

DOING REALIST RESEARCH

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Edited by

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INTRODUCTION

*Doing realist evaluation,
synthesis and research*

Nick Emmel, Joanne Greenhalgh,
Ana Manzano, Mark Monaghan
and Sonia Dalkin

INTRODUCTION

In 'A history of evaluation in 28½ pages', a chapter in *Realistic Evaluation* (1997: 16), Ray Pawson and Nick Tilley describe the distinguished methodologist of evaluation and qualitative research M.Q. Patton as the 'Lewis Carroll of evaluators' who 'uses every analogy, tale and metaphor [...] to promote a more skilful approach to evaluation'. This was not intended as a slur but can only be interpreted as a compliment. For a little later they point out that Patton is equipping the evaluator – and we would add researcher and synthesiser – with the insights and skills they will need to deal with 'different situations, different purposes, different people, and different languages' (Patton, 1982: 49 cited in Pawson and Tilley, 1997: 16). Ray Pawson tells the story of how Patton responded to the comments in their book. At the British Evaluation Society Conference Patton announced he was establishing a prize to be awarded for 'the overuse of metaphors in methodological writing'. The first winners, deservedly, Ray Pawson and Nick Tilley, with a special citation (he might have added) for over-burdening the reader with cricketing metaphors, unintelligible to all but a select few from a handful of countries. And here is the problem every methodologist struggles with. In seeking to bridge the murky waters between a philosophy of the world and methods to investigate it, we have little choice but to fall back on an armoury of metaphor and analogy, hoping they provide a compelling and vivid account of the reasoning that guides investigation of the social world.

Inevitably these allegorical accounts encourage ambiguity, contention and uncertainty. Our job in *Doing Realist Research* is to bear down on some of the metaphors that inflect through the debates about how to understand and do realist research. The purpose of this book is to identify and explain key lessons that may be transferred across the many and varied settings in which social research, evaluation and synthesis are conducted. Drawing as much on Patton's injunction to recognise diversity of problem, purpose and audience as the body of realist evaluation scholarship that has developed since the publication of *Realistic Evaluation*, this book is about the thoughtful and critical application of realist methodologies, whether you are 'accumulating a mass of notes and a liberal coating of grime' in the library or getting 'the seats of your pants dirty in real research', as Robert E. Park (quoted in Hammersley, 1989: 76) suggested we must do. Most likely, as all the contributors to this book suggest, you will be researching back and forth between library and field-site, acknowledging the complexities of the social world and the methods to investigate it. Our purpose is to provide practical, worked-through examples of the ways in which researchers have brought theories into relation with evidence in realist evaluation, synthesis and research.

IDEAS AND EVIDENCE

For realists practical is not synonymous with empirical. Lying in a dusty box-file on an even dustier shelf in the perennially dark stack room of the Brotherton Library at the

University of Leeds is a yellowing manual-typed pamphlet, Occasional Papers in Sociology No. 14: *Monstrous Thoughts: Weaknesses in the Strong Programme of the Sociology of Science*, by Ray Pawson and Nick Tilley, published in 1982. This paper draws a distinction between a rational (read realist, although they don't use the term) scientific methodology and the two poles of the strong programme of social science. At one pole is an interpretive approach, 'all personal influence and no method', which denies the impact of ideas on the procedural rules of science. At the other is a structural version, 'all institution and no method', which casts scientists as passively responding to external resources. They chart a course between these poles to recognise that science is the synthesis of interpretation and structure. 'Social structures', they note, drawing on the work of Antony Giddens, are 'both constituted by human agency and yet, at the same time, are the very medium of this constitution. Substitute "scientific method" for "social structures" and "scientists' actions" for "human agency" in the quotation and we have the beginnings of a more complete account of science as a social activity' (Pawson and Tilley, 1982: 46–7). They develop Imre Lakatos' account of a zigzag route between proof and refutation in mathematical discovery (Lakatos, 1976) to inform an account of the way science progresses; ideas (or lemmas) are brought into relation with empirical accounts to refine these ideas in the practical progress of science.

