Introduction

The British Classical period of political economy, covering the approximately 100 years from Adam Smith to W.S. Jevons, saw the formation of the methodological and epistemological standards to which orthodox economic theory still largely adheres today. What has not been adequately analysed in expositions of this development process is how it was related to the burgeoning philosophy and psychology of human nature of the period. My intention is to argue that this comprises a vital connection which, when elaborated in detail, enables us to account more completely for the dominant acceptance and adoption of that notorious concept and erstwhile bogey of ‘economic man’ as the only representation of the human agent required to legitimate economic analyses.¹ I argue in this paper, as I have done in detail in my forthcoming book (1993), that this is an aspect of Classical methodology that warrants more attention than it has received in the literature to date.

Central to my argument is the claim that the Classical period was characterized by the fact that the most influential political economists distanced their analyses from the complicating methodological implications of contemporary understandings of human nature. The impetus for this retreat came from the widespread conviction that economics should aspire to be a science with characteristics and standards of analysis that emulated those of Newtonian methodology as it applied to the physical sciences. Two things ultimately facilitated the ostensible realization of this aspiration. One was the development of the concept of ‘economic man’ itself, which enabled analysts to isolate and to
operate with only those definitive and reliable facets of human nature and motivation that could be represented by formal logic. The other was the progressive recognition that from amongst the moral sciences of the time, political economy was unique in that its object phenomena immediately presented themselves in exact physical cum quantitative terms. They could thereby be manipulated in analyses in the same way as the natural objects of the physical sciences. Economics was able, therefore, to focus only on the manifested results of the complex processes of human agency. What went on underneath the quantitative surface was irrelevant and quite quickly lost from sight. In particular, this meant that theories could apparently be formulated with only minimal consideration of the problem of representing human agents who, in reality, comprised an infinite number of unique psychological entities, all with their own genetic makeups, cumulative biographies of experiences and current situations. The overwhelming acceptance of theories known to be grounded on such a meagre representation of the most complex of all natural beings, is something which requires due inquiry and explanation.

My study of this historical theme proceeds from a belief that if economics is to be thought of as a science, then it should explicitly be as a human science. Especially does this require a recognition that its 'human' appellation derives from the ontological nature and constitution of its object of study. For whatever else economic phenomena may be, the one irreducible thing that they all have in common is that the character of their existence originates in the choices, decision making and actions of human agents. An immediate question posed by this recognition is the extent to which this ontology should influence the methodological and epistemological aspirations of the human sciences. My presumption in what follows will be that the influence should be a dominant one. Most particularly, methodological choices should be made that can be shown to be consistent with the proper representation of the object ontology. To work the other way around, with methodology driving and delimiting the representation of object phenomena, is to have the cart before the horse, as it were. It will soon become apparent that very early on, political economists effectively denied the chronically human status of their science and adopted this perverse approach. From being a 'soft' moral science, political economy was rapidly transformed into a quantitative, pseudo-physical science. One of the critical consequences of this denial and transformation was the rise to prominence of 'economic man' as the only axiom which allowed the objectively expressed, physical-scientific arguments to proceed.

Human agents, in the economic dimension of their existence, are concerned, directly or indirectly, with the wresting of material provisioning needs from the natural environment. The essence of this process is the physical transformation of selected contents of the environment in a way that must go beyond the mere spatial rearrangement of resources. This is due to the fact that the substantive constituents of raw nature rarely meet directly the biologically and socio-historically determined needs of the human agents, a fact that is complicated further by any problems of scarcity relative to demand that emerge. Because of the need to undertake this transformation, it is appropriate to refer to human involvement in it
as an agency process, for that involvement is one of physical mediation. Additionally, the process includes psychological dimensions that are intimately part of the individual and social composition of the agency concept. For this reason, the phenomena relating to the material provisioning process were originally studied as a part of moral philosophy and later as comprising one of the separable moral sciences. And, as human economic organization became more sophisticated over historical time, the cerebral aspects of the provisioning process increased in importance. This can be attributed to the human ramifications of increasing specialization and division of labour in production, together with the increasing complexity of the income distribution and exchange - circulation institutions and processes required to mediate between production and consumption. Paradoxically, we will find that it was as this increasingly complicated involvement of human agents in economic processes developed that the representation of the human dimension in political economy was being consolidated as the highly abstract and simplified concept of ‘economic man’.

