; while transitive knowledge is socially produced, is fallible, and evolves over time. If this were not so,
it would not be possible to have rival theories about the same objects of study. Neither would it be possible for theories about the unchanging real world to evolve; no-one would argue that the shape of the Earth changed when our flat earth theory changed to a round earth theory.

Bhaskar argues that objects possess inherent structures and causal powers or generative mechanisms. It is the exercise of these powers that cause events to occur or an object to behave in a given manner. These powers still exist even if not exercised and may also produce no observable events even if exercised, for example, if a counteracting power is exercised at the same time. The identification of these inherent mechanisms that have the potential to cause events is the fundamental purpose of scientific study, in the social as well as the natural sciences. Since these mechanisms may or may not be activated, and if activated may or may not produce an observable event, they need to be analysed for tendency, necessity, sufficiency and potential – not only what was necessary for an event to happen, but whether it was sufficient on its own to cause the event and what might happen if it is activated again (Bhaskar, 1978 pp.229-238).

**Empirical Research in Critical Realism**

There are significant implications for empirical research within a critical realism framework, and these implications go to the heart of Schumpeter’s plea. Harré (1970), Bhaskar (1978) and Bunge (2008) are among those who are critical of empiricism for its view that reality is restricted to the observable. This “flat” ontology contrasts with critical realism’s concept of stratification, where generative mechanisms belong to different strata, such as chemical, biological, psychological and social. The activation of these mechanisms in one strata produce new phenomena at a higher level through the process of emergence. Figure 1 is an example of stratification in the natural world. Another key concept is that a resulting phenomenon possesses its own emergent properties that cannot be reduced to those of its constituents. For example, water has physical properties that neither of its constituent elements, oxygen and hydrogen, possess. Bhaskar (1978) therefore argues that reductionist explanations that take no account of emergent properties are deficient.

**Figure 1: Example of stratification in the natural world**

<table>
<thead>
<tr>
<th>Stratum I</th>
<th>2Na + 2HCl = 2NaCl + H₂</th>
<th>explained by</th>
</tr>
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<tbody>
<tr>
<td>Stratum II</td>
<td>theory of atomic number and valency</td>
<td>Mechanism 1</td>
</tr>
<tr>
<td>Stratum III</td>
<td>theory of electrons and atomic structure</td>
<td>Mechanism 2</td>
</tr>
<tr>
<td>Stratum IV</td>
<td>[competing theories of sub-atomic structure]</td>
<td>[Mechanism 3]</td>
</tr>
</tbody>
</table>

*Source: Bhaskar (1978 p. 169)*

This stratified ontology is fundamental to addressing Schumpeter’s plea, since it sets up a model to take entrepreneurial history beyond deductive observation of entrepreneurial behaviour and action. It supports attempts to dig deeper into the lower strata of entrepreneurial activity to understand the structures, powers and
mechanisms underlying the observable results of entrepreneurial action in the context of a defined historical period. This potentially provides an explanation of the phenomena of economic development by exposing the causal factors of innovation and entrepreneurship, which are at the heart of Schumpeter’s own research agenda.

**Causation in Critical Realism**

Critical realism takes a distinctive view of causation, particularly in its rejection of positivist explanatory models. The key objections are: (i) that they start from a false assumption in empiricist ontology that reality is limited to events and sense-experience observations; (ii) they account for causality as regularity in observed events, which does not explain anything; and (iii) they do not identify any causal mechanisms (Danermark et al., 2002 p. 108).

Event regularities are, in fact, only likely to occur under the special conditions of closed systems, when the underlying generative mechanisms can operate in isolation from other influences including the activation of other mechanisms (Danermark et al., 2002 p. 199; Sayer, 2000 pp. 14-15).

**Figure 2: Structures, Mechanisms and Events**

![Figure 2](source.png)

*Source: (Sayer, 1992 p.117)*

Figure 2 illustrates a critical realist model of structures, mechanisms and events, as they exist in the real world of complex, open systems, such as economic activity. When the real objects or structures activate their causal mechanisms, observable events are produced. The nature of the event, and what we humans observe, is determined by the interaction of the underlying causal mechanisms and, because events depend on contingent conditions, they are not reliably predictable. “A particular mechanism can produce completely different [results] at different times, and inversely the same event can have completely different causes.” (Danermark et al., 2002 p. 58) For example, observable event E7 occurs when object S4 activates its generative mechanism M5. However, the activation of that same mechanism (M5) may produce a different observable event (E6) when a modifying mechanism (M4) is activated by another object or structure (S3).
It is because different results can be produced by the same causal mechanism that generalisations based on the frequency of observable events can be misleading. Critical realists argue that the cause of an event is not related to the number of times it can be observed, but explanation depends on understanding how the underlying causal mechanisms operate, the conditions under which they do so, and whether they have been exercised in the case under investigation (Sayer, 2000 p. 14).

