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Geoff Hodgson on Pluralism and Historical Specificity

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Abstract

Geoff Hodgson has made a variety of innovative contributions to thinking about the methodology of economics. Here two particular contributions are considered together: his advocacy of pluralism at different levels and his concern with historical specificity. We first explore his argument for specificity in terms of a pluralist ontology. We then consider his argument for methodological pluralism as contributing to an abductive methodology. We discuss this methodology as a basis for some generalities in theorising and discuss the potential further contribution that can be made by a pluralist ontology.

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Introduction

Geoff Hodgson has made a notable range of contributions to thinking about the methodology of economics. These contributions are consistently innovative, carefully argued and supported by in-depth research. But they tend also to be controversial and thought-provoking, i.e. a good jumping-off point for further thought. Here two particular contributions are considered together: his advocacy of pluralism, as expressed in Hodgson (1997), and his concern with historical specificity, as expressed in Hodgson (2001). We set aside discussion of pluralist methodologies as such, focusing on arguments for pluralism at other levels: ontological pluralism (plurality in nature), methodological pluralism (the tolerance and indeed fostering of a variety of methodological approaches, some of which may be pluralist) and theoretical pluralism (fostering a plurality of theories).¹

The argument against promotion of one universal methodological approach is closely associated with Hodgson's argument that history is not homogeneous, precluding universal general theories. The purpose here is to explore further the connections between these two particular arguments. In particular we consider the way in which historical specificity can be discussed in terms of a pluralist ontology and how it can play an important part in methodology pursued within methodological pluralism. Making new connections is a central feature of Hodgson's abductive methodology and the thoughts which are developed below are offered in the spirit of that methodology.

We start with the ontological basis for methodological pluralism, which can be expressed in terms of the subject matter being a plurality, and consider this in terms of Hodgson's (2001) argument for historical specificity in theorising. While a pluralist ontology is implicit in much of the related literature, it is rarely brought to the surface. We then consider the epistemological implications of ontological plurality and the consequent arguments for methodological pluralism. Hodgson advocates fostering pluralism, not just tolerating it, but we explore some of the challenges this poses for practice. Within his analysis of pluralism, Hodgson (1997) explores the method of abduction and the role that metaphor plays. Here we draw connections between that analysis and his analysis of historical specificity, showing that they reinforce each other. In particular we explore the charting of the middle ground between universal theories at one polar extreme and post-modernist spurning of any generalisation at the other by considering historical specificity as a source of generalisation. In the process we address Hodgson's challenging interpretations of Smith and Keynes.

Historical Specificity as Ontological Plurality

Hodgson (2001: 23) builds his case against general theorising on ontological grounds: an absence of uniformity in nature: 'there are different types of socio-economic system, in historical time and geographical space'. Hodgson allows for (and indeed emphasises the necessity for) some generalisation. 'This does not mean that universal features or concepts should be absent from social

¹ See Dow (1997) and Dutt (2014) for classifications of pluralism at its different levels.

science. It means that an adequate theory of complex phenomena is unlikely [to] be composed entirely of such universal features' (Hodgson 2001: 26). He gives the example of Darwin's theory of evolution which alone is insufficient for explanation of particular phenomena, something which Darwin himself acknowledged (Hodgson 1997: 147). The argument is therefore, on the basis of ontological plurality, for theoretical pluralism: the desirability of a variety of theories addressed to particular contexts, but some of which may be general.

Hodgson's critique is therefore aimed at the tendency in economics to put *all* the emphasis on generalisation, with specifics treated as deviations. He explores the possibility that complexity theory might be able to encompass particularity in nature, but demonstrates the logical impossibility of constructing a complete formal system. Any general theory therefore has limited applicability to real contexts, i.e. it cannot be truly general since it requires assumptions which abstract from reality. This argument applies even if the elements of the system do not evolve in non-deterministic ways, but clearly has even greater force within an evolutionary system. The problem is compounded by the fact that the computational challenges of a complex system are faced, not just by the economist, but also by economic agents.

