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THE SCOTTISH POLITICAL ECONOMY TRADITION

by

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INTRODUCTION

Scottish political economists, most notably Adam Smith, undoubtedly played a significant role in the development of economics. Adam Smith promoted the idea of thinking of the economy as a system, and drew attention to many of the questions which have exercised economists' minds ever since: questions of value and distribution, questions of economic growth, trade, taxation and money. But Adam Smith was by no means alone: other Scottish figures who made significant contributions in their own right, as well as influencing, sparring with, or being influenced by, Smith included Anderson, Carmichael, Chalmers, Ferguson, Hume, Hutcheson, Lauderdale, Rae, Reid, Steuart and Stewart.

It has been argued, for example by Macfie (1955), Campbell (1976), Dow (1987) and Mair (1990, Introduction) that, rather than considering each of these figures only individually, and subject to diverse influences, there is a commonality between them which justifies considering them as part of a Scottish tradition. To do so raises further questions, as to the nature of the tradition in relation to other traditions, and as to the longevity of the tradition. All of Macfie, Dow and Mair see the tradition extending long past the period of the Enlightenment, and discuss the Scottish tradition in relation to modern economics.

The purpose of this article is to reconsider the question of the nature and existence of a Scottish tradition in political economy, in relation to modern economics. The discussion will draw on recent developments in economic methodology which offer insights not available to the earlier literature on the Scottish political economy tradition and which offer a new perspective on the significance of the Scottish approach.

First we focus on the notion of tradition itself, in an attempt to clarify its meaning in relation to alternative concepts such as schools and paradigms. By specifying the nature of tradition more explicitly than in the earlier literature, the foundation is provided for the specification of the nature of the Scottish political economy tradition in the following section. Tradition is understood as referring to an approach to theorising and the relationship between theory and reality, rather than the content of theory as such. It is therefore not surprising that Scottish political economy should have inspired diverse theoretical developments. Those developments which can be seen as a continuation of the Scottish tradition differ in terms of theoretical content, but not in underlying approach to theorising; they all come under the umbrella of 'political economy'.

Finally we reconsider the concept of tradition, and the Scottish tradition in particular, in the light of recent developments in methodology. In particular, there have been two significant developments each of which can be seen to have roots in the Scottish tradition, and can in turn illuminate our understanding of the nature of the tradition: the hermeneutic/rhetoric approach, and the critical realist approach. There is currently debate as to whether these two approaches are mutually exclusive. By considering them together in the context of the Scottish political economy tradition, we can understand the Scottish tradition as an exemplar of a complementarity between the two approaches. This suggests that a reconsideration of the Scottish tradition in this light may show one possible, constructive, way forward for modern economics.

THE CONCEPT OF TRADITION

First we need to address the question of what is meant by the term 'tradition' (see further Dow *et al*, 1997). Tradition connotes a passing down from one generation to another. A tradition is thus something which can be identified over a long period of time (defined as extending over generations). A tradition is thus distinguished from a school of thought, which normally refers to a set of contemporaries. Skinner (1965) identifies a Scottish historical school within a specific community of scholars in Scotland in the eighteenth century (see also Brown, 1988 and Hutchison, 1988). This school is identified by 'a distinct theory of history ... remarkable for its formality and for the clear and unequivocal link which was established between economic and social organisation' (Skinner, 1965, 1-2). By considering a Scottish political economy tradition, we are positing a commonality which extended well beyond the eighteenth century.

The concept of tradition refers to a commonality of customs, thought and practices. In other words, it extends beyond specific theories to encompass what we might call an 'approach' to the subject matter. This conception of tradition as approach was evident in Macfie's (1955) reference to the Scottish 'approach and method', Gray's (1976) reference to the tradition in terms of the 'role of knowledge in society, and the role of morality', and Skinner's (1992, p.236) reference to a 'common style of approach' among Smith and his predecessors. What is being suggested, then, is that the Scottish tradition encapsulated a specific view of scientific knowledge, its relation to reality and its role in society which generated a particular approach to economics. The eighteenth century Scottish historical school was then a part of that tradition, as expressed by a particular group of individuals at that time. Implicit, then, is the notion that there was something distinctive about Scottish Enlightenment philosophy which generated a distinctive approach to economics. This notion of distinctiveness is explored in Campbell and Skinner (1982). But we argue further that this approach was embodied in a tradition which extended well beyond the eighteenth century.

