Traditions in Economics: The Case of Scottish Political Economy[1]

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Abstract

A number of commentators have recently identified a 'uniquely Scottish mode of thought in economics', or a particular 'Scottish political economy tradition'. In this paper the concept of tradition, defined as those features common to practitioners over a relatively long period, is investigated in relation to 'school', 'paradigm' and 'research programme'. An application of the concept to the Scottish Enlightenment period suggests that its use is in line with the philosophical approach of Adam Smith, and shows that the concept allows account to be taken of external institutional/historical influences in interpreting the history of economics.

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1. Introduction

Political economy in its modern form can be identified as arising from a variety of traditions which can be classified in terms of nationally-based intellectual traditions. There are of course important elements in common among these traditions, and important cross-fertilisations throughout their history. Nevertheless, these traditions retain sufficient national characteristics to warrant their investigation on a national basis. It is the purpose here to consider the Scottish tradition in political economy. This is of interest in its own right, but also in terms of the influence which the Scottish tradition had on the future development of political economy, and economics, on an international scale.

In recent years there has been reference to the existence of a Scottish tradition of political economy[2]. Macfie detects a distinct attitude and method which characterised the writings of Scottish economists, who were defined as such on the basis of their birthplace or cultural milieu. Dow develops this idea further by placing most of those writers listed by Macfie within the context of the Scottish Enlightenment, and identifying methodological principles common to their works. Mair has collected essays on the work of several key figures in the history of political economy, together with the previous two papers, with the purpose of reiterating the case of a "uniquely Scottish mode of thought in economics" [3], and its influence on current economic discourse. Campbell, in reviewing a number of monographs on Scottish economic history, sees "the historical factor" as "firmly embedded in the Scottish tradition of economic thought"[4].

Taken as a whole, these contributions raise interesting questions regarding the nature of any Scottish tradition, together with the prior issue of what actually constitutes a tradition. Satisfactory answers to these questions should make it possible to distinguish between political economists operating within the Scottish tradition, and those outside it. Macfie attempts to trace a chronology in the development of 'Scottish' economic thought from Francis Hutcheson to John Stuart Mill. For him, the writers featured shared a "philosophical" or "sociological" approach, as opposed to a "scientific" or "analytical" method. Their work, therefore, is not linked in terms of theoretical agreement as much as by an approach to the subject. Dow[5] attempts to specify characteristic features of a Scottish tradition, and, in so

doing, to construct a paradigm (in the Kuhnian sense) which would enable the inclusion, or otherwise, of scholars *vis-à-vis* the specific discourse community being postulated. Mair picks up the use of 'tradition' from Macfie and Dow and Campbell uses it himself, but none of them defines the term.

This paper is a starting point in a wider project which will form a view of the history of economics in Scotland using the idea of a distinctive Scottish tradition; we wish to define that tradition and to assess the extent of its continuity and continuing influence [6]. The aim here is to lay the groundwork for this project by investigating the concept of 'tradition'—as opposed to 'school', 'paradigm', or 'research programme', for example. This will provide a basis for assessing those writings which characterised the emergent study of political economy in Scotland.

The work of Adam Smith is considered here as exemplary of the discourse of the Enlightenment period. What became the discipline of political economy was originally founded upon principles very different from those which now govern what has become 'economics', a difference related to the contrasting conceptions of human nature and knowledge characteristic of the Scottish philosophers and the English utilitarians. It may be said that Smith was not a 'Classical' economist. Rather, it was as an unintended consequence that the *Wealth of Nations* was to inspire a separate field of inquiry which has evolved outwith the bounds of moral philosophy. Such an outcome may well have disturbed Smith and his contemporaries, whose aim was to understand more thoroughly the connections and interactions between the several institutions which, at any time and in any place, constitute human society.

In the next section we attempt to clarify the sense in which we use word 'tradition'. This is followed by a discussion of the development of ideas in twentieth—century philosophy of science on the concept of tradition. Finally we consider the Scottish enlightenment, and in particular Smith, in terms of tradition, and indeed as contributing to our understanding of the concept itself.

2. Terminology

We begin by considering various terms which may be used to describe and delineate scientific discourse communities. The choice of terminology affects the methodology of research into the history of thought, which, like all history, is the contemporary interpretation of past processes and events. This makes the exercise vulnerable to an inappropriate superimposition of present day issues and approaches onto past discourse [7]. Inevitably we cannot free ourselves from the constraints imposed by the knowledge that we possess. Those who see science as progressing towards a more accurate approximation of truth may assume that our knowledge is superior to that of those we are studying. On the other hand, we may regard alternative theories as just those—alternatives, each adhering to its own set of norms which cannot provide suitable criteria for the assessment of others, since any conclusion necessarily points to the superiority of the host paradigm. However, for neither position is it a satisfactory practice to invoke the work of an Adam Smith to help to legitimate present-day theory and policy, without taking account of the historical circumstances to which he referred, and the social and institutional environment which both formed him and played host to his intellectual endeavour.