But science is a messy business, as the contributors to this volume repeatedly observe in one way or another. Pawson and Tilley (1982) depart from Lakatos' account, whose methodology they consider too prescriptive and tidy, to emphasise that scientific change and development, like every other belief and activity, is generated within and can never be divorced from social processes.

DISPUTATION AND REALISM

Of course, science itself is a social process. Adopting Karl Popper's stance that knowledge is facilitated through criticism, Donald T. Campbell's (1988) 'disputatious community of scholars' provides a useful metaphor through which to understand the way in which realists characterise the process of science. A group whose intellectual debates help research, evaluation, synthesis and methodology to flourish through listening to each other's arguments and counter-arguments. An open system of criticism and support that brings multiple perspectives and multiple methods to bear in the crucible of substantive research, evaluation and its synthesis. A continual process of development and redevelopment of interpretation, disputation of analysis and contestation of causal explanation seeking to most adequately and plausibly account for the object of our enquiry.

For physical scientists there may be an end to this disputation. Although new empirical evidence does not seem to confirm hypotheses as science is so often characterised to do, but affords new ways of thinking and opens up fresh avenues for empirical enquiry. The determination of Higgs boson¹ is neither an end to enquiry about the nature of subatomic matter

nor the completion of the Standard Model of particle physics, for instance, but a step along a road that refines theory and leads to the design of previously unimagined empirical enquiry.

REALIST PRINCIPLES

The concerns for many of the readers of this edited book will not be the enduring matter of physical science's enquiry but the objects of social and human science and their application in the social or even the real world. In addition to contending with the disputations agency of scientists, the social and human scientist appreciates the emergent, transitive and only ever relatively enduring nature of the social world. A realist evaluator investigating an intervention knows it is never stationary; practitioners and participants are using resources afforded by the intervention to change (or not) their little bit of the world. Realist researchers understand that the people, groups, organisations or whosoever they are investigating may well be acting on structures that existed before them and in which they played no part in shaping, but which they are, with varying degrees of success, trying to change or keep the same.

This dynamism that results from human action is why traditional experimental methods, while not quite the anathema they have sometimes been characterised as, are certainly recognised to have significant limitations by realist evaluators and researchers. These methods ignore the emergent nature of the social world. People's agency, the factors that could make a difference, are ignored or, at best, converted from rich relational accounts into variables, things to be empirically recorded.

As all the contributors show in this volume, realists are rather less interested in methods and very much more interested in how insights, which sometimes arise from investigations, add to a pool of theory. That an RCT or a Grounded Theory study provide compelling insight into some particular process is considered important because it helps the evaluator, synthesiser or researcher to judge a theory. The same can be said for any method of insight. All the contributors in this edited collection show how wedded to multiple methods realist researchers are in their pursuit of refined theory. This once again disrupts traditional ways of thinking about research. We are often presented with a hierarchy of evidence as a given. This places experimental methods at its zenith and relegates lay-accounts to the dark reaches at its base. A realist methodology tips this hierarchy on its side, recognising that the key is not some arbitrary measure of methodological rigour but the utility of insight in crafting theory. As Pawson, Owen and Wong (2010b) show in a short paper which should be essential reading for any realist methodologist, the insights from experienced policy-makers and practitioners discussing a problem on a morning radio news programme can be as important as a study that cost many millions. Realists dig for nuggets of evidence even in 'bad' research to elaborate theories (Pawson, 2006a). This can trouble the political economy of science, of course, which is quite fun to do, but at a methodological level we are reminded that a realist methodology is, to use a phrase Ray Pawson (2003) adopted, 'theory incarnate'.

REALISM AND THEORY

What theory is and why bother with it are fundamental questions in a realist philosophy of science. Each of the contributors to this book showcase how theory is crafted in the day-to-day activities of realist studies. They demonstrate what theory is and how it is uncovered, challenged and enhanced through empirical investigation in the library and in the field and also demonstrate the utility of theory.