Kuhn's concept of paradigm has been brought to bear in earlier discussions of Scottish political economy (see O'Brien, 1976 and Dow, 1987). Kuhn's (1974) notion of paradigm as extending from *Weltanschauung*, or world-view, to disciplinary matrix, or theoretical tools, captures the importance of philosophical underpinnings. His emphasis on the role of scientific communities also captures the importance of the social structure of science. In this spirit, Tribe (1988, 3 n.6) suggests that tradition involves 'not simply theoretical, practical and descriptive principles, but the role and organisation of teaching...the application of economic knowledge and the establishment of professional and academic associations.' Also paradigms, unlike schools, are often understood to persist over several generations.

The similarity between tradition and paradigm is most strong at the epistemological level, ie both entail a similar view of the growth of scientific knowledge within scientific communities, underpinned by a shared philosophical view. But paradigms also tend to be identified at the ontological level, with each paradigm entailing a distinctive, shared world-view. As we shall see in the following section, the Scottish political economy tradition has spawned quite distinctive developments which we would associate with quite different paradigms. Indeed O'Brien (1976) explicitly considers whether Smith's influence on economics should be understood paradigmatically. By focusing on the continuities, as well as discontinuities in Classical thought, he concludes that Kuhn's vision of distinct

paradigms being overthrown by scientific revolutions does not fit very well. But there has been a specific range of developments emanating from eighteenth-century Scottish political economy which share a view of how to generate knowledge and how to regard that knowledge, in relation to reality, ie they share a common approach to economics, and can thus be seen to belong in the same, Scottish political economy, tradition. These developments can be categorised as political economy, to distinguish them from modern mainstream economics, which adopts a different approach (see Dow, 1990). While it can be debated how far the shift from the political economy approach to the approach of modern mainstream economics was revolutionary, the two approaches do conform to the incommensurability of the Kuhnian framework. But the political economy approach has within its various strands sufficient incommensurability to allow us to identify a range of paradigms. The tradition concept is thus broader than the paradigm concept.

O'Brien (1976) also argues against understanding the legacy of Smith in Popperian terms as a gradual accretion of knowledge, built on the falsification of propositions. Popper (1974) also had a conception of tradition which emphasised its sociological foundation in 'discourse communities'. Yet he saw tradition in methodological-individualist terms (ie it was to be understood in terms of individuals) and also saw it as internally-generated. The view of tradition adopted here (which is in fact consistent with the particular epistemology of the Scottish political economy tradition) is that traditions are the product of the wider intellectual, cultural and social environment. It is this which justifies the starting-point of considering a tradition particular to a (Scottish) society, even though we can identify its influence on thought in other societies. Thus we can see the origins of the Scottish political economy tradition, for example, in the education system, with its early emphasis on the historical and the philosophical. Just as a tradition has consequences in the future evolution of institutions, it can also be seen as arising from a particular set of institutions. We can then understand the persistence of a tradition in the persistence of the environment which originally spawned it.

This discussion of tradition is in danger of becoming circular, stemming as it does from the Scottish political economy approach and its underlying theory of knowledge. We therefore turn in the next section to considering the nature of the Scottish political economy tradition directly.