We recognise that persuasion must be an important element of the case presented here, as of science in general. In order that a sufficiently persuasive interpretation of the history of political economy discourse in Scotland is realised, it is first necessary to establish the meaning of the terms chosen to signify particular phenomena. Specifically, the term 'tradition' has been selected in preference to school, paradigm or research programme. In what follows we develop a rationale for that choice. First a definition of tradition is established, which forms the basis for a comparative appraisal of the other terms. In subsequent sections Adam Smith's philosophy of science is examined as further underpinning our concept of tradition, and, in contrast, we offer a discussion of Karl Popper's treatment of tradition.

The word 'tradition' conveys an idea of continuity, if not permanence. It is a static, as opposed to dynamic, entity. According to the Collins *English Dictionary* (1979 edition), a tradition is

- the handing down from generation to generation of the same customs, beliefs, etc., esp. by word of mouth;
- the body of customs, thought, practices, etc., belonging to a particular country, people, family, or institution over a relatively long period;
- a specific custom or practice of long standing.

Traditions continue from generation to generation, but their length of life is indeterminate. Thus a tradition can be identified, however approximately, as beginning (and ending, if appropriate) at a particular time. Such identification is necessarily retrospective, although it may be asked "when does a custom or belief become a tradition?" We would not wish to impose a strict time limit on what constitutes "a relatively long period". Such indeterminacy is unavoidable. It is preferable that historians of thought, or of anything else for that matter, are free to build their own case as to what might constitute a particular tradition over whatever time period, as long as the application of a concept of tradition does not contradict the definitions outlined above. Such a position is consistent with the argument, developed below, that persuasion is an important element in scientific endeavour. It also rejects Popper's implied view of tradition as a given entity, independent of historical context.

The alternative terms available to this sort of analysis are 'school' and 'paradigm'. Neither serves the present purpose as well as 'tradition'.

Among the many dictionary meanings which the term 'school' possesses, the following two are the most relevant:

- a body of people or pupils adhering to a certain set of principles, doctrines, or methods.
- a group of artists, writers, etc., linked by the same style, teachers, or aims: the Venetian school of painting.

The use of 'school' to describe a particular group of scholars or artists connotes a specific time period, which is shorter than that suggested by 'tradition'. We may refer to a particular school of writers as belonging to a tradition of inquiry, operating within the boundaries set by that tradition. For example, we might refer to a tradition of realism within philosophy. Within that tradition there are various schools of thought, such as that of Gottlob

Frege, which possess various differing features but which adhere to essential realist precepts [8]. In such cases schools are subsets of the larger entities, traditions. Understanding them in this way, we can trace the development and evolution of those factors which contribute to the establishment of a particular school of thought, relating it to a 'family' or genealogy of works, which are linked by essential features which define the nature of the tradition to which they belong.

It is also possible that schools lie outside a recognised tradition. This relates to the problem of deciding how long certain phenomena must persist before they constitute a tradition. We might say that a school, often connoting a shorter time period than tradition, is a group of practitioners adhering to a certain set of principles. A key characteristic of a school is its tighter focus upon not only core doctrines or beliefs, but also one or more dominant personalities. Therefore schools do not necessarily belong to traditions, although if they do then they may share features in common with other schools, and it is these aspects which constitute the tradition. Such a concept of school contradicts the argument that we are bound by tradition, and that the rejection of one merely places us in another [9].

The existence of a Scottish historical school of inquiry has often been noted[10]. What links the members of this school is their adherence to "a distinct theory of history...remarkable for its formality and for the clear and unequivocable link which was established between economic and social organisation"[11]. Skinner explicitly links the existence of this school, in terms of time period and location, to Scotland in the eighteenth century. Thereafter he is able to identify the members of the discourse community which governs the development of historical inquiry in Scotland.