In this introduction we want to provide a sketch to answer what theory is and why it is ubiquitous in a realist methodology, not least because each of the contributors to this volume assumes the reader will have this understanding. Returning to the earlier observation arising from Ray Pawson and Nick Tilley's investigation of the weaknesses in the strong programme of the sociology of science, science for realists is the synthesis of interpretation and structure. The significant achievement of realist science is to marry epistemological narrative and ontological depth (Bhaskar, 2008). Explanations are a product of both the social character of scientific progress and the role played by models in scientific thought. We have already emphasised how important disputation is to the progress of science. As Karl Popper observes in richly metaphorical language, there is nothing absolute about science: 'It is like a building erected on piles. The piles are driven down from above in the swamp.' But these piles never reach a rock-steady foundation, they are driven down just far enough to hold the structure steady for the moment. And as Popper (2002: 94) goes on to observe, '[w]e simply stop when we are satisfied that they are firm enough to carry the structure, at least for the time being.'

So far, so measurable, logical and positivist. There is a further step. Realist science proposes models which are necessary because they seek to explain real social processes. For realists the real exists, but is independent of our knowing it. Realists acknowledge a stratified account of reality, which in practical terms means moving beyond describing what can be measured in the social world to explain the deeper causal powers that shape that which can be observed. Causality is accepted as configurational, contingent and generative of real social processes. Many of these underlying mechanisms, which shape the observable and recordable, are much less amenable to direct description. It is here that a realist methodology parts company with the approaches in science that provide descriptive accounts of 'what is' and 'what works'. Realist science answers explanatory questions as best as it can through constructing models that explain why the empirically recordable looks and behaves in the way it does. Explanations in realist science are the product of bringing ideas into relation with evidence. These theories are the fallible, provisional and testable models of realist science.

CONTINGENCY AND THEORY

To recognise ideas are as important to research (and explaining the social world) as measurements is an established principle in a realist methodology. Ideas – 'concepts, meaning, and intentions' as Joe Maxwell (2012: 18) reminds us – are:

... as real as rocks; they are just not as accessible to direct observation and description as rocks. In this way they are like quarks, black holes, the meteor impact that supposedly killed the dinosaurs, or William Shakespeare: we have no way of directly observing them, and our claims about them are based on a variety of sorts of indirect evidence.

These causal powers are emergent; they will only exert their generative influence in an arrangement with other parts. Causal powers work in a disposition to their context and shape particular regularities, which in turn produce outcomes. Outcomes, regularities within and across the outcomes, and aspects of context are features of the social world that are most amenable to measurement, observation and description. Positivist and constructivist social and human science dutifully record these observations, and sometimes peer as far back as they can empirically along the path from which the outcome came to make claims to what preceded an empirical observation. Such accounts of path dependency have their value of course, but realists are concerned to make claims to underlying factors that support, help, shape and make a difference (or not). These claims form the basis of explanations and they have practical utility. They provide policy-makers, practitioners and people with accounts of why something happened (or why it didn't happen), where and under what circumstances. For evaluators and researchers these theories provide guidance about where to look to next, who to purposefully sample (Emmel, 2013) and the most appropriate method to use to test and refine theory.

REALIST EXPLANATION

In a further step, realists recognise that a methodology that brings ideas into relation with evidence is ideally suited to explore complex systems. They draw on an interpretation of complexity, which is non-linear, locally adaptive, emergent and path-dependent (see Byrne and Callaghan, 2013). The possibilities to exercise human agency are contingent upon factors in particular contexts. Recognising that measurable outcomes may be arrived at by many potential means or regularities shaped through the reasoning and resources of evaluative human agents, is also part of the explanation of complexity in a realist social and human science.

Inevitably realist methodologists fall back on metaphor to describe these complex relational processes in a realist methodology. Perhaps the richest metaphorical device in Ray Pawson and Nick Tilley's seminal book *Realistic Evaluation* is the CMO configuration. All realist explanations should, in some way, include an account of context, mechanisms and outcome.

It is hard, given our training in scientific method, to break away from two particularly dominant narratives. The first is that there is a tool available to address each problem. The second is that data trumps everything else. The idea of the CMO configuration undermines both these parts of classic training.