THE NATURE OF THE SCOTTISH POLITICAL ECONOMY TRADITION

Since we have suggested that traditions in economic thought are a product of their environment, we need to consider the nature of the environment which spawned the Scottish political economy tradition. The intellectual environment was that of the Scottish Enlightenment. While other Enlightenments are often presented as being 'rationalist', that was not the case for the Scottish Enlightenment. Certainly there was the same reaction against clerical dogmatism as elsewhere, and the same drive to build science on reason. But the status of scientific knowledge was distinctive in Scotland. Hume's (1964) scepticism was a relatively extreme expression of an epistemology which recognised that, while science might uncover truth, the problem of induction meant that there was no assurance that truth could be known to have been identified. There was a range of possible scientific accounts of real phenomena. Further, scientific accounts should be particular to context although the aim is to identify general principles.

This recognition, and thus tolerance, of the co-existence of alternative viewpoints may be seen as the outcome, among other things, of Scotland's political position vis-a-vis England (see Phillipson, 1975). Particularly following the union of 1707, there were frequent episodes in which differences between Scottish and English opinion were evident. For Scotland, there was no denying the reality of alternative perspectives. For England, the dominant neighbour, however, these disputes were marginal to normal existence and the acknowledgement of alternative viewpoints was thus not a central feature of life.

The open, tolerant system of thought which thus emerged in the Enlightenment was in turn reinforced by the system of higher education in Scotland. (See Davie, 1961 and Cant, 1982. The importance of education system was also emphasised by Macfie, 1955.) Higher education started, at a relatively early age, with instruction in logic and moral philosophy. This early training influenced the way in which other disciplines were taught, so that they too took a philosophical approach. Mathematics, for example, was taught by means of historical accounts of the development of different mathematical systems, implying that choice of mathematical system was context-specific. This facilitated inventive applications of theory to practical problems, an orientation encouraged further by the emphasis on the Romans in classical education, rather than the Greeks.

The education system was the institutional arrangement in Scotland which most directly influenced the approach taken to knowledge, and its relation to reality. But other institutional arrangements and their underlying philosophies likewise promoted this particular scientific approach. The Church of Scotland and its approach to religious knowledge and practice (see Rothbard, 1995) the Scottish legal system and the principles of jurisprudence (see Smith,) and the cooperative Scottish system of public affairs (see Chalmers,) all contributed to open-system ways of thinking, combining convention and contingency with first principles.

Political economy emerged as a practical application of moral philosophy in Carmichael lectures at Glasgow, and then Hutcheson's, which Smith attended. Smith himself contributed to the articulation of the Scottish Enlightenment view of science in the *History of Astronomy* (Smith, 1778), where he discussed the motivation for science in psychological terms. This was reinforced by his *Lectures on Rhetoric and Belles Lettres* (1983), where he analysed the nature of scientific discourse. Here he explicitly drew attention to theories which were rhetorically successful, where success in persuasion was not necessarily an indicator of closeness to the truth:

It gives great pleasure to see the phaenomena which we reckoned the most unaccountable as deduced from some principle (commonly a wellknown one) and all united in one chain....We need not be surprised then that the Cartesian Philosophy tho it does not perhaps contain a word truth ... should nevertheless have been so universally received by all the Learned in Europe at the time. (Smith, 1783; 1983, p. 146)

Because political economy emerged as a practical application of moral philosophy, the starting-point for analysis was practical questions whose analysis required detailed understanding of the nature of the subject-matter. Thus, while Hume's scepticism had drawn attention to the problem of induction, nevertheless observation was inevitably a central part of any economic analysis. From this observation, general principles could be derived which could then be applied to other questions. Thus Smith's observations of the social aspect of human nature led him to expound his principle of sympathy in *The Theory of Moral Sentiments* (Smith, 1759)

while his observation of economic processes led him to expound the principle of the division of labour in the *Wealth of Nations* (Smith, 1776).

Finally, the view of science which developed under the influence of Hume was that study of human nature should be central, where human nature was understood primarily in terms of 'passions', with reason secondary. Thus, just as political economy emerged as a practical application of moral philosophy, so did the other social sciences. Therefore, not only was political economy understood in terms of philosophy and history, but also it was not seen as separable from the other emerging social sciences. It was natural therefore for political economy to develop in what we would now see as an interdisciplinary environment.