It is an obvious fact of life, but one that is worth emphasising in the present context, that for the vast majority of people, it has always been the case that involvement in the material provisioning process dominates the character of their existence more than any other factor. Not only does it pre-empt a large proportion of their daily time and intellectual and physical effort, but also the mode of their participation in it provides and determines the means they will have available to undertake all other aspects of their lives; that is, to meet all their other desires and aspirations. Thus it is that the economic dimension of human life invokes imperatives that give it a logical and a very real priority over all other aspects. One way or another, the need to be involved in the provisioning process is mandatory for all human agents. Economics is the human science par excellence in this respect.

It is reasonable to expect, therefore, that the form of presentation of economics as a science, in both its methodology and its substance, would give a clear primacy to the need to represent formally the nature of the existence and being of human agents as they are manifested in the processes that generate its object phenomena. That is, to give expression to the ontological nature of these phenomena. The inherent difficulty of this expectation can be emphasized by setting out some of the crucial characteristics of real-world human agents with which any human science should endeavour to deal analytically.

First, human agents are, in an absolute and ultimate sense, existentially free beings who may choose and act in any way that they may wish. In any exercise of this right, they draw upon their constituent innate and learned emotions, sentiments, capacities to reason and accumulated states of knowledge. Their conduct has, as a consequence, an ever present element of contingency. Secondly, in virtually all respects, though, human agents exist, make decisions and do their choosing and acting with some cumulative biography behind them and in some individually particular situation. These individual human exigencies are, for many short-term imperatives, given as inherited from period to period. Their situations comprise a complex totality of human and non-human, natural and artificial,
environmental conditions made up of social, institutional, physical and spatial dimensions. The importance of human situations is that their selectively relevant aspects always serve to contain and/or facilitate the agents' otherwise free decisions, choices and actions. A third consideration is that as human agents are self-conscious and autonomous, they subjectively reason about, interpret and formulate meanings for their situations. It is in response to these considerations that they choose, decide and act in pursuit of their equally subjective preferences and goals. Here we reach a point where the analytical complications of representing human agency really begin to set in. For in addition to these considerations, it must be recognized that the capacity to reason includes the ability to be creative and originating in forming the substantial bases upon which choices, decisions and actions are undertaken. The result is that these agency processes are highly contingent and potentially open-ended phenomena that necessarily involve the metaphysical cum transcendental dimensions of human existence. The latter are beyond the capacities of the human senses to 'observe' in any way other than through personal introspection with all its individualistic overtones. Fourthly, in spite of these subjectivist complexities, within their respective situations, historical observation suggests that agents' individual and decentralized choices, decisions and actions in the social and economic facets of their life-world, pursued more or less freely and guided by their personal self-interest and objectives, generate, reproduce and change a collective cosmos. This ordered outcome, while it is characterized by varying degrees of coherence and stability over time, is somehow preserved from chaotic degeneration by some quality of the reason that the agents bring to their situations and operations. What may be anticipated is that while the agents have little immediate control over their periodically inherited situations, the reality is that when they confront the immanent rules, directions, facilities and constraints that are the institutional manifestations of these situations, they are most frequently inclined to reason that it is in their best interests to co-operate with them. That is, to so orient their conformist conduct as to get the best out of the system for them. Renegades will always exist, but the presence of a core of social and economic order suggests that they are usually in the minority.