The CMO, as all the contributors to this edited collection remind us in one way or another, is a heuristic device. Many an hour/day/month can be spent trying to organise data

into these three categories. But anyone who tries soon finds these typologies are not clear cut. They are, as we have emphasised, contingent upon each other, the epitome of complexity. They only work in relationship to each other: split them apart and they no longer offer up an explanation of the social process under investigation.

Ray Pawson described the CMO configuration as an ‘ugly circumlocution’ (Pawson, 2013: 21), which sums up the trouble with the matter. This phrase reminds us of the Circumlocution Office Charles Dickens describes in *Little Dorrit*. Dickens’ account of the Circumlocution Office is a theme he wrote of often, resisting rigid institutional rules, which helps us to understand the CMO metaphor. Do we follow the authority of a rigid method called CMO, or critically and creatively engage with it, recognising the value of this necessary flagrant nuisance and how difficult causal attribution is in supporting our explanation of social processes?

Such a nursery of statesmen had the Department become in virtue of a long career of this nature that several solemn lords had attained the reputation of being quite unearthly prodigies of business, solely from having practised, How not to do it, as the head of the Circumlocution Office. As to the minor priests and acolytes of that temple, the result of all this was that they stood divided into two classes, and, down to the junior messenger, either believed in the Circumlocution Office as a heaven-born institution that had an absolute right to do whatever it liked; or took refuge in total infidelity, and considered it a flagrant nuisance. (Dickens, 1996: 102)

Realists, you will have gathered by now, are of course infidels, the methodology a flagrant nuisance, the CMO pedagogy incarnate. The last thing the contributors to this volume would suggest doing is imposing context, mechanism, outcome and their infinite configurations as tools or tropes to answer all scientific questions.

Indeed, as Bruno Marchal and colleagues and David Byrne show in Chapters 5 and 6, this heuristic needs modification if the CMO configuration is to fill in the realist and complex question, ‘what works for whom, in what circumstances, and why?’. It has a special place in realist explanation, as one of its originators, Ray Pawson, asserts in the concluding chapter, because it contributes to the development of another kind of theory, the theory of the middle range. The idea of middle-range theories, put forward by Robert Merton (1968), developed by Raymond Boudon (1991) and adapted by Raymond Pawson and Nick Tilley (1997), is considered central to a realist methodology. They are bundles of hypotheses that can be tested empirically. They are also abstract enough from particular instances that these theories can be transferred between cases that might have quite different empirical characteristics.

THE CHAPTERS

Cases are an important feature of a realist methodology. And for the reader eager to go straight to the chapters that will directly support their research we provide an overview of

the cases in Table I.1. After Ragin and Becker (1992) the descriptions of the cases in Table I.1 work out of the relationship between ideas and evidence. The key theoretical focus of each chapter is divided from its empirical case studies by a semi-colon. In each chapter some kind of artificial closure has been achieved for practical purposes. For those with a little more time, a description of each of the chapters is elaborated below.

TABLE I.1 The cases by chapter in *Doing Realist Research*

	Chapter title	The cases (after Ragin and Becker, 1992)
1	The middle-range methodology of realist evaluation	The history and evolutionary mechanisms of realistic evaluation; the What Works Centre for Crime Prevention
2	Making up mechanisms in realist research	Theory, evidence and their relations to mechanism; social stratification in the United States and homelessness in the United Kingdom
3	Understanding mechanisms in realist evaluation and research	Applying mechanisms in evaluation and research; youth programmes and public disclosure initiatives identifying under-performance or deviant behaviour
4	Making claims using realist methods	Generalisation through explanation; early intervention and prevention programmes
5	Theory and realist methods	Theories; health systems in resource-constrained settings of low- and middle-income countries including Ghana, Uganda and South Africa
6	Researching complex large-scale nested interventions	Explaining complex social interventions; housing regeneration and renewal programmes
7	Using realist approaches to explain the costs and cost-effectiveness of programmes	Economic evaluation and realist evaluation; shared care
8	Data gathering for realist reviews	Relevant rigours data in realist reviews; looking for needles in the haystack of evidence
9	Scoping and searching to support realist approaches	Evidence of synthesis reviews; from grey literature to peer-reviewed papers
10	Evidence from realist research, its influence and impact	The processes of engaging with policy-makers during realist synthesis; youth mentoring
11	Realist research, guidelines and the politics of evidence	Policy, politics and evidence; the National Institute for Health and Care Excellence (NICE), regulating alcohol consumption and prevention of cardiovascular disease through diet
12	Realist memorabilia	The body of realist literature; youth mentoring; problem-orientated policing