Indeed the open system of thought encouraged by the epistemology of the Scottish Enlightenment itself encouraged each discipline to develop as an open system of thought. What we mean by an open system is one whose boundaries are not predetermined. Further, the nature and range of its constituent variables and the structure of their interrelationships are not predetermined. This followed from the starting point of human nature, understood in terms of passions and sentiments of individuals as social beings. It also followed from the historical approach which required 'the need to adapt to changed circumstances, while suggesting that the processes of history could not be reversed' (Campbell and Skinner, 1982, p.2).

The features of the Scottish political economy tradition were summarised in Dow (1987) as follows:

- an acceptance of the limitations of theory
- a recognition of the sociological and psychological aspects of theory appraisal
- a concern with practical issues
- a consequent preference for breadth of understanding of the background to these issues, over depth of isolated aspects
- a preference for drawing on several disciplines in an integrated manner to provide that depth
- a preference for arguing from first principles
- a preference for approaching a subject's first principles by discussing their contextual development
- a specification of first principles in terms of a non-individualistic representation of human nature, with a consequent emphasis on conventional behaviour.

All of these features of the Scottish political economy tradition refer to approach rather than content. The tradition could thus encompass a range of distinctive views and theories, with explicit differences between Smith and Steuart, for example (see Skinner, 1981) or by Rae with respect to Smith (see Dow *et al.*, forthcoming).

One way of attempting to establish the identity of the Scottish tradition would be to demonstrate the commonality of approach among those identified with the Scottish tradition in spite of, in many cases marked, theoretical differences. In the various accounts which have focused on the existence of a Scottish tradition, the emphasis has been on approach, variously categorised as 'philosophical, sociological' (Macfie, 1955), 'historical' (Hutchison, 1988) and 'holistic' (Gray, 1988). Mair (1990) gathered together essays on a range of figures in the Scottish tradition (such as Hume, Smith, Steuart and Rae) often characterised for their distinctiveness, in order to demonstrate their commonality.

Here we choose an alternative means of elucidation by considering a range of developments in economic thought which draw influence from Smith and/or the Scottish tradition. It is hard in fact to find any body of economic thought which does not express some debt to Smith. If the argument is to have content, that there is an approach to economics which can still be identified with the Scottish tradition, we must distinguish between those developments which carry forward the Scottish political economy approach and those which do not. In other words, some developments can be seen as carrying forward some of the content of Smith's work (in the form of questions or theories, interpreted according to a different approach) but not his approach.

Of the various modern schools of thought in economics, we can identify several which share what we may call the 'political economy' approach (see Dow, 1990): neo-Austrian economics, some Marxian economics, Institutionalist economics and Post Keynesian economics. While each has a different vision of real processes, there is a shared theory of knowledge in the sense that each is concerned to understand real processes. Since these processes are not deterministic, but rather entail crucial elements of creativity and/or evolution, reality is seen as an open system. Certain knowledge of these processes, therefore, is not feasible. Theory therefore itself develops as an open system, with reference to context, and embracing other disciplines. Theory refers to first principles which derive from the vision of real processes held by each paradigm.

The influence of Smith and the Scottish tradition on each of the political economy paradigms is well documented. The influence on Marx and Marxian economics is evident, for example, in Heilbroner's (1986) interpretation of Smith. The influence on Institutionalist economics is explained in Sobel (1987). Dow (1991) explains the consistency between the Scottish approach and Post Keynesian economics.

Here we will focus on neo-Austrian economics for our consideration of the influence of the Scottish tradition on political economy. We will then compare this influence with that on modern mainstream economics. It will be argued that the former carries forward the Scottish political economy approach, while the latter does not.