Unlike mainstream economic explanation, critical realism accommodates the intentional actions of a human agent in society, which may produce different results depending on the countervailing or amplifying mechanisms of societal institutions within which he or she is operating. Conversely, the results produced by societal structures may be modified by the actions of human agents and the actual events generated are affected by the prevailing spatio-temporal conditions. As more historical studies are conducted using critical realism in different contexts, and as more patterns of generative mechanisms are identified and understood, more reliable generalisations about the role of entrepreneurship in economic development should emerge.

Critical Realism and Research Methods in Economics

Critical realism supports a wide range of research methods, both qualitative and quantitative, and advocates that the choice of method should depend on the nature of the phenomenon under investigation. This differs from positivist and constructivist approaches, which tend to be more dogmatic about method. Indeed, one of Tony Lawson’s major criticisms of mainstream economics as an explanatory endeavour is its pre-occupation with mathematical modelling. He says:

…it is my assessment that the noted problems of modern economics stem from a widespread failure of the modern discipline to match its methods to the nature of its subject matter. Indeed, modern economics provides a very clear example of a rather narrow way of doing being unthinkingly and erroneously universalised a priori, with unfortunate consequences (Lawson, 2003 p.xvii).

Further, Easton (2010) suggests that critical realism can provide the ontological and epistemological framework often missing from case study-based research, which is essentially what Schumpeter was asking for in economics:

I argue...that critical realism provides such underpinnings and seems ideally matched to case research...A critical realist approach to case research involves developing a research question that identifies a research phenomenon of interest, in terms of discernible events, and asks what causes them to happen (Easton, 2010 pp.127-8).

Since Bhaskar’s underlying philosophical work, arguments for the use of critical realist approaches have been advanced in a variety of fields, including: economics (Lawson, 1997, 2003); economic geography (Morgan & Sayer, 1985); management studies (Fleetwood, 2007; Fleetwood & Ackroyd, 2004); sociology (Sayer, 2000); historical sociology (Steinmetz, 2004); as well entrepreneurship studies (Blundel, 2007). And Blundel, in particular, has argued the case for critical realism as a “vehicle” for entrepreneurship research and called for more “test driving” of the approach in the form of empirical research (2007 p.68). Thus, critical realism is a vehicle by which Schumpeter’s plea to economics can be addressed.

Critical Realism and Schumpeter’s Plea

From this brief outline of critical realism’s salient features, one can reflect back on Schumpeter’s plea for an openness to investigate innovation and structural
transformation. The type of investigation Schumpeter envisaged cannot be conducted within the narrow deductivist framework of current mainstream economics, and explanations he was seeking have not been delivered by the vast amount of entrepreneurship research that has followed the same deductivist logic and pseudo-scientific rigour of economics (Courvisanos and Mackenzie, 2011). Schumpeter was wary of the determinism to which simple empirical historical accounts can lead and recognised that causal factors do not always produce the same observable results. There is much in Schumpeter’s call for “critical systemization” of historical facts that resonates with critical realism.

We argue, therefore, that critical realism offers the most suitable research framework for addressing many aspects of Schumpeter’s plea. For example, his call for more in-depth studies: “It seems to me that, in order to understand fully a social system, or even a particular sector of it, it is necessary to go much more deeply into the details of functions, types, and performances than those analysts seem inclined to do who are content to work with types that are no more than general labels.” (1991 [1946] p.426)

The use of case study method within a critical realism framework is likely to answer his call for the “…cumulation of carefully analysed historical cases” (1991 [1946] p.416), while critical realism’s accommodation of modifying spatio-temporal conditions, may help answer his question: “Does the importance of the entrepreneurial function decline as time goes on?” (1991 [1946] p.417) The concept of a stratified reality with underlying generative mechanisms and causal powers, offers a means to answer Schumpeter’s call for “…an organised effort to penetrate through and beyond…toward reliable generalisations” and “…the necessity…of going into the details of [a historical phenomenon’s] modus operandi, into the mechanisms through which it acts.” (1991 [1946] pp.410-11)

At a more general level, we consider that critical realism offers the methodological framework for deeper causal analysis that we noted earlier is often missing from Schumpeter’s writing, and we concur with Lawson’s contention that the lack an ontological conception, such as critical realism, explains the tension in his work as noted by da Graca Moura (Lawson, 2003 p.57). In light of this, and in the spirit of Blundel’s call for more “test driving” of empirical research using critical realism (2007 p.68), one of the authors of this paper is using the historical case study method within a critical realist framework to understand the activities of Scottish entrepreneurs in Australia during the rapid economic development of the Colony of Victoria that followed the Central Victorian gold rush of 1851. We would encourage other researchers interested in answering Schumpeter’s plea to consider adopting a critical realist approach to their own investigations.
References


