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The impactful potential of critical realist methodologies in entrepreneurship studies

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Abstract

This chapter argues for the unrealised potential value of methodologies derived from a critical realist research philosophy in the field of entrepreneurship studies. Critical realism offers methodological alternatives that, through the generation of new insights into social relations, social structures and key generative mechanisms, can offer significant value for entrepreneurship researchers. Reflecting on their personal experiences researching from a critical realist perspective in entrepreneurship studies, the authors explore how this research philosophy can extend the field of inquiry and promote new perspectives. The chapter explores this in relation to the specific topic of enterprise policy and demystifies some aspects of critical realism by setting out some of its basic principles to demonstrate their potential to develop new insights. Further, this approach can create significant impact, for example through the development of effective interventions. The chapter concludes by identifying implications for enterprise policy development, implementation and evaluation.

Key words: realism; enterprise policy; methodology; evaluation

Introduction

In this chapter, we explore the persistent, unrealised potential value of methodologies derived from a critical realist research philosophy in the field of entrepreneurship studies. We explore some of the ways in which critical realism offers methodological alternatives through the generation of new insights into social relations, social structures and key generative mechanisms. In doing so, a critical realist position provides a starting point for research into entrepreneurship studies that can extend the field of inquiry and promote new perspectives. In turn, critical realism can offer significant value for efforts seeking to raise entrepreneurial opportunity and to reshape inclusive enterprise through interventions of policy and practice.

We explore the potential of critical realism by demonstrating what research looks like through the eyes of critical realist researchers. Both Robert and Oliver, as co-authors of this chapter, have engaged in a variety of critical realist research and taught this research philosophy on doctoral level programmes (although not all our research is critical realist). It is on the basis of our experiences that we explore what we believe to be the significant value that critical realism offers to the important topic of enterprise policy (and some of the obstacles to realising this value). With enterprise policy being deployed so widely as to encompass sector-specific interventions to help

businesses as well as contribute to societal transformation through agendas such as ‘levelling up’, re-framing how enterprise policy is developed, implemented and evaluated becomes vital. Instead of asking ‘what works?’ in enterprise policy, adopting a critical realist perspective extends the question to “‘what works for whom, in what circumstances, in what respects, and how?’” (Pawson et al., 2004: v).

We begin the chapter by setting out in general terms what is meant by critical realism and the origins of this research philosophy. We then discuss what is distinctive about this approach. Specifically, we focus on three central ideas that we have found to be useful in our own research on enterprise policy: transitive and intransitive dimensions; open systems; and the implications for evaluation. We conclude by highlighting what we believe to be an underutilised potential of critical realist research to generate new and potentially powerful insights into entrepreneurship with significant positive societal impact.

What is critical realism?

Robert first engaged with critical realism in his PhD research, which explored employment relationships in small firms (see e.g. Wapshott, Mallett & Spicer, 2014; Mallett & Wapshott, 2014). He found it to be useful in moving beyond simply recording observed occurrences, such as behaviours or outcomes, towards deeper engagement with the dynamics underlying those events and the context in which they arise. As we began to collaborate on various projects subsequent to our PhDs, Oliver then had to catch up with a lot of reading! Critical realism can, at first, be quite difficult (or at least it was for us). Some of the foundational texts are quite dense and are rooted in philosophical traditions that may be unfamiliar to Business and Management researchers. However, as we set out in this chapter, the core ideas are not particularly complicated and reflecting on them and their implications soon reveals their potential. It is this reflection and realisation that we want to explore in this chapter.

The development of the critical realist research philosophy arose through the work of several authors, initially as a philosophy of science (see e.g. Harré 1972/1984). The most prominent author in this development was Roy Bhaskar, principally through two books in the 1970s, *A Realist Theory of Science* (1975), which developed transcendental realism as a philosophy of science, and *The Possibility of Naturalism* (1979), which explored the implications of this approach for the

human and social sciences in terms of what Bhaskar refers to as critical naturalism. As Ramoglou (2013: 463) notes, the resulting approach is commonly known by the portmanteau term 'critical realism', and it is this form of realism that will be explored in this chapter.