Let us consider first the view taken of Smith and Scottish political economy by the neo-Austrians. Hayek always made explicit the considerable extent to which he had been influenced by Ferguson, Smith and Hume in particular. Gray (1988) specifically draws attention to Hayek's recognition of the difference between the Scottish Enlightenment and the French Enlightenment, where the former emphasised the limitations to human understanding, while the latter was rationalist in the conventional sense of the term. The debt to the Scottish tradition was thus primarily at the level of approach to knowledge about the economy, knowledge being in turn central to the content of Hayek's theory. Further, Gray draws attention to the openness to other disciplines entailed in a view of individuals as social beings which Hayek carried forward from the Scottish tradition. Thus, for all neo-Austrians are associated with methodological individualism, the individual is viewed in social terms, acting within a particular institutional environment.

This thesis, that neo-Austrian economics follows in the Scottish political economy tradition, might seem to be belied by Rothbard's (1995) account of the history of thought from an Austrian perspective. Here he castigates Smith for setting

economics on the path which led away from the foundations of the neo-Austrian approach, which Rothbard identifies as having been laid by Smith's predecessors:

As a result, the Austrians and their nineteenth century predecessors, largely deprived of knowledge of the pre-Smith tradition, were in many ways forced to reinvent the wheel, to painfully claw their way back to the knowledge that many pre-Smithians had enjoyed long before. (Rothbard, 1995, p.502)

Thus Rothbard argues that neo-Austrian economics is consistent with the Scottish political economy approach, but precludes Smith from that approach.

Rothbard's approach to the history of thought is itself an example of the application of the Scottish political economy approach. He emphasises the possibility of economic thought taking wrong turnings, with Smith as his prime example, explicitly pointing out the importance of the Kuhnian notion of incommensurability, and the non-accretionist view of the development of thought. More generally, he emphasises context as being significant for the development of thought, referring to:

... my growing conviction that leaving out religious outlook, as well as social and political philosophy, would disastrously skew any picture of the history of economic thought. (Rothbard, 1995, p.xiii)

Rothbard's objections to Smith focus primarily on content (such as the labour theory of value) rather than approach, and thus need not concern us here. Where he does refer to approach, it is not clear that his interpretation of Smith is altogether apposite. Rothbard castigates Smith for his treatment of the *laissez-faire* argument by pointing to what we would identify as Smith's consistency with the Scottish tradition. Rothbard (1995, pp. 465-466) correctly, in our view, defends Smith against the charge of applying an *a priori* concept, the Invisible Hand; this concept rather was the result of the study of actual market processes. But he proceeds to castigate Smith for enumerating exceptions to the *laissez-faire* principle, in spite of the fact that context-specific analysis (which inevitably colours the application of general principles) is another hallmark of the Scottish tradition.

The other aspect of Rothbard's critique of Smith in terms of approach is central to the question of Smith's subsequent influence on the direction taken by economics. Rothbard associates Smith with a focus on long-run equilibrium. He identifies the problem with Smith's monetary theory and value theory with:

Smith's shift of concentration from the real world of market prices to the exclusive vision of long-run 'natural' equilibrium. The shift from the real world of market process to focusing on equilibrium states made Smith impatient with the process analysis which was the hallmark and the merit of the price-specie-flow approach. (Rothbard, 1995, p.461)

Rothbard is identifying here what he sees as a move away from what we have characterised as the Scottish political economy approach, with its emphasis on process. Rothbard's interpretation cuts across those interpretations of Smith as promoting the Scottish political economy approach with its emphasis on historical process. Skinner (1979) and Groenewegen (1982), for example, argue that Smith was fully conscious of the incompatibility between general equilibrium analysis and the history approach which he employed, in the Scottish tradition. (See also Dow and Dow, forthcoming, for this argument addressed specifically to Rothbard's interpretation.)