Historical specificity is the primary focus of Hodgson's volume, although its geographical counterpart is acknowledged. His ontology is based on an understanding of social systems as being complex, and evolving over time in complex ways, emphasising path-dependence over time: 'economic reality changes in a way that physical reality does not' (Hodgson 2001: 5). This ontology (often referred to as an open-system ontology) is shared by the wider methodological pluralism literature, which goes further than advocating theoretical pluralism to advocating a plurality of methodological approaches. But the ontology there tends to be even more focused than Hodgson (2001) is on historical rather than geographical specificity.² But a separate case needs to be made for geographical particularity. The issue is not so much the inability to identify causal mechanisms over time as economies evolve but rather the need to understand different social structures and conjunctures at any one time in order to devise useful theories. The issue has been raised mostly in development economics and regional economics. These are areas in which the mainstream approach applies universal theories regardless of context, as in the Washington Consensus. Yet development economics and regional economics as developed by non-mainstream economists are concerned precisely with difference in context and the development needs of peripheral economies. Shin (2005) offers an innovative approach to respecting specificity yet drawing on general patterns (see further Dow and Dow 2005 and Gay 2009).

It is worthwhile to take some time to consider further an open-system ontology in terms of the more general notion of specificity over time and space, i.e. in terms of ontological plurality, not least since in other disciplines both in the natural and the social sciences it is common to focus on ontological plurality more in terms of cross-section diversity than diversity over time.³

² This may reflect the critical realist expression of open systems in contrast to closed systems by reference to time-series econometrics and to the scope or otherwise for prediction (see further Chick and Dow 2005).

³ This was evident from discussions during the Institute for Advanced Studies 'Pluralism in Crisis' Workshop series at the University of Strathclyde over the summer of 2010, where almost all participants from the physical and social sciences discussed pluralism primarily as a characteristic of the subject matter rather than in terms of epistemology or methodology.

The ontology of economics, pluralist or otherwise, has itself changed over time but also differs at any one time across schools of thought. At the origins of modern economics in the eighteenth century, and most notably in the work of Adam Smith, the subject matter was a specific aspect of social systems: production, consumption and exchange. The focus was on economic development, where commercialisation was the latest stage of development, and different societies were at different phases within any stage and manifested the characteristics of each stage differently. While among these different contexts commercialised activity was of particular interest, economic analysis had a wider sweep, including non-commercial production, consumption and exchange. These were analysed in relation to historical and geographical context, with particular attention to the social, political and institutional environment. The economy was thus understood as inseparable from society, government and institutional structures. Given the acknowledged diversity and complexity of social reality, between different economies and different historical periods, the subject matter was understood in pluralistic terms – an ontological plurality.

In the second half of the nineteenth century, there was a shift of interest from economic development to efficient allocation, so that the economy was increasingly understood in terms of the behaviour of individuals and firms and the operation of the price mechanism in markets for factors of production and for goods and services. Economics now was understood as applying exclusively to commercialised production and exchange and economic behaviour was analysed as separable from other aspects of social life. To that extent social life was understood to be bifurcated. But economic behaviour was assumed to be governed by universal axioms of rational optimisation.

But gradually the idea developed of economic behaviour as being integral to all forms of social life, an idea cemented by Robbins (1932: 16) definition of economics in terms of scarcity. To the extent that scarcity is general, economic choice applies to non-commercial as well as commercial activity. The persistence of this definition of economics has fostered a process of ‘economics imperialism’ (Fine and Milonakis 2009) whereby economic theory and methods have been applied within the subject areas of other disciplines, a move given particular impetus by the work of Becker (1976). The subject matter of economics thus became potentially so wide-ranging that economics increasingly became defined by its dominant methodology and its dominant theoretical focus (choice theory). The universal assumptions as to economic behaviour were now given general application in other spheres, implying an ontology whereby there is uniformity in nature. Since mainstream economics seeks to identify law-like behaviour which is general to all contexts (different historical periods and different societies, as well as to contexts not normally thought of as economic), the ontology is therefore monist. This is rarely made explicit.