This is a specifically philosophical approach, where Bhaskar (1975/2008: 10) sets out philosophy as having the potential to act as the 'the under-labourer, and occasionally as the mid-wife, of science.' Here he cites Locke (1690/1997: 11) who explains this role: 'It is ambition enough to be employed as an under-labourer in clearing the ground a little, and removing some of the rubbish which lies in the way to knowledge.' The under-labourer role therefore captures the way in which critical realism is not a theory but a metatheory (a theory about theories and about how (social) scientific knowledge is produced). Utilising this approach, this chapter seeks to 'clear the ground a little' in the application of a critical realist approach to entrepreneurship studies. We are keen to demystify some aspects of critical realism by setting out some of its basic principles and their relevance for entrepreneurship studies in general and, more specifically in terms of our own research interests, for enterprise policy.

For a critical realist approach, ontology determines epistemology. This means that the nature of the world determines how we gain knowledge about it. Realists understand the world as having layers of reality (a 'stratified ontology'). In broad terms, Sociology is at a different level from Psychology, from Biology, from Chemistry and so on. As a result, to gain knowledge we need to use different methods: at a biological level we will need to use different methods than for the psychological or social (this also makes readily apparent the value of interdisciplinary research teams). In relation to entrepreneurship studies, we can see this in practice where some researchers study entrepreneurs at a biological level, proposing the use of quantitative and molecular genetics (Nicolaou and Shane, 2009), others focus on individual psychology, studying psychological constructs such as personality dimensions or cognitive biases (Frese and Gielnik, 2014) and others take a more social perspective, for example studying the social relations in which entrepreneurs are embedded (Van Staveren and Knorringa, 2007).

There is interaction between these levels such that the emergent properties at one level can have a causal effect on another. For example, where the potentialities created by an individual entrepreneur's psychology are constrained by social structures. Importantly, this is not a

reductionist argument where everything boils down to the most fundamental particles or physical forces. There are potential underlying mechanisms at each stratum but the 'deeper level' of explanation does not explain away one at a 'higher' stratum. Instead, this approach provides a way of thinking about both vertical explanations (of one mechanism by a simpler one underlying it) as well as horizontal explanations (mechanisms and antecedent causes; Collier, 1994). It is understanding these generative mechanisms that offers potentially powerful insights into entrepreneurship.

Bhaskar (1975/2008: 14), writing about natural science, argues that: 'The real basis of causal laws are provided by the generative mechanisms of nature'. For example, gravity, as the attraction between things with mass or energy, causes the apple to fall to the ground from the tree. Evolution results from the mechanism of natural selection. It is important to understand the generative mechanisms at work and the ways in which they operate, which is contingent on context. In applying a critical realist approach to the human or social sciences, a key consideration is therefore what these underlying mechanisms might look like. For example, we must consider the ways in which a generative mechanism from social structures, such as racism, has causal properties and how this may differ from a natural mechanism such as gravity. Clearly there are differences between gravity and racism, not least in the social construction of the latter. However, the effects of structural racism are real and they need to be understood. Methodologically, there are implications not only for the reality of such social relations and social structures and their effects but also how this can be identified empirically and studied.

Key developments of methodological importance, and the resources we have drawn upon in our own research, include the work of Andrew Sayer (1984, 2000), Andrew Collier (1994, 2005) and, in the realm of policy evaluation specifically, Ray Pawson (e.g. Pawson & Tilley, 1997). Other influential authors include Tony Lawson (in Economics) and Margaret Archer (initially in Education, later in Social Theory more generally). In our own academic discipline, a key methodological text is that edited by Edwards, O'Mahoney & Vincent (*Studying Organizations Using Critical Realism: A Practical Guide*). However, for those first engaging with this literature, it is important to emphasise that this is not a unified body of theory and there are important differences between these authors. It should also be noted, in line with a recent introductory textbook on critical realism (Buch-Hansen & Nielsen, 2020: 139), that it remains a 'contender

perspective'. There are no disciplines where critical realism is the dominant approach but, rather, it tends to act as an alternative used to challenge dominant understandings.