The striking feature of Nick Tilley's contribution to this edited collection in the first chapter is the ways in which the features of realist explanation discussed in this introduction are put to practical purpose. In a personal account of an intellectual journey and friendship, Tilley demonstrates how disputation, intellectual engagement and practical reckoning lie at the

foundation of a realist methodology. Not least, he shows how his recent work in policy and practice, as a partner in the What Works Centre for Crime Prevention, has spawned a new evaluation approach: 'EMMIE' (effect, mechanism, moderator, implementation and economy). He accepts this approach does not hold to a rigid interpretation of realist methodology, but responds pragmatically to the needs of research funders, policy-makers and practitioners. Nonetheless, the principles of realism underwrite this new method. Its purpose, to draw on different types of evidence used to support or refute theories of the middle range. Tilley shows how through bringing diverse evidence to theory, better understanding of the causal liabilities that produce real outcomes to inform policy and practice can follow.

In Chapter 2 Malcolm Williams focuses on one of the key components of the relationship between evidence and theory, the mechanism. He shows how mechanistic thinking aims to close the gap between the real intransitive objects of nature and the transitive objects of our explanation in social science. This account emphasises the importance of cumulative theorising to realist explanation and shows why we must make up mechanisms, not as works of fiction but from the phenomena we can observe and measure. Drawing on empirical evidence from investigations of social stratification in the US and homelessness in the UK and methodological writing from realism and from interpretive causal analysis, Williams demonstrates how our explanation of complex social phenomena through a mechanism will always be incomplete, how our theories and methods must be eclectic and forever testable, and, because they are testable, our models will be forever falsifiable.

In Chapter 3, Gill Westhorp extends the definitions of mechanism. Pawson and Tilley (1997) described mechanisms as reasoning and resources in social programmes. In one of the few discussions of social mechanisms in Roy Bhaskar's work, mechanisms are similarly described:

Thus a person may possess a reason for acting in a certain way and not act in that way under appropriate circumstances if, at the time, he possesses in addition a set of overriding or more compelling reasons [which reads better as 'resources'] for not acting in that way. (Bhaskar, 2008: 234)

Extending these definitions, Westhorp argues that other constructs of mechanisms might be equally useful to understand how some types and aspects of policies and programmes work in different contexts. Mechanisms, Westhorp suggests, may work at different levels of stratification – some seen and empirically measurable, some deep below the surface of that which can be measured – and at different times, for instance the effects of a mechanism that fired in the past may be felt in a present evaluation. Mechanisms are always nested in and contingent upon a set of relationships as well, a point David Byrne picks up on in Chapter 6. These methodological observations, derived from a realist philosophy, lead Westhorp to propose a new and elaborated typology of mechanisms, along with a practical account of what these might look like at different scales and in different circumstances.

Two key messages contributors to this collection keep returning to are, first, that realist methodologies must be rigorous and systematic but never mechanical and, second, that they require a flexible and creative mind-set. In Chapter 4 Brad Astbury examines the explanatory potential of mechanisms, their contribution to developing middle-range theory-building and modest forms of theoretical generalisability. Developing these methodological lessons from an evaluation of an early intervention and prevention programme, Astbury emphasises the limits of logic models in identifying causal mechanisms. In developing theories of the middle range through empirical engagements in evaluation, he emphasises the importance of learning cumulatively, drawing on existing theoretical resources, and the value of casing – bringing ideas into relation with evidence. Focusing attention on aspects of causal explanation will help to answer the ‘will it work elsewhere’ question.