The above considerations become pertinent when we press the Classical for an answer to the question: what mode of generalized and abstracted representation of the situated agents and their agency can be defended as feasible and legitimate in the formal analysis of economic phenomena? A further question that follows is: Given the particular nature of its object, what sort of science can economics legitimately claim to be within the totality of the sciences? And, as a matter of potential comparison and contrast, it is appropriate to pose the cognate question: What sort of science does economics claim to have become? The interplay between the search for an answer to the former two questions and the evolving answer to the latter one during the Classical period constitutes the central theme of my inquiries.
Human agency and Adam Smith's methodology

It is well known that from its beginnings as a separate discipline in the eighteenth century, political economy was taken for granted to be an integral part of the total human science of the period known as moral philosophy. Adam Smith had no occasion to question the idea that if one sought to understand the working of an economic system, one would have to begin with as complete an analysis of human nature as possible. He treated it as self-evident that any explanation of economic phenomena should give primary emphasis to the fact that they are the consequence of human action. It followed, therefore, that political economy should be founded on a proper comprehension of what drives the choices, decisions and actions of agents when they engage in economic activities. So it was that Smith’s total project on moral philosophy began with a long inquiry into human nature in general, with the economic dimensions of human existence treated within the framework of analysis so established.

In his theory of the moral sentiments that constitute human nature, in which contact with the realities of character and conduct was never lost, the motive of self-interest was ever dominant. But, its effects were always either tempered by counteracting sentiments, where intersubjective relations had a dominant emotional content, or directed by situational conditions into collective consequences which could, in principle, be optimized, where the relations were functional in their objectives. In the case of economic conduct and relations, the optimal collective results comprised the maximization of the periodic flow of real per capita wealth and of its rate of growth. This reading of Smith’s project opens the way for a demonstration that it was his acceptance of human agency as the root of economic understanding that resulted in his adoption of a methodological strategy with no conscious preconception or dominant direction.

Smith was well aware of the wonders of Newtonian physics and of Hume’s advocacy of the application of Newton’s principles to human science. He drew on the empiricism of Locke and Newton as the most essential of his methodological foundations and envisaged, following Hume, that he would apply something like the Newtonian procedures to a study of human nature and society. His earliest writings began with a critical survey of what we would call the philosophy of science, where his theme was the nature of human inquiry and the construction of knowledge in the physical sciences. (Smith, 1980) Some of the conclusions that he reached in this survey, especially regarding the role of sentiments in the scientific process, the status of systems as the objects of knowledge and the role of the mind in the creation of knowledge, were to provide valuable, if implicit background to the next stage of his study of human nature.

The intellectual context in which Smith carried out his inquiries into moral philosophy was dominated by the egoistic perception of human nature that had been argued by Hobbes and later by Mandeville. Juxtaposed to this stream was that posited by the Sentimentalists who rejected the Hobbesian image in favour of one in which human nature was depicted as innately balanced by other-directed sympathy based sentiments. Smith steered a middle course between these schools
of thought in devising his model of human nature and agency. In his *Theory of
Moral Sentiments*, published in 1759 (TMS; Smith, 1976a), the emphasis was on
clarifying the essentials of human nature which provide an understanding of the
moral situation of agents in society at large. He worked through the sentimental
constitution of human nature and its relevance to understanding the moral character
and conduct of agents in their various life-world situations, relations and actions.
This morality was shown to depend upon a balance between sympathy and self-
interest, an individual balance that is crucial for social cohesion. For, as societies
did not explode into Hobbesian ego driven chaos, it was evident to Smith that some
sympathetic sentiment must be keeping people from destroying each other in the
struggle to maximize returns to their egos.

Smith's inquiries in the TMS largely confirmed the existence of this state of
moral balance. The sentimental makeup of human agents was such as to ensure that
to a significant extent, social harmony and stability could depend upon moral rules
for their maintenance. However, following out the implications of the gravity
analogy as it was argued by Hutcheson and Hume, Smith also accepted the
application of a sort of inverse square rule to the degree of sentimental centripetal
force between two agents as their intersubjective distance increased. For close
relations with family and friends, the intersubjectivity was of a purely sentimental
nature and the moral commitment was a significant binding force. He reasoned,
though, that the sentiment of self-interest was ever present as a dominant
motivating force for human agents and as their relations with others became
increasingly functional and anonymous, and thus distant, the impact of sympathetic
sentiments on their conduct decreased rapidly. The result, Smith argued, was that
societies could depend only to a limited extent on this state of sentimental balance
between self-interest and the counterweights of sympathy towards others to sustain
an acceptable degree of social cohesion. In particular, the relationships that
facilitated the fundamental processes of material provisioning in a world of
specialization and division of labour, operating in conjunction with market
exchange, were characterized by an interdependence of a purely functional nature.
The rationale of those participating was some reciprocal material benefit, with no
expectation of particular sentimental returns. Benevolence and like sentiments had
no role at all to play and some other explanation for the social cohesion of
economically interdependent agents was required.