While it may not be the dominant perspective, critical realism has been influential in recent studies of entrepreneurship. There are claims that realism underpins key features of entrepreneurship such as opportunities (Alvarez & Barney, 2013) and entrepreneurial ecosystems (Wurth *et al*., 2021). However, such claims for the influence of the approach remain contested and potentially based on a misunderstanding of critical realism (in the case of opportunities, see Ramoglou, 2013) or as yet under-explored concepts (in the case of ecosystems). The potential value of a critical realist approach to entrepreneurship studies has been more clearly demonstrated in studies of digital entrepreneurship (Martinez Dy *et al*., 2018), social entrepreneurship (Hu *et al*., 2020), entrepreneurial action (Kitching & Rouse, 2017), intersectional reflexivity (Meliou & Mallett, 2022) and new migrant business owners (Ram *et al*., 2015).

We believe that the methodological implications of critical realism for entrepreneurship studies, while discussed in valuable ways by authors such as Blundel (2007), Hu (2018), Mole (2012), Vincent *et al*., (2008) and Vincent *et al*., (2014), nonetheless remain relatively underdeveloped and underutilised. For instance, we have noticed in the popularity of this research philosophy for doctoral students and postgraduate dissertations that a critical realist approach is sometimes treated simply as a synonym for mixed methods. In this chapter, we therefore argue that there remains significant scope to explore and to realise the full methodological potential of critical realism. Drawing on our own experiences in researching enterprise policy, we hope to help clear the ground for a critical realist approach in entrepreneurship studies and to set out some areas where we believe there is potential for new insights to be gained.

What is it about enterprise policy that might create an impactful approach for critical realism?

To demonstrate the potential of a realist approach, this chapter focuses on an area of entrepreneurship studies that our own research has been concerned with in recent years: enterprise policy. The topic of 'enterprise policy' encompasses those policies of support that are aimed at start-ups (entrepreneurship policies) and existing firms classified as small- and medium-sized enterprises (SME policies; Lundström *et al*., 2014: 946). Governments intervene in a range of

ways, acting as '…a regulator, incentiviser and facilitator, or as a supplier' as well as a supporter of other, non-governmental forms of influence and support (Bennett, 2014: 25) with 'virtually all organs of government [having] programs which qualify as either EP or SMEP' (Lundström *et al*., 2014: 946). Such interventions have existed for a long time, in the UK at least since the 1930s (Mallett & Wapshott, 2020), gaining significance in political discourse, scale and investment since the 1970s. A recent National Audit Office report on business support, the majority of which is specifically targeted at SMEs, gave an expenditure figure of £17bn (NAO, 2020). The scope of actions covered by enterprise policy, and the range of actors involved, indicate that the enterprise and entrepreneurship landscape can be characterised as 'complex social interventions' and, therefore, suited to realist analysis (Pawson *et al*., 2004).

Despite significant efforts and expenditure, UK enterprise policies have often failed to achieve the aims of policymakers (Bridge, 2010) and persistent doubts surround their necessity and cost effectiveness (Curran, 2000). Blackburn & Schaper (2012) present three enduring challenges to the development of enterprise policy: a lack of progress due to poor learning from previous experience; poor use of the evidence base or rigorous evaluation; and poor collaboration and information sharing between relevant parties. Many policies have lacked rigorous evaluation (NAO, 2020) and where evaluation has taken place it has proven challenging and produced mixed results (Curran, 2000; Mallett & Wapshott, 2020). Critical considerations of specific policies have identified problems with displacement and deadweight effects (Curran & Storey, 2002; Nightingale & Coad, 2016; Wren, 1996) as well as a lack of understanding of the challenges identified (Nightingale & Coad, 2016). Researchers have also questioned whether policies are sufficiently coordinated (Huggins & Williams, 2009; Turok, 1997), whether available research evidence is being overlooked in forming policy (Arshed *et al*., 2014; Curran & Storey, 2002) and whether government ministers and policymakers have sufficient expertise to intervene in timely and relevant ways (Bennett, 2008).

Enterprise policy is therefore an important topic for study. It is also a topic in need of new perspectives and insights. As this chapter will demonstrate, we believe that a critical realist approach offers significant potential for advancements here and in wider entrepreneurship studies. In this chapter we will explore three key methodological areas of relevance to the development of this perspective to entrepreneurship studies, exploring specific examples from enterprise policy:

transitive and intransitive dimensions; open systems; and the implications for evaluation. We conclude by discussing some important policy implications of this approach.