That school can be placed within the wider context of a Scottish tradition of philosophical inquiry. It is in this philosophical tradition that the Scottish historical school began inquiry into what became the subject of political economy. Earlier writers had already addressed similar issues[12], and they did influence the direction of inquiry undertaken by the Scots. But in the same way that later scholars, who belonged to other traditions and were inspired by the Scots' work, incorporated certain features of it in the construction of quite different theoretical systems (e.g. Ricardo and Marx), so the Scottish philosophers criticised

and incorporated aspects of their predecessors within the context of their own philosophical environment. Following the Enlightenment period, there remained in Scotland a particular structure of higher education, again the product of, *inter alia*, the intellectual climate, which incorporated the teaching of political economy within philosophy curricula. It was only towards the end of the last century that chairs of political economy were established in Glasgow and Edinburgh. From the turn of the century developed a separation of the teaching of what was for a period labelled 'economic science' at both Universities from Moral Philosophy. The process of professionalisation of 'economics', and its institutionalisation as a discipline within higher education in England, the USA and elsewhere from the latter part of the 19th century, ultimately generated a homogenisation of the subject into a 'technical' orthodoxy divorced from its philosophical roots. That this process appears to have happened more slowly, and perhaps less completely[13] in Scotland than in other parts of the Anglo—American world may offer some evidence for the influence of a separate Scottish 'tradition'.

From this it is clear that our concept of tradition, as enunciated so far, takes account of more than the content of theories. As Galbraith[14] has remarked, ideas have no respect for national boundaries, and are disseminated across geographical borders with ever-increasing ease. But what constitutes an intellectual tradition must include the institutional environment in which discourse takes place. Tribe[15] argues 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.' For it is in the institutional environment that these dynamic entities—ideas—are set in relation to what has been discussed before and what has yet to come.

Debates in the modern philosophy of science have had a profound influence on the way that economists have interpreted the development of their discipline[16], as well as inspiring a keen interest in methodological issues[17].Typically this has centred upon the applicability of Popperian falsification, Kuhnian paradigms, and Lakatosian research programmes. But Popper himself is a major contributor to the development of the notion of tradition. We consider the contribution of philosophers of science to the concept of tradition in the next section.

3. Tradition in Twentieth—Century Philosophy of Science

Karl Popper, although he described himself as a "rationalist of sorts"[18], was uncomfortable with the conventional rationalist treatment of tradition. In striving to judge everything upon its own merits, independent of any tradition, the (what we might call) naïve rationalist in fact adheres, unconsciously, to a rationalist tradition [19]. Popper argued that we may either treat the subject of tradition uncritically, which is the simple acceptance (conscious or not) of traditions, or critically, where we question traditions with a view to accepting, rejecting or compromising them[20].

A theory of tradition is, for Popper, necessarily a sociological theory[21]. The aim of social theory is to examine human action and explain its consequences, including those which are unintended. This latter aspect is of particular interest as "it is one of the striking things about social life that *nothing ever comes off exactly as intended*"[22]. One way in which these unintended consequences affect human existence is in the formation of institutions and collectives. In a similar way traditions are formed, and Popper wishes to explain how this phenomenon takes place, given that people rarely wish to start one, and will most likely fail to do so if they try. Also in need of explanation is the function of tradition in society. Popper attempts to provide answers by means of analysing what he refers to as "the rational or scientific tradition"[23].

In an interesting discussion of the evolution from pre-scientific mythology to critical discourse in ancient Greece, Popper shares Smith's idea that the theory which replaced myth was in fact myth also[24], and that, "in a certain sense, science is myth-making just as religion is"[25]. In other words, it was only when the older set of explanations of natural phenomena ceased to be satisfactory that new explanations were formulated instead. What truly differentiated the old explanations from the new was the establishment of a discourse community, in which postulates could be challenged, discussed, refined and replaced. On this basis knowledge evolved. What distinguished science from the mere traditional handing down of mythological explanations was the adoption of critical analysis, which facilitated its development.

Following a demonstration of the futility of inductivism, Popper argues that good science is that which attends to areas of current disagreement and debate, "_the *problem situation* of the day. This means that you pick up, and try to continue, a line of inquiry which has the whole background of the earlier development of science behind it; you fall in with the tradition of science"[26]. This tradition does not tell us where to begin analysing the world, but it does enable us to advance upon the progress made by previous generations, which have established "a kind of theoretical framework - not perhaps a very good one, but one which works more or less; it serves us as a kind of network, as a system of co-ordinates to which we can refer the various complexities of this world"[27]. This is the scientific tradition—not so much the accumulation of knowledge but the criticism of it. And like all traditions, it uses its own language with which to communicate its own knowledge[28].

Thus tradition is a fundamental component of human existence. The supercession of a religious mythology in ancient Greece was not the overthrow of tradition *per se*. Rather, it was the replacement of one tradition with another. Just as institutions provide a means of guidance concerning human action and expectation in society, so traditions act as providers of order and predictability. "Just as the invention of myths or theories in the field of natural science has a function—that of helping us to bring order into the events of nature—so has the creation of traditions in the field of society"[29]. And the reason for changes in traditions is that, like scientific theories, they are open to critical appraisal.