But Rothbard's argument about the influence of Smith's work on the subsequent development of economics has substance, to the extent that others have similarly interpreted Smith in general equilibrium terms. Blaug (1964, pp. 41-44) and

Hollander (1973, chapter 4), for example, have promoted the view that Smith was the inspiration for general equilibrium theory. Indeed Arrow and Hahn introduce their seminal account of that theory with reference to Smith:

Smith ...perceived the most important implication of general equilibrium theory, the ability of a competitive system to achieve an allocation of resources that is efficient in some sense. Nothing resembling a rigorous argument for, or even a careful statement of the efficiency proposition can be found in Smith, however. (Arrow and Hahn, 1971, p.2)

Winch (forthcoming) has detailed the senses in which general equilibrium theorists have misinterpreted Smith, as a result of reading Smith from a modern general equilibrium perspective. This perspective is based on a closed-system, formalist approach to theory as having universal application. As a closed system approach, it is not open to other disciplines. As a formalist system, it has an internalist claim to truth. The rationalist view of human nature it embodies depicts individuals as independent, atomistic agents for whom rationality supercedes passions. It takes inspiration from the rationalist French Enlightenment, which Hayek had distinguished from the Scottish Enlightenment in the delineation of the Austrian approach. Smith himself (as evidenced by the quotation on page?? above) noted the Cartesian approach for its persuasiveness rather than its closeness to truth.

To say that modern political economy paradigms thus represent a continuation of the Scottish tradition is to say more than that modern economics can all be traced back to prior influences. General equilibrium theory is sometimes expressed as a continuation from Smithian economics. But it is a continuation in the sense that questions Smith posed in terms of the Scottish political economy approach have been posed again within the quite different approach of general equilibrium theory, which can be identified more closely with the rationalist approach. In other words we are distinguishing here between content, in the form of questions and theories, and approach, and identifying the Scottish tradition with the latter. Further, the way in which questions and theories are understood is coloured fundamentally by approach, which contributes to such different interpretations of Smith.

Questions of interpretation and approach to theorising are now at the forefront of discussions within philosophy of science as applied to economics. The Scottish approach itself represents a particular stance on the generation of knowledge, its diffusion through persuasion and its relation to the real world. Again the discussion is in danger of becoming circular in that the continuation of the Scottish tradition is being discussed here on the basis of the theory of knowledge and its relation to the real world embodied by the Scottish tradition. We therefore turn in the next section to consider explicitly the content of the Scottish approach in the context of modern discussions about knowledge, persuasion and reality.

SCOTTISH POLITICAL ECONOMY AND MODERN PHILOSOPHY OF ECONOMICS

There is a limit to the usefulness of considering the Scottish political economy tradition as a set of theories in the context of modern economics. But a consideration of the Scottish political economy tradition as an approach to economics is potentially of considerable interest as an exemplar for modern economics. As an approach which emphasised the significance of historical context, it is particularly apposite for

translation into the modern context. Further, this approach explicitly addresses some of the issues raised in recent developments in the methodology of economics.

Modern economics can be characterised by a range of schools of thought which are differentiated by their methodology. We consider here the argument that the Scottish tradition is still evident in the analysis of the philosophical underpinnings of theory which has developed alongside the development of particular paradigms which fall into the category of political economy. One notable characteristic of political economy in its different forms is a philosophical awareness which is not generally characteristic of mainstream economics. This awareness may be explained at least in part by the need to understand and articulate methodological differences from the mainstream. But it has also been necessitated by the need to legitimise the whole notion of alternatives. Mainstream economics is built on the accretion-of-knowledge view sustained first by the deductivism of Ricardo and then its empirical counterpart in logical positivism. Economic theorising, then, as well as economic theory, is viewed as a closed system.

It was therefore not surprising that non-mainstream economists should be attracted to the ideas of Kuhn, which supported the legitimacy of competing, incommensurate paradigms. The common elements between Kuhn and Smith were highlighted by Skinner (1979). Smith (1778) had argued in *the History of Astronomy* that science was a human (and thus social) activity motivated by psychological needs. Because of the problem of induction, no one theory could lay claim to truth; which theory succeeded depended on the correspondence between theory and observed reality, but seen through a socio-psychological filter. Smith too, therefore, had a view of science as non-accretionist, but evolving according to complex socio-psychological principles within an open system of knowledge. The Scottish political economy tradition, which embodied this view of science, therefore anticipated Kuhn. This could now be said to be part of the conventional wisdom in Smithian studies.