Transitive and intransitive dimensions

Critical realist inquiry is rooted in a distinction between the relatively intransitive nature of the social world and transitive knowledge of that world - that our knowledge of the world is different from the world itself. There is a (social) world that objectively exists and, to all intents and purposes, is (relatively) stable and fixed. However, our understanding of that world is subjective and open to change (Sayer, 2000). Social structures exist independently of actors' identifications or interpretations (they pre-exist us as individuals and pre-exist our actions). Importantly, actors don't need to be aware of those structures in order for the structures to have an influence on them (for example, no matter how much certain commentators or politicians deny the existence of structural racism, this does not diminish its effects). How people experience the world is not exhaustive of how that world might be experienced, for example in the uneven distribution of opportunities and exclusions that result from particular social structures.

Similarly, the theories we have about the world are subject to change, but this does not necessitate a change in the world itself. In the natural sciences this is relatively clear, for example gravity existed before people tried to theorise the attraction between objects and remained unchanged as these theories altered. The mechanism of natural selection was not dependent on the theories of Darwin. This is of course more complicated when we come to the social world where particular social relations (e.g. between employer and employee) or social structures (patterns of social relations, e.g. structural racism) did not pre-exist humanity and where our understanding of them could potentially lead to change. Nonetheless, the social world is relatively stable and enduring and can be considered intransitive in relation to the more transitive nature of our knowledge about it.

Importantly for critical realists, this distinction further emphasises that we do not have direct, immediate or total access to the natural or the social world, our observations are not the same as the world itself (hence the transitive nature of our knowledge and the need for theories about the world). For critical realists, there is an important difference between the actual events and our empirical understanding of these events. Further, there are underlying generative mechanisms that,

in critical realist terminology, are considered as the real. This produces an understanding of the *real*, which includes underlying mechanisms that cause the *actual*, which we observe as the *empirical*. Separating out the real, the actual and the empirical has important methodological implications because it suggests important limitations for our empirical data and our attempts to gain knowledge about social relations and social structures.

At the level of the empirical we may observe particular things about the social world. For example, through case studies of the spirits industry and plant closures we may find headcount reductions, work intensification and financialised controls (see Thompson, 2013). The processes that produce these empirical observations at the level of the actual are likely to be complicated. For example, we might find processes involving broken bargains, unsustainable high performance work systems and particular types of corporate behaviour that we can identify as contributing to what we observed at the level of the empirical. Underlying these actual processes are the causal structures and underlying mechanisms of the real. To conclude our example, we might identify the causal structures of financialisation and capital markets. This can be explored in terms of particular entities (institutional investors, new investment funds) and mechanisms (valuation models, short time horizons). This allows us to develop a much richer understanding of the social world and the key generative mechanisms that shape it.

As Archer (2020: 140) sets out: the real 'exists and can be known only by its causal influence rather than by direct observation'. Since the world does not correspond directly to our observations, we cannot rely simply on deductive reasoning. Instead, critical realism tends to adopt a retroductive approach in which the researcher moves 'beyond what is empirically observable by asking questions about and developing concepts that are fundamental to the phenomena under study' (Meyer & Lunnay, 2013). Retroduction poses the question, 'what must the world be like in order to produce this empirical finding?' On the basis of hypotheses inferred from observation, further data can then be gathered to support or refute possible explanations. Through retroduction we can seek to understand social structures and their causal properties, to hypothesise underlying generative mechanisms. Again, the development of our understanding of gravity provides a useful example of this process of theorising and data gathering, of an iterative process of moving between our theories about the world and empirical data. Similarly, we can hypothesise the existence of

natural selection as a causal mechanism and seek to identify evidence that supports or refutes this theory.

Importantly for the social sciences, and for the theories we develop and seek to evidence, social structures and mechanisms have powers, even if they are not exercised or if they are exercised but not actualised. Absences also have effects. Here Collier (2005) provides the example of the absence of a working-class party in U.S. politics, where this absence has significant effects on the country. It may also be the case that an absence of an enterprise policy intervention has important effects too. Critical realist researchers are not always looking for 'the cause'. Many events are co-determined, overdetermined or counter-acted and involve multiple generative mechanisms. Critical realist research looks for the relative contributions of each mechanism. This also highlights the importance of understanding context (which we discuss in further detail in the next section), since it is these contextual factors that will be important for understanding how and why causal powers are actualised (or not).