Having explored the nature of tradition, Popper turns to the reasons for its existence. Just as people strive to learn about the natural environment, so too do they seek to understand society. The natural propensity for humans to seek uniformity amidst variety (following Hutcheson and Smith) leads them to seek uniformities that may exist in society. From these are established traditions, whose unintended consequences are institutions, which are the attempts to impose regularity and predictability upon social life. A distinction that may be made is that traditions are static while institutions evolve. Traditions occupy an intermediate position between people and institutions. At this point, however, Popper parts company with the Scots of the Enlightenment when he says:[30]

Institutions and traditions have much in common; among other

things that they must be analysed by the social sciences in terms of individual persons, their actions, attitudes, beliefs. expectations, and interrelations.

The Scottish philosophers, including David Hume, did not subscribe to methodological individualism, and rejected the rationalism of their English counterparts such as Mandeville and Bentham, who were writing in the tradition of Hobbes and Locke [31]. While connections are sometimes drawn between Popper's positivism and the work of David Hume, arguably the greatest of the Scottish philosophers, this in itself represents a misunderstanding of Hume.

Problems arise in Popper's regard for science as an internally-driven phenomenon, independent of external factors such as time, location and culture. The treatment of factors as internal or external to scientific inquiry is problematic in that there are varying degrees of internalisation according to the factors concerned, and that there may exist additional variances depending upon the nature of the inquiries. And a simple example of how "external" factors interfere with scientific practice involves the nature of the political regime to which the scientific community is subject. An extreme instance would be the totalitarian regimes which Popper so rightly abhors. Such make it impossible for true scientific inquiry, in the way that Popper characterises it, to be conducted, given the constraints placed upon freedom of expression and the impact this has on discourse. But the institutional factors which drive "normal" science, in the Kuhnian sense, also restrict Popperian inquiry. The critical rationalism which Popper sees as true science is always impeded by institutional circumstances, regardless of political regime.

Also, Popper's well known criticism of historicism would appear to contradict his recognition of the fundamental importance of tradition, although his depiction of historicism as "an approach to the social sciences which assumes that *historical prediction* is their principal aim"[32] is almost universally acknowledged as fundamentally wrong[33]. Unless he argues that tradition derives its importance in ways that as temporally bound beings we cannot understand, the only means by which we can understand tradition is by the retrospective examination of historical events.

Kuhn's[34] notions of paradigms and scientific revolutions addressed the issue of external forces in the development of science. Lakatos'[35] concept of scientific research programmes was offered as a compromise between Popper's falsificationism and Kuhn. The need that these conceptual constructs appeared to answer was the desire of many for a more realistic picture of science than that provided by positivism, already a declining force within the philosophy of science.

Attempts made to apply Popper's methodological prescriptions within economics have had mixed fortunes, and there are few who would do so without reservations[36], although Blaug[37] is an unrepentant Popperian.

The sequential adoption and rejection of first Kuhn's and then Lakatos' frameworks resulted from the desire of many for a conceptual system that recognised the reality of what we have defined as schools and traditions, and the resulting disappointment over the problems of ambiguity posed by each system. Scientists, regardless of discipline, usually work in a community and adhere to certain constituent group norms. Popper, Kuhn and Lakatos belong to what has been termed the "growth of knowledge tradition" [38] within the philosophy of science. This "tradition" grew in response to the difficulties posed by positivism. While Popper was closer to the positivists in that he concentrated on single, testable statements, Kuhn and Lakatos recognised the importance of institutional elements in science.

However, following the initial enthusiasm which both schemes attracted[39], problems with ambiguity arose. Basically, the application of these schemes to economics highlighted what other historians of science had discovered—there was no definitive history emerging as a result of using these analytical tools. Furthermore, each system came under heavy criticism from philosophers of science[40], with Kuhn being charged with relativism, while Lakatos insisted on an internal/external dualism, and the greater importance of internal factors, as necessary to the study of the history of science. There appears to be no consensus either within modern philosophy of science or among economic methodologists. For the moment at least, Caldwell's[41] vision of methodological pluralism appears to be the reality. Much of the

debate in economics has focused on the relative permanence of paradigms or research programmes, i.e. whether or not theory has evolved within longstanding traditions.

In the next section we focus more specifically on an application of the concept of tradition to the Scottish Enlightenment period, and indeed on the light that Smith's philosophy of science can shed on the concept of tradition.

4. Tradition in the Scottish Enlightenment

What we now understand as separate disciplines did not operate in eighteenth century social science and Smith's project was one commanding a far greater area than modern neoclassical economics could ever properly aspire to[42]. The Lakatosian apparatus has been used to support the idea that somehow there has existed from Adam Smith a continuous hard core driving a 200 year old research programme[43]. But the creation of a separate discipline of economics was no part of Smith's agenda. It can only be credited to him as an unintended consequence of his rhetorical flair[44], and the appeal that certain elements of his system had for English theorists. Hutchison describes Smith not as the founder of political economy, but as the source of inspiration for English classical political economy, whose practitioners chose to ignore a substantial proportion of the methodological content of the *Wealth of Nations* [45] Lakatosian research programmes are, in fact, antithetical to Smith's theory of knowledge, which formed a defining element of the Scottish tradition.