For all the modern dominance of the discipline by the mainstream, there is a range of ontologies associated with different schools of thought.⁴ Non-mainstream approaches to economics do however have important elements in common. First they follow in the Classical tradition of being realist in the sense of focusing, in differing degrees, on the subject matter of production, consumption and exchange. Second they understand the economy as an open system which

⁴ Lawson (2003) emphasises the common open-system ontology in non-mainstream schools of thought, regarding further differences as differences as to commitment rather than ontology. For a critique, see for example van Staveren (2009).

evolves in a non-deterministic way; the interactions between economic activity and social, political and institutional developments, which are an important element in that openness, encourages a willingness to engage in inter-disciplinary analysis. Unlike mainstream economics, the purpose of such analysis is to draw on other disciplines rather than to colonise them. By denying the feasibility of identifying law-like behaviour, non-mainstream economists are implicitly adopting a pluralist ontology, although it is only rarely put that way. It perhaps comes closest to the surface in development economics, where any non-mainstream approach would take seriously the different contexts of economies at different stages of development. Only postmodernists tend to be explicit about reality being fragmented, but then it is not expressed as ontology since the only reality that is recognised is epistemological (see e.g. Amariglio 1988).

Hodgson would probably not agree with classifying non-mainstream economists as being aware of the implications of ontological plurality, unless perhaps by non-mainstream we mean only those approaches which employ a pluralist ontology and follow it through consistently to their methodology. For example he tasks Post Keynesians with ignoring the significance of historical specificity and Keynes with positing general psychological laws, implying a monist ontology (Hodgson 2001: 22, 31; see further Hodgson 2005). Similarly he charges Smith with pursuing generality, even though this tendency is viewed to be much less strong than later Classical developments, notably with Ricardo; see Hodgson 2001: 30). In the next section we pursue in more detail the question of the kind of generality which is consistent with ontological plurality, in the process addressing Hodgson's interpretations of Smith and Keynes.

Generality and Specificity in Economic Theory

Hodgson does not deny that some generalisation in economic theory is not only acceptable but even desirable. What he argues against is generalisation that follows from the assumption that there is some uniformity in nature. 'Abstraction and simplification are necessary for any theory. General theories, however, build upon features that are taken as common or universal, rather than historically or culturally specific' (Hodgson 2001: 7). Hodgson (2001: 8-9) shows that this universalisation applies equally to empirical evidence, whose identification and classification according to some universal criteria require some prior theoretical notions. Both deductive generalisation and empiricism as distinct methodologies thus presume uniformity in nature (ontological monism).

The generalisations on which mainstream theory is built are widely challenged in non-mainstream economics as abstractions which are fictional rather than simplifications. But Hodgson goes further by arguing that even *simplifications* which abstract from diversity can also be hazardous, limiting the applicability of the resulting theory. General theories alone are unable to offer meaningful explanations if diversity is assumed away, while empirical research on its own is incapable of demonstrating causal relationships. Hodgson's concern over historical specificity is not just with fictional assumptions in particular but with assumptions which presume ontological monism more generally. This charge is laid against some approaches normally thought of as non-mainstream.

But what about generalisations at the ontological and epistemological levels? A generalisation does not necessarily reflect monism. Hodgson would not deny that he himself employs generalisations: a pluralist ontology itself is a generalisation. He criticises postmodernists for the generality of the narrative they propose as an alternative to modernism, and yet he accepts that the ‘rejection of general theories must itself involve generalities. There is no escape’ (Hodgson 2001: 7). So which kind of generalisation is acceptable and which is not?