While emphasis is rightly placed on the importance of context for understanding entrepreneurs and their environment (context-dependent) (Welter, 2011), a critical realist approach also emphasises that engaging with an environment is dependent on human actions (activity-dependence, necessitating the continuous actions of people; Archer, 2020) and 'concept dependent' (Sayer, 2000: 18). Beliefs and opinions, roles and personal identities, material arrangements and sometimes objects have symbolic functions that impart meaning. In other words, how people understand and interpret their environment influences their actions within it and so these 'concepts' of how the world is have a bearing on the outcomes experienced and how these are interpreted. As Sayer (2000) sets out, 'Consequently, corresponding to the distinction between the transitive and the intransitive, thought objects and real objects, we need a distinction between discourses and their effects' (p.45). In our own research, we can see this with enterprise policy where the understanding of policymakers and other stakeholders can have important effects, including giving rise to problems in relation to the powerful discourses that surround entrepreneurship. Conceptualisations of enterprise and entrepreneurship, for instance in terms of their embodiment (Ainsworth & Hardy, 2008), the assumed ambitions of business owners (Scase & Goffee, 1987) and the wider role of small enterprises in the economy (Rainnie, 1985) can lead to unhelpful and exclusionary interventions.

Owing to the transitive nature of our knowledge and the possibility of competing knowledge claims, critical realism accepts a form of relativism in its epistemology. However, importantly, this does not lead to 'judgemental relativism' (Sayer, 2000), that is, critical realism still holds that we can make judgements between competing theories or, in relation to our research, alternative approaches to an enterprise policy intervention. This may not be definitive (and our theories about the world may change tomorrow), but we can determine which is the best and most useful of the options available today (the chapter will discuss the evaluation of enterprise policies and the evidence we might use to make such judgements below). It is because social relations and social structures are concept dependent and can change that critique is important (e.g. in challenging structural racism). As Sayer (1984: 41) argues '*in order to understand and explain social phenomena, we cannot avoid evaluating and criticising societies' own self-understanding*'. We can see this, for example, in the powerful effects of entrepreneurship discourse. Entrepreneurship discourse has been argued to be 'discriminatory, gender-biased, ethnocentrically determined and ideologically controlled' (Ogbor, 2000: 605; Ainsworth & Hardy, 2008) with damaging effects in terms of how it informs the development and delivery of enterprise policy interventions, not to mention the interests of those affected by the policies. It is therefore important to challenge the discourse and the pernicious effects of such discourse.

Open systems

A second core idea of critical realism that we have found to be powerful is thinking in terms of open and closed systems. Bhaskar (1975: 64) argues that empiricism follows an implicit conception of closed systems, where there is a constant conjunction of events and one event is invariably followed by another. However, such closed systems tend not to occur naturally (though for the natural sciences they may be created in a lab experiment; as Pawson, 2013: 4, puts it 'Experiments are made by designing rather than observing a closed system'). The natural world is an open system where there is no closure, boundaries are permeable, leading to the influence of different causal mechanisms and other contextual factors that may enable or constrain causal mechanisms and therefore where a constant conjunction is rare. The unpredictability created by open systems will be familiar to anyone relying on a weather forecast. There are clearly causal mechanisms at play, but this does not guarantee any prediction of what the weather will be like and, as the predicted weather is further away in time, the complexity becomes greater and the

difficulty in predicting follows. The theory of natural selection provides explanatory power but does not allow us to predict long-term evolutionary changes.

The social world is also an open system, which means that the same causal mechanism can produce different results depending upon the context and where there are multiple mechanisms potentially in operation. Events are therefore often 'overdetermined', where there are multiple causes operating in a complex, open system. This is why critical realism considers causal properties as tendencies rather than as laws determining that one event will always follow another ('Tendencies may be regarded as powers or liabilities of a thing which may be exercised without being manifest in any particular outcome', Bhaskar, 1975: 14). Methodologically, this raises the familiar question of the degree to which 'closed system' experiments can be conducted in the social sciences. To what degree can they be approximated through the use of control variables and statistical probabilities? This is relevant for the study of entrepreneurs who operate in highly complex, open systems, influenced by multiple social structures and embedded within different social relations and policies seeking to shape outcomes. Emphasis is placed on the importance of attending to context and how it creates challenges for those seeking to 'control' such systems for (quasi) experimental studies.