Many commentators are agreed that much of Smith's originality lay in his synthesis of existing thought[46]. Examination of the works of his contemporaries offers support for this assessment, which echoes Smith's own assertion that, in order for science to succeed, content is not as important as the style in which it is presented. Here may lie one reason why Smith's work—rather than that of Sir James Steuart, for example—is taken to be the major source of inspiration for subsequent writers in political economy. For Smith, persuasion is the key factor determining the quality of philosophical theory. Good theory satisfies the conflicting demands of "realistic"[47] representation and simplification. Where a theory is too simplistic, or abstracted, then, because of the extent of the difference between theory and reality, it is not clear what it is supposed to represent. Where a theory is too realistic, in that it incorporates so

many variables as to be almost as complex as reality itself, it fails to satisfy the imagination, because of the amount of detail that must be processed.

In articulating his philosophy of science, Smith was in fact assembling ideas from various sources, in particular his mentor, Francis Hutcheson. One of the philosophical inquiries conducted during the eighteenth century, arising from debates concerning human nature, was in aesthetics. In the closely related field of rhetoric, Smith's expertise is acknowledged. Smith regarded science, whether natural or social, as being the fruit of the labours of our imagination—human attempts to connect apparently unrelated phenomena with imaginative constructs, preferably based upon a familiar analogy. For Smith, "philosophy is the science of the connecting principles of nature"[48], arising out of a human desire to settle the tumult of the imagination caused by unexplained phenomena.

Smith illustrated his philosophy of science by charting the history of astronomy , from Aristotle to Newton, via Ptolemy and Copernicus[49]. His choice of subject was quite deliberate, in that by means of a familiar analogy (everyone has wondered at the stars[50]) he can explain the reasons for the existence, the nature and the conduct of scientific inquiry. Thus he is following his own criteria in establishing a philosophy of science, something which neither Popper nor Lakatos appeared to do. In answer to the question 'Why does philosophical inquiry take place?', Smith establishes certain principles (the restlessness of the mind and the dissatisfaction it brings, prompting investigation), and thereafter applies them to a specific example in order to "prove" (or, more accurately, to persuade the reader of) his hypothesis. Smith's use of astronomy illustrated perfectly his argument that simple, familiar analogies work best.

The wonder and surprise occasioned by the observation of the heavens inspired philosophers to study the movements of the stars and attempt to understand them. Thus a succession of systems was created, explaining those observations available to the astronomers. Technological progress reduced the constraints on what the astronomers could observe, and so a gradually widening divergence between a model and reality occurred. Initial attempts made at incorporating the previously unexplained phenomena resulted in reducing the model's simplicity, and thus its beauty, until a stage was reached where the model was

beginning to resemble reality in terms of its complexity. At such points a crisis is reached, and an alternative theoretical system, based upon a different analogy which served to connect the several phenomena, replaces the older theory. In this way Smith could describe the progression from the Aristotelian system of concentric spheres, to Ptolemy's eccentric spheres, the Copernican revolution and finally to Newton's application of the principle of gravity.

An interesting feature of the scientific "revolutions" outlined by Smith is the tendency of some within the scientific community to retain elements of the older system within the new. This is a consequence of human imagination not always being able to adjust easily to new patterns of thought. Thus, for example, the length of time it took for Copernicus' system to supersede that of Ptolemy, and the attempt to merge the two, which Smith agrees was "happier than that of Ptolemy" but more complex than the system offered by Copernicus.[51]

Smith was not operating in a vacuum, and it should be no surprise if his ideas bear some resemblance to those of his contemporaries. While the common features of the Scottish historical school cannot be examined in detail here, it is worth noting here the similarity between Smith's idea of theoretical beauty and the ideas of his mentor, Francis Hutcheson, to whose class in moral philosophy Smith belonged during the late 1730s. Hutcheson had published in 1725 a defence of the Earl of Shaftesbury's treatment of aesthetics, against the opposing views of Bernard Mandeville, who followed in the tradition of Hobbes. Hutcheson argued that humans are endowed with a natural sense of beauty, and that this goes beyond mere vision, and is in fact what he refers to an "internal sense"[52]. While we experience pleasure in the observation of beautiful physical objects, there is "Beauty perceiv'd in Theorems, or universal Truths, in general Causes, and in some extensive Principles of Action", and these are "accompany'd with like pleasure"[53]. Our perception of beauty, for Hutcheson, occurs where we observe "uniformity amidst variety"[54]. This desire for regularity begins in infancy, when our aesthetic tastes begin to form[55].