Let us consider Hodgson’s critique of Smith and Keynes as case studies of generalisations which Hodgson finds unacceptable. He focuses on Smith’s (1776: 17) argument that there is a ‘propensity in human nature to ... truck, barter and exchange one thing for another’ which is ‘common to all men’. First of all, in considering this passage it is important to apply the focus on context-specificity to the interpretation of texts. There was an impetus beyond philosophy for developing a theory of human nature in the eighteenth century which sought out commonalities. The context of Hume and Smith was one in which the commonality of humanity was in doubt. This applied to attitudes to indigenous people in North America as its colonisation proceeded. But it also applied closer to home, in Scotland in the wake of the Jacobite rebellions, with the classification of Highlanders as ‘barbarians’. Indeed it is hard in any period to justify efforts to differentiate between different ‘humanities’.

But there was also an important epistemological context. Smith, along with Hume, was pioneering the development of a theory of human nature as the foundation for their philosophy of science. In particular, Hume (1739-40) aimed to set out an alternative to rationalism on the basis of what we would now call an open-system ontology. He argued that knowledge is built by induction on experience (evidence) but the problem of induction (given the ultimately impenetrable complexity of the subject matter) prevents any conclusion having universal application. Rather any general principles drawn from experience must draw on belief and be treated as provisional. Smith (1795) developed these ideas, arguing that we therefore cannot claim access to true knowledge, but rather build up theoretical systems which can evolve in the light of experience. Theories are accepted or not according to their psychological appeal, given the persuasiveness of rhetoric. Inevitably there may be alternative theories and indeed theoretical systems, none of which can claim to be the most true – only the most persuasive. But their epistemology was presented as a general theory. It was based on extensive reading of accounts of a range of societies and periods, from which they drew out patterns from the diversity of contexts within which, and manners in which, these patterns manifested themselves. These patterns indicated that, in building knowledge, humans draw on their capacities for passion, imagination (and thus sympathy), observation and reason.

Hodgson might have been on stronger ground in charging Smith with undue efforts at generalisation if he had focused instead on the principle of the division of labour, a general economic principle rather than an epistemological principle, although derived from his theory of human nature. Nevertheless, Smith’s emphasis was on how this principle operated differently within different social structures; these structures in turn were given a simplified classification in the stages theory of development, which posited that societies proceeded through four stages of development.⁵ This can be seen as an effort in combining generality with specificity.

⁵ The hunting and gathering, pastoral and agricultural stages, leading to the final stage of commercialisation.

Nevertheless it is of course a legitimate issue to raise with respect to Smith that he aimed too much for generalisation. Within the epistemological approach of the time, Sir James Steuart for example veered much more towards specificity. But it is important to remember that Smith's generalisations arose from the way in which he approached economies and theories about them as systems. As Loasby (2003) points out, a system is defined not only by its connections, but also crucially by its lack of connections. Without some limitation on interconnectedness, a system cannot function (Potts 2000). While the market provides connections, the principle of the division of labour provides a crucial mechanism for limiting connections. The division of labour segments sets of ideas, of production, and indeed of economic organisation in general, so that they constitute systems. Theorising about the economy as a system was persuasive if it was psychologically satisfying to an audience, rather than something which could be demonstrated to be a 'true' account of reality. Smith explicitly warned against the over-reliance on connecting principles as found in Descartes's deductivist system.

Just as Hodgson focused his concern with Smith's generalisations on his theory of human nature, this was also his focus on Keynes, with his psychological propensities. But it is the purported generality of the *General Theory* itself which is perhaps more to the point. This is a complex question, as Hodgson (2005) accepts. But there is an answer which, as with Smith, applies at the epistemological level. Keynes aimed to make fewer simplifying assumptions than the prevailing mainstream. But it is on the epistemological assumptions that we need to focus.⁶ The *Treatise on Probability* explored beliefs as a basis for action under the conditions of uncertainty which followed from an open-system ontology. Keynes explained that uncertainty was the general case, while certainty required the satisfaction of very specific conditions. Yet the classical theory he was seeking to supplant presumed these conditions to be satisfied. Since the *General Theory* presumed uncertainty to be the norm to which the psychological propensities applied, it had more general application. As with Smith's theory of human nature and Hodgson's methodological pluralism, this was a general epistemological principle which in turn limited the scope for generality in economic theory.