When we consider the regularities that we would expect to identify in such experiments and to correspond to our theories of the world, the problem becomes more apparent, as does its significance for considerations of enterprise policy. Bhaskar began his postgraduate studies interested in the relevance of economic theory for so-called underdeveloped economies. He reports discovering that 'even today you can't pose the question of the relevance or irrelevance of economic theory to the world' (Bhaskar, in Bhaskar & Callinicos, 2003: 97). The challenge of making predictions in Economics is well known (Lawson, 2019) and Bhaskar (1979: 21) argues that the mistake of an empiricist positivism is in the reduction of causal laws to empirical regularities. This led Bhaskar to focus on philosophy. It also led him to conclude that, due to open systems, the 'criteria for the rational appraisal and development of theories in the social sciences, which are denied (in principle) decisive test situations, cannot be predictive and so must be exclusively explanatory' (*ibid.*).

Coad, Frankish, Roberts and Storey (2013) studied a database of customer records at Barclays Bank, accessing sales data for over 6000 new enterprises, allowing them to examine small firm growth trajectories over a six year period. Such a study produces hugely valuable data and generates new insights. To explain their findings, Coad *et al*., (p.618) use the analogy of a ring of gamblers gathered around a gambling table, each with a stock of resources (but with relatively little or no control over the outcomes of the game). They found that 'we need to understand that growth is largely random, whether we are trying to find the determinants of annual growth in any given year, or regularities in the longer-term growth path stretching over a number of years' (p.625). From our critical realist perspective, such randomness is exactly what we would expect from a large group of new firms operating in an open system where regularities are unlikely and there are multiple generative mechanisms. Nonetheless, this does not mean that we cannot identify key mechanisms or important contextual factors. For example, Coad *et al*. (p.626), identify the importance of resources for entrepreneurs: the 'more resources they have, the more likely it is that their business will survive, stay in the game, and so have a chance of a future win'.

Following this logic, as social scientists we should not start by looking for patterns confirming predictive laws in the social world but for explanations, identifying key generative mechanisms and the contextual factors that enable or constrain them. Further, we should not expect these underlying causal mechanisms to create regularised, predictable empirical patterns of events. As Bhaskar (1979: 10) explains, 'the ontological distinction between causal laws and patterns of events allows us to sustain the universality of the former in the face of the non-invariance of the latter.' Of course, the consideration of generative mechanisms as real means that there is still a need to find empirical evidence in support of our claims. For example, for Danermark *et al*. (2002), this can involve using structural analysis to identify the key social relations and social structures (arguably an approach that is relatively underexplored in entrepreneurship studies). Further, it is not enough to identify a mechanism, we also need to understand the enabling, stimulating and releasing conditions of a tendency (Pinkstone, 2007). In our research, we are interested in understanding how something occurs, what causes it to happen (or not). We follow Sayer's (1999: 42) claim that 'The question is not only what works, but what it is about the world which makes it work.'

As Pawson and Tilley (1997: 218) explain in the case of those who evaluate policies (and which is important to understand for all elements of the policy process): '*programs are implemented in a changing and permeable social world, and that program effectiveness may thus be subverted or enhanced through the unanticipated intrusion of new contexts and new causal powers*'. Understanding an enterprise policy intervention has to happen in relation to an open system and where there will not be a straightforward relationship between this mechanism and an intended outcome. Instead, we should understand the conditions under which tendencies operate and outcomes occur.

From our research on enterprise policy, we observe that an initial problem is often a lack of clearly specified outcomes (exactly what it is the intervention seeks to achieve) or a theory of how it will be achieved (the generative mechanism). Even where there are clear objectives, identifying patterns in the targeted population (e.g. a slight increase in venture creation) is therefore not in itself enough. It is important to have a theory of how the intervention has an effect (what are the key mechanisms at work) and then on this basis to examine how this was actualised and what may have inhibited it. That is, there will not be a constant conjunction between events (those who engage with the policy and the outcome they achieve), so it is important to understand how the identified mechanism is being enabled or constrained. For example, a programme to stimulate new venture creation but where participants variously struggle to access key resources to build a viable business. This returns us to consideration of what works for whom and when. In turn, this places an emphasis on context and effective policy evaluation, which form the focus for the next section of the chapter.