In the ever present endeavour to improve their material and social positions as
directed by the motive of self-interest, the most immediate concern in situations of
minimal moral responsibility was that one agent should not do harm to another.
The most probable context in which such an ego driven struggle could cause agents
to injure one another was that involving the creation and distribution of material
wealth. For the purpose of preventing inter-agent injury of persons or property, the
sentimental basis of morality required the backup of some system of justice. The
next step in Smith's inquiries was thus to direct his attention to the subject of
Jurisprudence in which, inter alia, the laws and sanctions dealing with the
protection of persons and property were considered. His plan was to write a large-
scale treatise on the subject, but it came to nothing and all that is extant to indicate
what it might have contained are the two sets of student's notes published as *Lectures on Jurisprudence* (LJ; Smith, 1978). It was in this context that Smith first confronted the economic dimension of human existence as a separately identifiable field of inquiry. It soon became apparent to him that in order to account for the observed involvement of human agents in the economic extensions of moral philosophy, more than the driving sentiment of self-interest plus the controlling pressures of justice would have to comprise elements in the construction of the analyses.

In his political economy, as it was argued out in the *Wealth of Nations* of 1776 (WN; Smith, 1976b), Smith focused initially upon the material provisioning imperative as the basis of economic activity and developed his analyses around the impact that this had upon the human agent. During his era, the organization and techniques of production were becoming increasingly technical and the demands on participating human agents increasingly cerebral. The growth of mercantile capitalism had brought with it ever more widespread and diversified specialization and division of labour, supplemented by the increasing use of complementary machinery, as the key to economic prosperity. As Smith emphasized, though, this development was primarily a human process. One of its most important manifestations was an increasing dependence of agents upon one another, consciously or unconsciously, in order to realize their respective provisioning needs. The result was a complex structure of intersubjective economic relations, together with an immanently generated socio-political and institutional structure, founded upon and dedicated to the facilitation of the requirements of the productive system. Smith's political economy was dominated by a devotion to explicating these human dimensions of the organization of provisioning and their ramifications for the material and social welfare of the population.

The consequent intention of the WN was to reveal how the contemporary economy operated as a human system by adapting and extending the theories of the TMS and the observations of the LJ. Primarily, this required a shift of emphasis to one particular facet of human existence, albeit a most fundamental one. Smith's focus was now on a system in which the complex aggregation of individual human agent relations and actions is directed by the physical, social and institutional situations through which they are realized. We should recall that the ultimate purpose of his inquiry into the nature and causes of the wealth of nations was to provide the understanding that would justify and facilitate systemic reform. Fundamental to the relevant analyses in this context was Smith's belief that it was the functional and relational dimensions of the agents' environment that could act to contain and constrain any negative consequences of encouraging and perpetuating the vital mobilizing force of economic self-interest. As he observed the burgeoning system of market capitalism that surrounded him, he found that its situational structures operated to exacerbate rather than mitigate the undesirable tendencies of mass egoism. It had provided a commercial environment replete with opportunities for the collusive pursuit of exclusive material gains by particular economic groups to the detriment of the collective welfare outcome for human agents generally. This overwhelming and unrestrained pursuit of self-interest,
which Smith referred to as the legitimate and omnipotent drive by agents 'to better their condition', was exercised within the systemic situation that we now generally refer to as the Mercantilism. He especially emphasized that it was the material wealth generation per capita, that really measured the potential welfare consequences of production, that was so attenuated by these activities.