Methodological Pluralism

For both Smith and Keynes, their open-system ontology required an open-system epistemology which allows for a range of approaches. If truth cannot be demonstrated then a number of legitimate ways of constructing (uncertain) knowledge can be expected to co-exist. If there is not uniformity in nature, laws cannot be demonstrated to apply and any general statements must be regarded as provisional. This epistemology thus supports methodological pluralism in the sense of advocacy of tolerance of a range of approaches.⁷

⁶ However Keynes notoriously did not draw direct connections between his *Treatise on Probability* and his approach to economics.

⁷ Methodological pluralism is not the same as theoretical pluralism, since a range of theories (e.g. for different contexts) can arise from a common methodological approach. Although Hodgson (1997) uses the expression 'theoretical pluralism', his repeated calls for variety of approach make it clear that what he is in fact advocating is what we are calling here methodological pluralism.

The first implication of this epistemology for economics is therefore an ethical argument: civilised critical economic discourse should involve respect for alternatives (Screpanti 1997). It certainly does not preclude argument in favour of one approach over another; indeed it encourages critical debate. Economics may be unusual compared to other disciplines in requiring such an argument to be made. But the mainstream view is methodologically monist, asserting the right to specify the best approach to economics, thereby excluding alternatives (defined either as substandard economics or as falling outside economics). There is then an asymmetry between mainstream economics which willfully neglects alternatives and non-mainstream approaches which inevitably need to engage with the mainstream (given its dominance in academia and in policy discourse).

A parallel has been drawn between Smith's epistemology and that of Kuhn (Skinner 1972, 1979). But while Kuhn (1962) had anticipated successive dominant paradigms in mature sciences, for many decades economics has been characterised by one persistently dominant paradigm alongside a range of alternative paradigms, or schools of thought. Each alternative school of thought is built on its own, generally open-system, ontology and the open-system epistemology derived from that. In economics, Kuhn's 'disciplinary matrix' involves a particular methodology, reflecting a particular ontology. Some (e.g. McCloskey 1990) have argued that focusing on schools of thought impedes discourse, thus violating the ethical argument for pluralism. But understanding of schools of thought raises awareness of differences in ontology and epistemology and encouraging clarity about these differences enables discourse – some degree of generality assists us in understanding methodological diversity.

Kuhn's framework, similar to that of Smith, builds on the idea that the complexity of subject matter precludes any independent epistemological rules for choosing on theoretical approach over another. The resulting relativism is anathema to a monist perspective. But from the perspective of an open-system ontology and epistemology, whereby an absence of absolute standards is inevitable, it does not mean that 'anything goes'. Hodgson (2001: 34-9) challenges postmodernism on these grounds, arguing the 'a historically sensitive theory always itself requires a more general conceptual framework' (p. 36). Indeed he argues against tolerance of different ideas held simultaneously by any one researcher, as opposed to tolerance of different ideas held by other groups of researchers. Any one research programme must be internally consistent and be intolerant of what it defines to be falsehood.

But 'consistency' and 'falsehood' are both epistemologically-laden terms which require detailed unpacking; their meaning differs according to the relevant epistemology. This requirement amply illustrates just how complex it is to draw on more than one epistemology at any one time. How can one researcher accommodate differing meanings of consistency and falsehood? Some non-mainstream economists have in fact interpreted methodological pluralism as simultaneously drawing on (rather than just tolerating) a range of approaches. This need not entail the incoherence of which Hodgson warns so forcefully (although it may). Using several approaches simultaneously could in effect mean developing a new, synthetic approach. Nevertheless Hodgson is right to warn of seeing methodological pluralism simply as combining approaches without this being understood to be a new synthetic approach, or without careful discussion of what the new synthetic approach consists of.