Context-mechanism-output: Realist evaluation

There are widely recognised problems with evaluation and understanding what works for enterprise policy. For example, a recent National Audit Office (2020) report on business support concluded that, when designing schemes, alternatives were not considered, policymakers tend not to use data collected to improve interventions and, fundamentally, that most schemes lack rigorous evaluation. We suggest that, in UK enterprise policy, there is insufficient understanding of what works, for whom and when. This can be partially addressed through effective policy evaluation.

The dominant approach to enterprise policy evaluation is that developed by David Storey and colleagues and referred to as the 'six steps to heaven'. Within this framework, and more generally, the 'gold standard' of evaluation is considered to be randomised control trials (RCT). Familiar from medical trials, such an approach randomly assigns people (e.g. entrepreneurs) to either a treatment or a control group. Here, the treatment will relate to an enterprise policy intervention. The two groups can then be compared and the effects of the intervention ascertained. A good example of a recent RCT can be found in the evaluation of the Evolve Digital programme conducted by the Enterprise Research Centre (ERC, 2022). This programme targeted small family firms and aimed to increase their digital adoption through the provision of online, peer group learning. After gathering baseline data, potential participants were randomly assigned to either a treatment or control group (ensuring a degree of similarity between the two groups, although with some acknowledged differences). The evaluation found impacts in relation to the objectives for the treatment group and concluded that the evaluation results 'suggest the potential value of short online training courses to support digital adoption in smaller firms, including family firms, which are usually difficult to access' (p.9). However, those charged with implementing an RCT can face significant challenges (e.g. identification of 'control' groups, such as those who have registered for a programme but do not receive the benefits) and the approach has not been widely adopted in relation to enterprise policy.

There is clear value for policymakers in such evaluations and the differences identified and attributed to participation in a given programme. However, a critical realist perspective builds on an understanding of the intransitive-transitive distinction between the social world and our knowledge of it and between open and closed systems. It raises important limitations for randomised control trials and offers potential alternative or additional ways of evaluating programmes. Pawson and Tilley (1997: 25) provide a starting point by asking the reader to 'suppose everything has gone well and the experimental group have clearly outperformed the controls. Whilst by the lights of experimental logic we can claim the programme a success, we actually learn nothing about why it works' (p.25). In the case of Evolve Digital, the programme was developed from earlier learning and provided insights into the potential mechanisms by which the programme improved confidence and thereby digital adoption. However, this is not always the case and, in their own right, RCTs are better at identifying patterns and information for value for

money assessments than they are at generating explanations. They provide a success rate for a programme but do not, on their own, explain how it worked (or did not).

Ray Pawson, whose work we draw on extensively in this section (although he would not define himself as a *critical* realist), has provided a helpful way of thinking about what a realist, impactful approach to evaluation can look like by focusing on context, mechanisms and outcomes (CMO). We draw on this approach in terms of a focus on explanation and on understanding exactly what it is that works (e.g. that would lead a business owner to adopt a digital solution to a problem facing their business), for whom (e.g. for some business leaders but not for others and investigating these differences) and when (e.g. the contextual factors that might impact the mechanism leading to digital adoption). In this particular example, we would begin with a theory of causal explanation relating to the underlying mechanism ('constituted by people's reasoning and the resources they are able to summon in a particular context') where our evaluative research provides new insights into how to achieve a particular outcome (digital adoption) in terms of the key mechanism(s) and the relevant contextual factors ('which involves making inter- and intra-program comparisons in order to see which context-mechanism-outcome configurations are efficacious') (Pawson & Tilley, 1997: 220). What is important when considering context is to better understand the circumstances in which a theory (generative mechanism) does or does not hold. For example, for Pawson and Tilley (1997: 43), a way in which we might build on the strong example of an RCT provided by the ERC above could be to 'hypothesize and test within-program variation in the success rates of different subgroups of subjects'.

In terms of research design, Sayer (1992) makes a helpful distinction between intensive and extensive research, which we believe offers a valuable contrast to the standard distinction between quantitative and qualitative methods that is often used when teaching research methods. Intensive research typically considers causal processes, for instance this might take the form of realist organisational case studies (Vincent & Wapshott, 2014) concerned with exploring the powers possessed by particular organisations, the influences acting upon them and, more fundamentally, their engagements with the environment they seek to influence. Extensive research tends to be concerned with large scale studies, for example using a survey to study attitudes to entrepreneurship among a cohort of students and understanding how attitudes vary by certain characteristics.