The system was characterized by a myriad of formal and informal, de jure and de facto, impediments to the free and natural operation of the markets of the capitalist economy. In particular, manufacturers and merchants had engineered a network of economic structures and institutions by manipulating the political system on the basis of the successful promotion of a false doctrine about the nature and causes of the wealth of nations. These constructed interventions in the economy were designed to ensure that the mercantile agents accrued a degree of monopoly power over their trading environment which promoted and secured their specific interests to the maximum possible extent, independently of the individual and collective consequences for the material welfare of others. Smith argued that it was the false and misleading mercantilist economic theory, so effectively used as the basis of pamphlet and other propaganda, which persuaded parliamentarians over the years to encourage the evolution of the system. Its negative economic consequences included the reduction of aggregate wealth production below its potential, or natural, level, by distorting the distribution of resources, the distortion of the distribution of the realized outputs away from that considered to be socially optimal, and a reduction of the rate of growth of real wealth below its inherent potential.

The 'ideal' model of market capitalism as it was constructed in Books I and II of the WN, was presented in a logical form that derived from the emphasis Smith put on the essential role of human agency in the generation of its object phenomena. Political economy was a moral science concerned with a crucial and major part of the total life-world and activities of human beings, as they are in observed reality. In this context, he chose to give heavy emphasis to the pursuit of self-interest by individual agents as the one dimension of the human character and conduct that he found to be empirically pervasive and the most relevant. Any intellectual representation and consequent understanding of economic phenomena had to be seen to be consistent with the self-interest premiss. Smith's analyses gave the impression that this premiss was to be considered axiomatic, but its status was far from being simply a priori, as it had been shown to be logically connected with the total image of human nature worked out in the TMS and was consistent with what Smith believed he had observed as underpinning the operations of the Mercantilist system.

As far as Smith was concerned, the empirically observed economic system was able to be reduced by a process of carefully selective simplification to an essential and minimal logic of structure and operation. In this model context, the pursuit of self-interest by individual human agents could be shown to result in the maximum per capita production and growth of material wealth. In adopting this procedure, it was not his intention to apply an abstract methodology in any a priori, axiomatic form. The assumptions from which he argued, especially those relating to human
agents and agency, were to be derived by means of observation and introspection. For the purpose of modelling this abstracted ‘ideal’, the operation of the markets through which resources are directed to input sites and commodities are distributed to consumers had to be the manifestation of the choices and actions of free and independent agents acting purely in their own individual self-interest. The mobility of resources and commodities was assumed to be unimpeded and there was fully effective competition between the agents in all markets in which they participate. Under these conditions, commodity prices, along with the incomes of all agents with some claim to share in the revenues generated, by virtue of their function in the social organization of production, would all ‘gravitate’ to their natural levels by means of the ‘invisible hand’ of competition operating in either the static or dynamic context. For Smith, then, it was this free-market, effectively-competitive capitalism which represented the ‘ideal’, and natural, version of the extant Mercantilist economy. It might be added here that he realized quite clearly that this model was of a limited epistemological status. It could not be subjected to any direct test of its veracity because it had no empirical manifestation. Even were it to be effectively implemented as the result of a reform process, its actually observed operations would always be complicated by the existence of ‘disturbing causes’.

The theoretical process by means of which the ‘ideal’ had been exposed was to be replicated in practice as far as actual conditions would allow. Ultimately, it was Smith’s intention to argue that the forces distorting the existing system could be emasculated by the removal of their institutional supports. The reform process which was to be implemented was shown to be predominantly non-constructivist in nature. He posited the argument that the renovated system should be consistent with the previously established immanent logic of the extant, but distorted version of itself. That logic, he envisaged, was to be made operationally effective by the removal of distortions rather than the addition of anything. Smith had no delusions that he could be an effective ‘man of system’, setting out to show how to construct a new political economic order: he was no revolutionary in this respect. The ‘system of liberty’ was, for him, a natural state in which the contemporaneously constructed elements of intervention were able to be at a minimum, especially in the economic life of individual agents. The reforms would leave the inherent character of agents as they are within the system, but contain and redirect their voluntary actions so that collectively they optimize its material potentials.