The demands on open-system schools of thought more generally are much greater than on closed-system schools, since they require active argument and persuasion in economics discourse. Further, the sociology of disciplines requires some limits to the range of possible schools of thought, if each is to be able to support a thriving academic community. Thus, while different individuals within a community may differ somewhat in ontology and epistemology, there has to be some basic shared foundation for meaning and thus constructive discourse. In practice, this means that different groups of economists coalesce around congenial journals and conferences, for example. This means that any methodological pluralism is structured around a loose range of schools of thought, with permeable and provisional boundaries which allow evolution as ideas are exchanged and as the subject matter itself evolves (Dow 2004). In terms of the sociology of science, the unrestricted plurality of postmodernism could not in practice persist.

Methodological pluralism means that any economist should be sufficiently methodologically aware to be able to make the case for her own approach relative to others. No approach can be definitively demonstrated to be superior, but that does not mean that argument for one's own approach cannot be made forcefully. Non-mainstream economists are inevitably methodologically aware and pluralist in that their case often has to be made relative to the mainstream approach, but, as Hodgson points out, they do not always recognise this. Indeed there are some apparent expressions of monism among non-mainstream economists who are focused on replacing the mainstream approach as 'wrong' with their own which is 'right'. A flavour of the debates surrounding pluralism and heterodoxy can be found in Sent (2003), Garnett (2006), Freeman and Kliman (2006), Davis (2008), Dow (2008), and the symposium on pluralism in issue 26(4), 2014, of *The Review of Political Economy*.

Most of the methodological pluralism literature has focused on tolerance of a plurality of approaches and the responsibility of every economist to be sufficiently knowledgeable about other approaches to be able to defend her own approach. Hodgson (1997) goes further by actively advocating plurality. He has consistently emphasised the merits of drawing on biology rather than physics as a guide for the development of economics. It should come as no surprise therefore that Hodgson (1997: 147) uses an analogy with Darwinian evolution to argue for methodological pluralism: variety is necessary for survival of the species, in order for it to be capable of responding to the unforeseen challenges of an open system. This argument could apply to the relative capacities of one approach compared to others in providing better explanations under new circumstances. It is sufficient then for a range of approaches to be allowed to flourish and for awareness of them to be encouraged, so that good choices are made as to change of approach when required by new circumstances.

However Hodgson (1997) goes even further, applying the argument to a particular epistemological approach: the pragmatist Peirce's method of abduction, which benefits from access to a plurality of ideas on which the imagination can work at any one time. Hodgson prefaces this argument by an exploration of the role of metaphor. While metaphor has become regarded in mainstream economics as a decorative form of expression which can be eradicated by formalism, Hodgson demonstrates the pervasive power of metaphor even in mainstream economics. Classification by means of metaphor ('human capital', for example) means that 'facts' are mediated by particular understandings:

‘By their nature, [metaphors] are never complete, precise, or literal mappings. ...[T]o describe the economy as “evolving” is not simply to state that the economy develops like an organism or a species in the natural world. It also may prompt the investigator to consider the many meanings and ambiguities in the term “evolve” and the many extensions and facets of the implicit analogy between the natural and the social world’ (Hodgson 1997: 138).

For Peirce, the making of new connections by means of judicious use of metaphor is a creative process of abduction; a new set of connections and absence of connection creates a new understanding of system. While neither deduction nor induction is logically workable on its own, abduction instead involves the creative formulation of an explanatory hypothesis: ‘Peirce seems to have in mind the spark of intellectual creativity or intuition, kindled in the tinder of assimilated facts’ (Hodgson 1997: 145). For Hodgson, the role of methodological pluralism is to provide an array of approaches from which a creative conceptual and thereby theoretical leap can be made, employing metaphor.