There is another important point here in considering the use of mixed methods and how we might make use of both extensive and intensive research approaches, a cumulative way in which we can develop greater understanding. In terms of cumulative work across evaluations, Pawson and Tilley (1997: 120) comment that 'What is transferable between cases are not lumps of data but sets of ideas […] which "abstracts" from a program a set of essential conditions which makes sense of one case after another.' We might think of this in terms of applying explanations from one context in an effort to make sense of another, while being prepared to revise those explanations in light of new learning or, as Sayer (2000: 23) puts it, through 'repeated movement between concrete and abstract, and between particular empirical cases and general theory.'

In developing research designs for studying enterprise policy interventions, it is also important to note Pawson and Tilley's (1997) discussion about the importance of understanding the choice to participate in a given programme. Framing choice as 'the very condition of social and individual change' Pawson and Tilley (1997: 36) argue that 'it is not programs which work, as such, but people co-operating and choosing to make them work. In the language of generative causation, we would say the programs work *through* their subjects' liabilities.' Getting to grips with programmes, in terms of our own understanding and how we evaluate them, requires researchers to think critically about how participants of a given programme came to be there, their motivations and to what ends they are participating. In our experience, programmes such as Help to Grow: Management feature cohorts of business leaders who enter the course with different aspirations and needs, not to mention different backgrounds and experiences. In delivering this programme, we have observed how these differences can influence how participants engage with the course and the types of outcomes achieved. In light of this perspective, a detailed consideration of the mechanisms that generate particular outcomes and the importance of context on these mechanisms (including, for example, the choices of individual participants) is vital if we are to further our understanding of enterprise policy and ensure greater impact from policy interventions.

Conclusion

In this chapter we have sought to demonstrate the methodological implications of critical realism for entrepreneurship studies, that develop and extend beyond the excellent work conducted to-date. Reflecting on our experiences as entrepreneurship researchers engaged with critical realism,

we argue that it offers a different way of doing research that remains underutilised in entrepreneurship studies. Through the further development of critical realism, as applied to entrepreneurship studies, there is potential to develop new insights and to create significant impacts, for example through the development of effective enterprise policy and business support interventions.

The argument we have set out is therefore less about the specific methods utilised and more about how they are deployed to generate new and potentially powerful insights into social phenomena. In doing so, we engage with debates on the importance of research philosophies and their methodological implications for advancing scholarship in entrepreneurship studies. This reflects the necessity for explicit reflection on ontology and epistemology in social science research. In particular, we demonstrate that there remains significant scope in entrepreneurship studies to explore and to utilise the full methodological potential of a critical realist research philosophy.

It is this potential in a critical realist approach that has made it an important part of our own research agenda (alongside an historical institutionalist approach that we have adopted to understand institutional change over time). We find that critical realism deepens our consideration of social relations and social structure and, once we had got to grips with what can initially be a challenging set of ideas, a solid foundation from which to engage in social research. Beyond our own research, we believe that the early signs of the potential of this approach can be found in exemplars in the entrepreneurship literature such as Kitching and Rouse (2017) and Ram *et al*., (2015). There remains considerable potential to develop beyond these exemplars, for example in further interdisciplinary research on entrepreneurship.

Considering our own research interest in enterprise policy, we can build on the methodological contributions of this chapter to identify several implications for enterprise policy development, implementation and evaluation. Specifically, we suggest that realist case studies offer one means by which existing research on enterprise policy development could be extended. Examining the organisations shaping and delivering enterprise policy, for example, can reveal the how their perspective on what constitutes effective intervention influences the environment for different groups of entrepreneurs. Furthermore, recontextualising and deepening studies of policy implementation offers the potential to explore "'what works for whom, in what circumstances, in

what respects, and how?'" (Pawson *et al*., 2004: v). Finally, critical realist evaluation offers an efficient, practical way of identifying how particular policies are effective, with valuable insights into the potential deadweight effects and additionality. In this way, a critical realist approach has the potential to inform impactful future enterprise policies. We suggest that a critical realist approach has significant potential the remains underutilised in the study and practice of enterprise policy and in entrepreneurship studies more generally.

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