Hutcheson[56] specifically deals with the beauty to be found in "theorems":

> For in one Theorem we may find included, with the most exact Agreement, an infinite Multitude of particular Truths; nay, often an

> Infinity of Infinites: so that altho the Necessity of forming abstract Ideas, and universal Theorems, arises perhaps from the Limitation of our Minds, which cannot admit an infinite Multitude of singular Ideas or Judgments at once, yet this Power gives us an Evidence of the Largeness of the human Capacity above our Imagination.

What distinguishes the pleasure derived from this beauty is that it is not the consequence of anticipated personal advantage. While Hutcheson does state that "the Importance of any Truth is nothing else than its Moment, or Efficacy to make Men happy, or to give them the greatest and most lasting Pleasure"[57], the pleasure derived therefrom results from the beauty observed in the system representing reality, and not what we might understand to be commodified utility. The pleasure we experience upon witnessing beauty is a natural endowment.

Smith explains the developments within astronomy in terms which indicate his belief that the sum of knowledge increased with every theory shift. The task of each new theory was to explain new facts as well as those which had already been accounted for. However, the ability of philosophers to incorporate as many apparently independent phenomena as possible into their theoretical systems did not mean that the sum total of scientific knowledge increased. Rather, such outcomes were evidence of the ingenuity of the philosophers concerned in building theoretical models of observed events. Smith's own recourse to history in arguing for his model of political economy, for example, together with his view that total knowledge increases with every paradigm shift, suggests a position not so distant from that of Popper, whom D'Amico[58] regards as rejecting a realist philosophy of history. Smith, like Popper, viewed the corpus of scientific theories as a kind of mythology, which nevertheless advanced in an evolutionary manner over time. He differed from Popper, however, in that his ultimate criterion was persuasion, rather than the ability of theories to withstand rigorous testing.

Smith's unique contribution is the recognition of rhetoric, specifically the role of persuasion in the popularity of scientific theories. Perhaps it is no accident of history that today he is still the subject of much invocation and debate among economists, given that one

of the earliest works of political economy was written by such a master of the rhetorical arts. Although not the first to approach the subject, it is a testimony to Smith's rhetorical skills that his work has retained a far greater measure of importance than those of his contemporaries. His ability to appeal to a wider audience attracted the sarcastic comments of Schumpeter[59] who regarded the *Wealth of Nations* as never moving "above the heads of even the dullest readers".

Smith persuaded his readers that they did not have to understand why humans acted as they did as long as they could appreciate the consequences, intended and unintended, of their actions. The *Moral Sentiments* was where they should go to understand Smith's social psychology. *The Wealth of Nations*, which was built on these foundations, was intended for a very different audience, and attracted a much greater following[60]:

> The marked literary superiority of Smith can safely be presumed to have gained him readers who wished to have an acquaintance with political economy but were not interested in digging deep... There existed a ready market for interesting tracts on economics ...In this atmosphere, any work that was well written, easy to read, and comprehensive in the branches of political economy could reasonably expect an extensive circulation.

Thus we see Smith as formulating a philosophy of science which incorporated ideas from the work of his contemporaries, especially Francis Hutcheson. For Smith philosophy is the science of the connecting principles of nature, where apparently separate phenomena are brought together and explained in terms of a few, preferably simple, connecting principles. The success of the theoretical system depends upon its ability to persuade. The idea of tradition in economics, as in any other social science, is something which connects the works of various authors over time. Following Smith, an examination of the development of political economy in Scotland can seek to identify those features which are common to a set of works, and which can provide a means of connecting the apparently separate outputs of different philosophers.

5. Conclusion

We have argued that the concept of tradition is a helpful device for the interpretation of the history of political economy in Scotland. The importance of tradition in scientific inquiry is acknowledged by both Popper and Kuhn[61], but neither sought to expand upon it beyond speaking of a general "scientific" tradition. We would claim that within general science there exist what might be termed sub-traditions, or traditions belonging to discourse communities within the larger scientific world. Popper[62] hints at such a possibility.

We define tradition as those features which, according to the philosophical method espoused by Adam Smith, are common to practitioners of science over a relatively long period. While this does not preclude differing interpretations of the history of thought, or of science generally, it does offer a useful device with which to interpret the past, and comes free of the baggage associated with the familiar treatments of science by Popper, Kuhn, and Lakatos. It enables historians of economics to take account of factors external to the subject (for example, the institutional environment), and it also facilitates the incorporation, or otherwise, of schools of thought within the tradition being postulated.