In Chapter 5, Bruno Marchal, Guy Kegels and Sara Van Belle examine the ways in which different kinds of theory are used in realist research. They explore the differences, commonalities and the value of theory. These include folk theories and programme theories, which in some way articulate what is happening in a particular context. These allow for the elaboration of CMO configurations, to which they consider it useful to add explicit details about intervention and actors. Marchal and colleagues also consider grander social theories, which are often rather abstract from a particular setting, but which, along with the other types of theory they discuss, contribute to the development and testing of middle-range theories. These, as each of the chapters discusses, are central to realist explanation. Marchal and colleagues elaborate the ways in which these theories are developed and relate to each other, providing a wealth of practical examples for conducting research, working in multi-disciplinary teams and adopting methods, including Charles Ragin’s Qualitative Comparative Analysis, to equip researchers with a rich portfolio of readily useable and topical theoretical framings to capture unpredictable and emergent phenomena.

Marchal and colleagues’ concern with theory development is tested in quite specific and well-defined interventions. In Chapter 6 David Byrne considers a quite different kind of evaluative environment: multi-layered and multi-faceted programmes where the boundaries of systems are highly permeable and interpretable and causal chains run in all directions. His case is the history of housing regeneration and renewal programmes conducted through an extended period of de-industrialisation. Byrne argues that the evaluation of large complex systems should not abandon the language of mechanisms operating in context, but they do need to specify outcomes in terms of a system state that is the result of the interaction of many mechanisms and contexts. The pedagogy of the CMO configuration leads to its rewriting.

The pedagogic value of the CMO leads Rob Anderson, Rebecca Hardwick, Mark Pearson and Richard Byng into a relatively new area for a realist methodology, that of realist economic cost-benefit analysis. In Chapter 7 they juxtapose the black-box approaches of traditional economic evaluation, measuring what goes into a programme and what comes out with no concern for what happens between these measures, with a realist methodology. Anderson and colleagues demonstrate how investigation of resources, a key part of a

realist account of mechanisms, can aid researchers to theorise mechanisms, outcomes and contexts. They show, in particular, how evidence derived from conventional economic evaluations may generate data to refine programme theories and lead to causal explanations, which address the realist questions about what works for whom in what circumstances and why.

Refining theory is Geoff Wong's concern in Chapter 8, where he provides practical guidance for any researcher setting out to undertake a realist review and who must address the issues of both their sources of data and their quality. As Wong explains, realist reviews are much more about explaining phenomena than calculating the size of their effects. This chapter encourages researchers to be imaginative and inclusive in searching for evidence to develop plausible yet fallible programme theories. Wong uses practical examples from published work to show how evidence can be applied in real-world reviews. The chapter offers up suggested solutions in the development of a rigorous process for realist review. These, in common with all the contributions in this edited collection, emphasise the relationship between evidence, theory and useful explanation in a realist methodology.

Andrew Booth, Judy Wright and Simon Briscoe elaborate ideas about realist review further in Chapter 9. Contrasting realist synthesis reviews with systematic reviews, these authors explain the strategies realist researchers might adopt and how these are continually informed by a realist methodology. Once again the methods are located around the keystone of realism, the exposure, elaboration and exposition of theory. They highlight the challenges faced in interpreting the quality standards, protocols and search methods, embodied in the systematic review methodology, in a way that is sensitive to the requirements of the realist review. Booth and colleagues promote strategies that interweave programme theory articulated by users, practitioners and policy-makers with theory gleaned from literature. They purposefully flatten the hierarchy of evidence to show why social media may be as important as peer-reviewed papers reporting from randomised control trials and systematic reviews. They address the very practical challenges of information retrieval that arise from these methodological observations.