The one thing that is evident, as far as we are able to tell from the construction of the argument of the WN, is that Smith put its empirically oriented requirement before any preconceived demands that particular epistemological expectations or methodological conformity may impose upon the exposition. There was simply no hint of such dogmatism anywhere in his writings. The pluralist tenets of methodology which guided the construction of the WN were permitted to vary from time to time in accordance with the demands of the particular analytical object in focus and the expositional objective that Smith was seeking to achieve. Throughout the WN, there was no endeavour by Smith to introduce a strictly ‘one-dimensional’, perfectly rational and egoistic, maximizing human agent as the sole economic decision maker and actor. In order to support a purely axiomatic
deductive methodology, this would have been the most tractable assumption to adopt, so that the human-behavioural facet of the logic of any argument was uniquely directed and wholly reliable. That is, the human agency in the analysis would appear as merely a behavioural equation or an objective function with a mechanistic form. There is little indication that Smith would have found such a naively rationalistic model of man congenial as a representation of human agents, even in those parts of the WN where his methodology came closest to using deductively reasoned logic to develop the 'ideal' version of the economy. It is, as a consequence, quite inaccurate to read into Smith's argument any methodologically preconceived model of the human agent along the lines that would ultimately be taken in formulating the concept of a 'Classical economic man'. The agents represented in all of Smith's economic analyses were characterized by a complex of active attributes, with the effect that their egoistic pursuits in endeavouring 'to better their condition' were tempered from the outset. Their conduct was always contained and directed by the competitive market situation, backed up by an effective system of justice, in which they were conceived to operate.

So it was, then, that even in the use of what most approximated the deductive methodology, Smith remained conscious of the complex nature of the origins in human agency of even the abstracted versions of capitalist phenomena. The outcome of this was a quite 'soft' deductively logical form of argument in which there was no attempt to tie the conclusions uniquely to the rather loosely expressed premises. Indeed, throughout much of the WN, the methodology was intentionally historical and empirical, although it should be added that there is no evidence that Smith considered that he had derived any generalized conclusions in the sense that a strictly demonstrative inductive logic would demand. He was not an historicist in this sense. His application of the historical methodology in the WN was confined to eliciting a descriptive representation of the evolution and contemporary character of the mercantile economy, especially in Books III and IV. The objective in these parts of his exposition was to establish the empirical form of the system of manufacturer and merchant privilege and distortion that was to be the target of his reform programme. In sum, the WN was characterized by a low degree of conscious penetration by the methodology of the burgeoning physical sciences. Their impact was confined to the principles of empirical observation and the representation of phenomena as systemically organized. Smith applied a mix of inductive and deductive technique in his analyses, with the shifting emphasis being in accordance with the singular requirement that his explanations and exposition should be clear and cogent. Sometimes this meant adopting an approach comprising the simplification of observations and subsequent deductive argument, at other times the need was for empirico-historical description and consequent limited inductive generalization. The significant point here is that for Smith, it was always accepted that the way to approach explication and understanding was to let the ontology of the generation and character of the object determine the logical form to be taken by the argument.

The priority that I think it appropriate to give to human agency in understanding Adam Smith's political economy has been recognized by a number
of scholars. Some have also considered his analytical representation of such agency and reached what I judge to be the correct conclusion that Smith gave priority to ontological rather than methodological preconceptions in his theoretical formulations. In particular, it has been widely accepted that he did not have a role for an 'economic man' concept anything like that which emerged later in the Classical era. Furthermore, it has been recognized that he adopted a pluralistic methodological strategy, selecting that which was most appropriate for the nature of the object in focus from time to time in his work. Consequently, he is usually said to have left an ambiguous methodological legacy. What has not been accorded due weight in much of this Smithian scholarship are the connections between his careful explication of the nature of human agency and the problem of formulating a consistent, albeit implicit, methodology for political economy. It is important to stress for the purposes of developing my theme that there is already in the extant literature a certain general message about and acceptance of the primacy that should be given to individual human nature and agency in the economic methodology and analysis developed by Smith.\(^2\)