The task of identifying a separate Scottish political economy tradition must take account of the intellectual climate of the nation, and recognise political economy's relationship to those other fields of inquiry which, in Scotland, also formed a part of 'moral philosophy'. The concept of tradition enables us to go beyond the *ex post* imposition of disciplinary boundaries and examine the evolution of a form of enquiry whose roots are embedded within a particular national culture with its own education and legal systems, and economic institutions and circumstances. Indeed, in using tradition in this way we apply the methods which characterise the Scottish approach to philosophical enquiry.

Notes

1. Versions of this paper were presented at the *22nd Annual Meeting of the History of Economics Society* at University of Notre Dame, Notre Dame, Indiana, June 1995; at the Finnish Post—graduate Programme in Economics Methodology Seminar, Helsinki, June 1995; and at the European History of Economic Thought Conference, Lisbon, February 1996.
2. See Alec Macfie, 'The Scottish Tradition in Economic Thought' *Scottish Journal of Political Economy*, 2(2), 1955, pp. 81-103, Roy Campbell, 'Scottish economic history' *Scottish Journal of Political Economy*, Vol. 23, No.2 (1976), pp. 183-192, Sheila Dow, 'The Scottish Political Economy Tradition' *Scottish Journal of Political Economy*, Vol. 34, No. 4 (1987), pp. 335-48, and Douglas Mair, (ed.) *The Scottish Contribution to Modern Economic Thought* (Aberdeen University Press, 1990), in which the Macfie and Dow articles are reprinted.
3. Mair, *The Scottish Contribution to Modern Economic Thought*, p.(ix).
4. Campbell, 'Scottish economic history', p.183.
5. We accept Dow's list of characteristics as a good starting point for a description of the Scottish tradition.
6. We consider the relevance of the Scottish approach for modern debates on the methodology of economics in Alexander Dow, Sheila Dow and Alan Hutton, 'The Scottish Political Economy Tradition and Modern Economics', *Scottish Journal of Political Economy*, 44(4), 1997, pp. 368-383.
7. Macfie, 'The Scottish Tradition in Economic Thought', p.7.
8. A Broadie, *The Tradition of Scottish Philosophy* (Polygon, 1990), p.30.
9. Karl Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge* (5th ed.) (Routledge and Kegan Paul, 1974), p.121.
10. Andrew Skinner, 'Economics and History: The Scottish Enlightenment', *Scottish Journal of Political Economy*, 12(1), 1965, pp. 1-22, M Brown, *Adam Smith's Economics: Its Place in the Development of Economic Thought* (Croom Helm,

1988), pp.56-58 and Terence Hutchison, *Before Adam Smith: The Emergence of Political Economy 1662-1776* (Basil Blackwell, 1988), p.376.

11. Skinner, 'Economics and History: The Scottish Enlightenment', pp.1-2. It should be noted that Andrew Skinner focuses deliberately on the concept of school rather than tradition, ie on a relatively short-lived phenomenon.
12. As detailed in Hutchison, *Before Adam Smith: the Emergence of Political Economy 1662-1776.*
13. The label 'political economy' was re—introduced in University of Glasgow in the 1940s and is retained as the name of the 'economics' department.
14. John Galbraith, *The Affluent Society* (4th ed.) (André Deutsch, 1985), p.41.
15. Keith Tribe, *Governing Economy :The Transformation of German Economic Discourse 1750—1840* (Cambridge University Press, 1988), p.3, n.6.
16. For example, Bob Coats, 'Is there a "structure of scientific revolutions" in economics?', *Kyklos*, Vol. 22 (1969), pp.289-96, Denis O'Brien, 'The Longevity of Adam Smith's Vision: Paradigms, Research Programmes and Falsifiability in the History of Economic Thought', *Scottish Journal of Political Economy*, Vol.23, No.2 (1976), pp.133-51 (reprinted in Mair, *The Scottish Contribution to Modern Economic Thought*, pp.155-73) and J. Jalladeau, 'Research program versus paradigm in the development of economics', *Journal of Economic Issues*, Vol.12, No.3 (1978), pp.583-608.
17. For example, Mark Blaug,*The Methodology of Economics* (2nd ed.) (Cambridge University Press, 1992), Bruce Caldwell, *Beyond Positivism* (Revised ed.), (Routledge, 1994) and Uskali Mäki, B. Gustafsson B .& C. Knudsen C. (eds) *Rationality, Institutions and Economic Methodology (* Routledge, 1993).
18. Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge*, p. 120.
19. *Ibid,* p.121.
20. *Ibid,* p.122.
21. *Ibid,* p.123.
22. *Ibid,* p.124.