But discussion in philosophy of science, and in the methodology of economics, has gone beyond Kuhn. In particular, it has developed along two strands: constructivism and realism. It might therefore be argued that modern discussion has moved beyond any contribution which the Scottish political economy tradition might make. On the contrary, it will be argued here that the Scottish tradition in fact anticipated both of these strands. Modern discussion is at the stage of tentative moves in the direction of reconciling these two strands in a synthesis which combines constructivism and realism. The Scottish political economy tradition in fact offers an exemplar of such a synthesis. This is controversial in that each strand sees its own approach as a progression from what has gone before in economic thought.

The first strand, termed constructivism (see Backhouse, 1992) can be understood as a logical extension of Kuhn's approach (mis)understood in dualist terms (see Dow, 1997a). Hume's efforts to provide a foundation for science in spite of his awareness of the problem of induction have been widely (mis)understood as out-and-out scepticism (see Fitzgibbons, 1995, Appendix 1). Similarly, Kuhn's efforts to demonstrate how science actually proceeds in the absence of universal appraisal criteria were (mis)understood as out-and-out-relativism (see Blaug, 1980). Those who adopted this awareness of the contextuality of knowledge, and the dangers of universal criteria for appraisal, but who did so from a dualistic perspective, espoused the dual of traditional, prescriptive methodology, which was no methodology at all.

Constructivism has two main strands: the rhetoric/hermeneutic approach and the postmodernist approach. The former, whose leader is McCloskey (1986, 1994),

focuses on the rhetorical devices by which economists actually persuade, as opposed to what is presented as the demonstrative logic of the official methodology. In many ways, we can see this approach as being anticipated by Smith (1723 - 1790). Smith too saw the communication of scientific ideas as an exercise in persuasion, and constructed a detailed analysis of different categories of rhetoric and techniques of persuasion. His references to the persuasiveness of Descartes's system presage modern discussion of the persuasiveness of the official discourse of mainstream economics as a closed, axiomatic, formal system.

The modern rhetoric approach allows for the possibility of the general acceptance of particular theories, but as the result of rhetorical persuasion rather than demonstrative logic. Much of modern methodology now consists of descriptive analysis of theoretical developments along these lines (see Dow, 1997a). Postmodernists go further in denying the feasibility of general theories, in that the fragmentation of knowledge (and, implicitly, of nature) precludes anything but the most particular of statements to be made, while even these may be understood differently by different economists (see for example Amariglio, 1990). There is something in common here between the postmodern approach and the historical approach of the Scottish tradition, with its emphasis on particularity of context and of understanding, and the irreversibility of history.

Constructivism is presented as a position on theory of knowledge, without reference to reality. Constructivism denies the possibility of statements about reality, given the particularity of any one economist's knowledge. Indeed this is the object of criticism of much of economics emanating from the critical realist approach (see Lawson, 1997), which is the second major strand in modern thinking on economic methodology which we consider here. For our purposes it is notable too that the constructivist over-emphasis on theory of knowledge is seen by critical realists as stemming from Hume and the Scottish Enlightenment (see Bhaskar, 1975, Introduction). The critical realist approach requires that analysis start with statements about reality. It would then follow that economics would focus on underlying economic processes rather than surface 'events'. Critical realism has been identified by some political economists as providing a satisfactory account of the political economy approach (see for example Arestis, 1990, and Lavoie, 1990).

The critical realist approach can be seen to have elements in common with the Scottish political economy tradition. Smith's search for first principles on the basis of detailed historical analysis within an open theoretical system, taking account of the possibility of causal processes interweaving in a way which precluded analysis by means of a closed, formal system, would seem consistent with critical realist methodology.

But it would at first sight appear contradictory to identify both the constructivist and critical realist approaches with the Scottish political economy tradition. How could one tradition encompass both a denial of ontology and a belief in the centrality of ontology? The problem of incompatibility can in fact be seen as yet another manifestation of dualism, which drives thought into positions defined in mutually-exclusive, all-encompassing categories (see Dow, 1990a). Since the Scottish political economy tradition is based on open-system theorising, it is non-dualist, and this type of categorisation is inappropriate.