In Chapter 10, Mark Monaghan and Annette Boaz again return to an exploration of the difference between experimental methods that assume a succession from cause to effect, with little concern for what happens between these two observable waypoints, and realism's generative, causal and mechanistic explanations. Their focus is on the ways in which realist methods can inform policy-making processes. Elaborating on the themes Nick Tilley identifies in Chapter 1 of this collection, Monaghan and Boaz chart the kinds of engagement realist researchers seek to establish with policy-makers to broker research production that addresses priorities while also contributing to identifying and refining programme theories. They point to the ways in which a realist methodology seeks to deal with the complexity in different contexts, through the cumulation of evidence about what works for whom in what circumstances and why, rather than just what works. They also show how the findings from realist research – models, diagrams and stories that elaborate theories – percolate into

policy processes, stimulating often different thinking about problems rather than offering an overarching prescription to answer those problems.

In Chapter 11 Mike Kelly contrasts evidence-based medicine, which, like the economic evaluation methods of cost-benefit analysis Anderson and colleagues discuss in Chapter 7, valorises the accuracy of the relationship between intervention and outcome of traditional methods with realism's concern to understand the nature of linkages and pathways of action between intervention and outcome. Drawing on the experiences of developing guidelines for public health interventions at the National Institute for Health and Care Excellence (NICE) in the UK, Kelly shows how the mechanistic approach to explanation inherent in realist approaches extends accounts to permit forensic detection about why things are the way they are. Investigating two politically contentious areas of public health – regulating alcohol consumption and the prevention of cardiovascular disease through diet – Kelly demonstrates how real causes and explanation are possible using the best available evidence, not speculation and supposition, and how this interpretation leads to proposals for cost-effective strategies. He also shows how these proposals bump up against political considerations that shape the prosaic problems of implementation. As Kelly observes, the great strengths of evidence-based medicine are its transparency, rigour, forensic approach to evidence and the fact it is based in peer-reviewed science. The great strengths of the realist approach are its acknowledgement of complexity, its refusal to be drawn into simple linear models and its ability to reframe questions in ways that are often much more illuminating than simple hypothesis testing. Both approaches must recognise the contingent nature of any evidence-based statement, however.

The metaphorical bookends of this edited collection are Nick Tilley and Ray Pawson. Nick Tilley's contribution in Chapter 1 focuses attention on the practical purpose of realist explanation. It is a theme Ray Pawson returns to in the final chapter. He asks three taxing questions, for which he of course provides answers. First, he wonders if realism will last. His answer: it will because it is not limited to realist evaluation and realist synthesis – these are part of a much older, wider and emergent interdisciplinary scholarly enterprise. Pawson's second question revisits the CMO, which we have noted is a concern of all the contributors to this collection. It is teased apart and joined back together one last time to show how the CMO configuration is the fundamental building block of *any* causal explanation. And finally Pawson ponders on the use of realist evaluation and synthesis. He points to the modest expectations of realist researchers, the ways in which explanation cumulates in realist science and how the theories that guide a realist methodology become real when they are creatively tested and are able to explain change in the social and human world. This is partial knowledge, certainly, but it represents real and practical progress.

There is a considerable – and we would argue an increasing – appetite for realist methodologies in the social and human sciences, internationally and across disciplines and fields (measured by citations). As all the authors in this edited collection stress, the strength of

realist explanation lies in its ability to address complexity through recognising the contingent relationship between context and causal powers (mechanism) to bring about change (or for things to stay the same). They elaborate the metaphors that make these relations real. Realism stands apart from a science that in its pursuit of measurable precision neglects to illuminate the power of things and explain the how and why of real and complex social explanation.

NOTE

- 1 Higgs boson was predicted in a theory presented by a group of physicists in the 1960s. A scalar particle and field in the Standard Model of particle physics, it was tentatively confirmed by CERN, the European Organisation for Nuclear Research, on 14 March 2013. Writing about its discovery, the theoretical physicist Carlo Rovelli observes: 'Our fantasy is too limited to "imagine" how the world may be made, unless we search for inspiration in the traces we have at our disposal. The traces we have – our clues – are either theories which have been successful, or new experimental data, nothing else' (Rovelli, 2016: 189).