The importance of pluralism from this perspective is that the individual economist, or group of economists, be aware of a range of approaches from which they may draw; the available range of approaches provides the base material for new methodological and theoretical developments. It is not just that economists should respect alternatives and be prepared to argue for their own approach, but that they should understand other approaches enough to draw on them in a creative way. This is very challenging, given that each approach employs its own ontology, epistemology and methodology. While most major breakthroughs in economics probably involve borrowing ideas from alternative frameworks (making new connections), it is hard to envisage this as the normal process of enquiry for all economists. Hodgson is clear that he does not mean that each approach is carried forward in its own terms; it is not important that original ideas are understood in the same way by those adapting them. In this way, presumably, economists can avoid the internal contradictions Hodgson had pointed to in postmodernism. But the outcome falls short of methodological pluralism understood as addressing a range of approaches in their own terms (as a methodologist would). The idea of making new connections applies more easily to developments within any one approach, offering an additional source of new explanatory hypotheses. These may well draw on ‘clashes and tensions between different approaches’ (Hodgson 1997: 146), but understood from one or other approach.

Hodgson (1997: 138-9) notes that Smith (1795) had emphasised the role of metaphor and imagination in scientific enquiry. Indeed Smith had pioneered the study of rhetoric in terms of epistemology at a time when rhetoric referred only to linguistic style (Smith 1762-3).⁸ Smith too employed the method of abduction as an application of the Newtonian experimental method, whereby provisional principles were developed by the application of the imagination to assimilated facts (in Smith’s case, predominantly historical material), and theories developed by the application of reason (Montes 2006). It is therefore misleading to refer as Hodgson (1997: 139) does to ‘the tradition of Descartes and Newton’, given the overwhelmingly deductivist approach

⁸ Even in his work on rhetoric, Smith combined generality with specificity, advising his listeners to tailor their rhetoric to their particular audience.

of Descartes. Within the Newtonian method, further, there could be a range of aptitudes for seeking some generality. But the generality of the principle of the division of labour was not the generality of general equilibrium theory, for example. Rather, it was a principle for investigating different circumstances and drawing out the form that the division of labour took in each; it was a psychologically-satisfying metaphor to guide enquiry rather than a general law.

It was through the imagination that new connections were made on which new theories could be built, drawing then on reason for the formulation of hypotheses and evidence for considering further these hypotheses in particular circumstances, with a view to adaptation and amendment. But the application of the imagination and reason to experience required human motivation: the need to satisfy the sense of wonder at unexplained events. For Smith, as for Hume, the basis for knowledge lay in sentiment or passion. Their epistemology thus had their theory of human nature at its core. But then the same can be said of Peirce and Hodgson who identify human creativity at the core of their epistemology.

But the argument for pluralism could be extended further to the level of practice by drawing on the argument about historical specificity. If history (and geography) only yielded expanded homogeneous datasets, i.e. there was uniformity in nature, then it would have no particular significance. But historical and geographical specificity means that the researcher is presented with an array of experiences. Not only can this array reveal new patterns, by means of the imagination, but the act of exploring the nature and meaning of these different experiences alters our understanding of each and may suggest new connections. New patterns suggest new explanatory hypotheses which may have different manifestations in different circumstances. This accords with Keynes's use of negative analogy, whereby persistence of relations in spite of variety of context adds weight to the relations. The awareness of specificity thus allows us to formulate a much richer set of provisional (general) principles by which to investigate each experience, the result of which may well be to modify the principles. The adaptation to suit particular circumstances provides the basis for theoretical pluralism. This is the Newtonian experimental method.

Conclusion

Hodgson's emphasis on historical specificity enhances our understanding of the implications of evolving systems. But the emphasis also on geographical specificity takes further the argument for a plurality of theories, albeit supported by (partial) general arguments. Hodgson thus contributes to our understanding of ontological plurality and what that implies for theorising.

Hodgson's views on methodological pluralism go much further than other contributors to the literature. He urges, not only tolerance of, but the fostering of a range of approaches. By building on Peirce's abductive methodology, Hodgson argues that new ideas for explanatory hypotheses will be encouraged by a creative drawing on a range of approaches. This can only be methodological pluralism in a limited sense since applying several approaches simultaneously in their own terms risks incoherence; it is only workable within one, possibly synthetic, approach. Nevertheless historical and geographical diversity itself provides a diverse range of experience for

the creative drawing of new connections in an abductive manner. In that way, specificity may yield some provisional general principles which can then contribute to context-specific theories.

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