In fact the critical realist approach already embodies elements of constructivism in that the economic process, theory and knowledge in general are all understood as open systems. There is no necessary expectation that two realist

analyses will identify the same underlying causal processes. Indeed it is central to the approach that any context will involve a range of causal processes operating simultaneously. Not only is a range of methods required to build up an understanding of particular causal processes, but different economists might well focus on different causal processes for their enquiries.

There have been moves to demonstrate that there is a significant middle ground between constructivism and critical realism. First, Maki (1988) argued that the rhetoric approach employed a type of realism with respect to the object of discourse, ie it was an analysis of actual processes of persuasion. Second, it was argued that the way forward for the rhetoric approach is to acknowledge the role of criticism in analysis of rhetoric (see Stettler, 1995) and that the way forward for the postmodern approach is to acknowledge the role of an understanding of real causal mechanisms in analysing human agency (see Sofianou, 1995). Without such developments, the constructivist approach lacked a logical foundation (see Dow, 1997b). But with such developments understood as a dialectic, there was scope for the emergence of a synthesis (from the thesis of positivism and the antithesis of postmodernism) which would take economics forward (see Dow, 1997a). And indeed, now postmodern writers are seen to have moved in that direction (see Park, forthcoming).

But rather than looking forward speculatively to a possible future synthesis, the Scottish political economy tradition can be studied as an exemplar for such a synthesis. The tradition provides the basis for the constructivist approach in a theory of knowledge understood in historical, social and generally context-specific terms. Like constructivism, the Scottish approach did not presume that it was feasible to identify absolute truth. All scientists can do is attempt to establish principles and persuade others that these are good principles.

But how these principles are established, and what is persuasive, are intimately tied up with reality. Smith argued that science progresses by the scientist's attempt to reduce the psychological discomfort caused by observations which do not accord with current principles. What is persuasive, in turn, is what accords with what is already held to be known, according to common sense principles. For natural scientists, dealing with issues not of everyday concern, it is possible for principles to be developed independently of common sense. But for the social sciences, which deal in moral issues in which the general populace does have a day-to-day concern, there is less scope for deviation from what that populace has already concluded on the basis of experience (see [redacted]). Hume's argument was for science not to be so constrained by common sense understanding as to prevent it from exploring underlying causal mechanisms. But there was no suggestion that this exploration should be divorced from experience.

In other words, the Scottish tradition also springs from a view of the relation between science and reality which has far more in common with critical realism than modern critical realists acknowledge. An inspection of any of the main texts of the Scottish political economy tradition would reinforce this interpretation. The characteristics identified by the many studies of these texts note the focus on policy issues, the detailed grounding in observation, and the search for first principles representing the underlying causal processes, all expressed with the consciousness that economics could not be expected to encompass these principles in a closed, formal system. Even Smith, the greatest of the systematisers, presented his system as an open system (see Skinner, 1979).

CONCLUSION

We have attempted here to refine further the notion of a Scottish tradition in political economy. We have emphasised an interpretation of that system in terms of approach to theorising and its relation with reality. This allows for the fact that there were significant differences in theoretical content, even in the eighteenth century. We have argued further that the Scottish tradition extends well beyond the eighteenth century, noting the legacy of the Scottish tradition in a wide range of theoretical developments which come under the umbrella category of political economy. Indeed it is the political economy approach itself which shows the commonality with the Scottish tradition.

We have emphasised further the significance of the Scottish tradition also for the methodological analysis of modern economics. This analysis is currently developing along the two strands of constructivism and critical realism. Both of these strands are shown to have elements in common with the Scottish tradition. There are currently efforts to take these two strands forward synthetically. It is argued here that the Scottish political economy tradition itself encompasses just such a synthesis. By further study of the nature of this synthesis, we may better see the way forward for modern economics.

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