23. *Ibid*, p.125.
24. *Ibid*, p.126.
25. *Ibid*, p.127.
26. *Ibid*, p.129, italics in original.
27. *Ibid*.
28. *Ibid*, p.130.
29. *Ibid*, p.131.
30. *Ibid*, p.133.
31. See Sheila Dow, Hume, Smith and Critical Realism, University of Stirling *mimeo*, 1997
32. Karl Popper, *The Poverty of Historicism* (3rd ed.), (Routledge & Kegan Paul, 1961), p.3, italics in original.
33. D. E. Lee & Robert Beck, 'The Meaning of "Historicism"', *American Historical Review*, Vol. 59, No.3(1954), pp.568-77 and R. D'Amico, *Historicism and Knowledge* (Routledge, 1989).
34. Thomas Kuhn, *The Structure of Scientific Revolutions (*2nd ed., enlarged*),* (Chicago University Press, 1970).
35. Imre Lakatos, *The Methodology of Scientific Research Programmes* Vol.1 (Cambridge University Press, 1978).
36. For example, Terence Hutchison, 'The case for falsification' and J. J. Klant, 'The natural order', both in Neil de Marchi (ed.), *The Popperian Legacy in Economics*, (Cambridge University Press, 1988), pp. 169-181and 187-117, respectively.
37. Blaug, *The Methodology of Economics*, p. (xxiii).
38. Caldwell, *Beyond Positivism*, p.223.
39. For example, Coats, 'Is there a "structure of scientific revolutions" in economics?' and Mark Blaug, 'Kuhn versus Lakatos, or paradigms versus research programmes in the history of economics', *History of Political Economy*, Vol.7, No.4 (1975), pp.399-33.

40. For example Margaret Masterman, 'The Nature of a Paradigm', in Imre Lakatos & Alan Musgrave (eds.) (Cambridge University Press,1970), pp. 59-89 and L. Laudan, *Progress and its Problems: Towards a Theory of Scientific Growth (* Routledge and Kegan Paul, 1977).
41. Caldwell, *Beyond Positivism*.
42. Hutchison, *Before Adam Smith: The Emergence of Political Economy 1662-1776*, p.218.
43. Blaug, 'Kuhn versus Lakatos, or paradigms versus research programmes in the history of economics', pp.417-418.
44. Hutchison, *Before Adam Smith: The Emergence of Political Economy 1662-1776,* p.355.
45. *Ibid*, p.372.
46. For example, V. M. Bevilacqua, 'Adam Smith and some philosophical origins of eighteenth-century rhetorical theory', *Modern Language Review*, Vol. 63 (1968), pp.559-68, Joseph Schumpeter, *History of Economic Analysis* (Routledge, 1954), pp.184-186, and H. F. Thomson, 'Adam Smith's Philosophy of Science', *Quarterly Journal of Economics*, Vol.79 (1965), pp. 212-33.
47. In the sense of 'realisticness' defined by Uskali Mäki, 'On the problem of realism in economics', Ricerche Economiche, Vol.43 (1989), pp.176-198.
48. Adam Smith, 'A History of Astronomy' in *Essays on Philosophical Subjects,* W. P. D. Whiteman & J. C. Bryce (eds) (Oxford University Press, 1980), p.45.
49. *Ibid.*
50. *Ibid*, p.53.
51. *Ibid*, p.83. Smith's treatment of the nature of scientific inquiry is in some respects parallelled in the work of George Shackle Shackle, *The Years of High Theory: Invention and Tradition in Economic Thought 1926-1939* (Cambridge University Press, 1967), Andrew Skinner, 'Adam Smith: An Aspect of Modern Economics?', *Scottish Journal of Political Economy*, Vol. 26, No. 2 (1979), pp. 109-25 and Brian Loasby, *The Mind and Method of the Economist* (Edward Elgar, 1989).

52. Frances Hutcheson, *An Inquiry into the Original of our Ideas of Beauty and Virtue* Volume 1, *Collected Works of Francis Hutcheson*, edited by Bernhard Fabian (Georg Olms Verlagsbuchhandlung, 1971), p.8.
53. *Ibid*
54. *Ibid*, p.15.
55. *Ibid*, p.18.
56. *Ibid*, p.27.
57. *Ibid*, p.(iii).
58. D'Amico, *Historicism and Knowledge*, p.20.
59. Schumpeter, *History of Economic Analysis*, p.185.
60. S. Rashid, 'Adam Smith's Rise to Fame: A Reexamination of the Evidence', *The Eighteenth Century*, Vol.23, No.1 (1982), pp. 64-85
61. Thomas Kuhn, 'Logic of Discovery or Psychology of Research?' in Lakatos & Musgrave (eds.), *Criticism and the Growth of Knowledge*, pp. 1-23
62. Popper, Conjectures and Refutations: *The Growth of Scientific Knowledge*, p.134