This emphasis upon the importance of human agency in Smith's thought is reinforced by the attention that has been given in the literature to how he represented agents in his analyses. The consensus now is that his view of the human agent was in fact a description of agents much as he must have known them to be. Thus it is quite incorrect to believe that Smith had as his view of the human agent an abstraction anything like the 'economic man' who is bound to pursue his self-interest to the exclusion of all other considerations.\(^3\) Further to this, it is important to recognize that a key aspect of Smith's representation of human agency in the WN was characterized by the displacement of sympathy based sentiments by the situational environment as the decisive force which restrains self-interest. The conduct of human agents, therefore, was argued to depend on the interaction between individuals and the institutions and other conditions which comprise the economy and society in which they live. The highly significant point made here is that it is the situation confronted by agents which affects the dimensions of their psychological and behavioural profiles to be given emphasis in any theoretical representation.\(^4\) In this respect, Smith was well aware that the actual conduct of human agents, especially the scope for and form of their egocentric actions, along with their sentimental concerns about the consequences for other agents, were very much the product of the system in and through which they operate. He may quite correctly be said to have had an environmental approach to self-interest and its impact on agent conduct. So, self-interest became for Smith the determining motive as far as the economic conduct of agents was concerned, indeed it may well be labelled Smith's 'fundamental axiom'. Such a claim should be situationally qualified and understood because the scope for the exercise of the various components of self-interested motivation depends crucially upon the institutional and conditional framework in which they are situated. Quite evidently, the conclusion that Smith went a considerable way towards defining the interrelationship between the environment and self-interested behaviour is well justified.\(^5\)
Smith avoided the extremes of individualism in his epistemology and methodology as a consequence of this representing human agents as affecting and as being affected by their situations. That is, he rejected the idea that the evolved rules of moral and economic conduct, according to which agents direct their actions and enter into relations with others, can be reduced to or can be deduced from mere laws of the nature of individual being alone. At the same time, Smith kept his distance from any suggestion of the other extreme of methodological holism. There, economic and social systems are represented as organically structured and functioning wholes, in which the constituent agents can be observed to operate entirely in accordance with their positions within the structures and functions of which the whole is composed. There was, as we saw above, a definite organic aspect to his economic and social analysis in that agents were depicted as creatures of their environment who function in accordance with its demands. But, the critical point to be emphasized is that they did so as self-conscious beings with an individual identity and an ultimate existential autonomy. In struggling with this juxtaposition of the individual agent’s autonomy and the collective conformity evident in the phenomena of human agency, Smith was confronted with an object of study which presented methodological problematics that cannot affect inquiry into physical phenomena. It is this important message that has generally been lost sight of in the evolution of orthodox economics as a result of the subsequently dominant desire amongst mainstream economists to satisfy their physics-envy.

Endeavours to come to grips with the methodological legacy left by Smith have a long history. One matter of concern has been the extent and nature of his use of abstraction in theory construction. The most apparent aspect of the WN as far as this issue is concerned was Smith’s lack of any conscious attempt to formulate abstractions at all. There was simplification from detailed description in order to facilitate deductive reasoning, but contact with the original observations was carefully maintained. This was especially so where Smith provided some representation of the character and conduct of human agents. His emphasis on self-interest as the critical motivating force of agents was always firmly embedded in the particular situational environment which could account for its consequences. In this sense, the simplified model of human agency was never allowed to approach the degree of abstraction that would have been involved in an ‘economic man’ concept. Even in those parts of his work where the argument bordered on the more or less speculative, Smith never strayed too far from contact with the empirical source of his premisses.

The WN was a work replete with historico-empirical facts and its composition involved the careful weaving together of factual exposition and related theoretical argument. When some formal point was to be made, he used simplified actual cases or circumstances rather than abstract hypothetical models to construct his argument: an example of this was the use of the pin manufactory to model the concept of division of labour, although it is a moot point whether or not the reality of this example was observed first hand. Similarly, his economy is populated by ideal type categories of human agents, each firmly attached to their empirical functions as well as to their more general natures, rather than by the purely
rationalistic and homogeneous 'economic men' demanded by a strictly axiomatic-deductive methodology. That is, for Smith, the conception of the human agent in political economy was not derived from the methodological requirements of deductive procedures alone. Rather it reflected his belief about the actual characteristics of their nature that were functionally pertinent to understanding the phenomena at issue.

On the subject of Smith's specific use of methodological strategy, it is quite apparent that he moved between formal, deductive and informal, historical reasoning as the occasion appeared to require. Some Smith scholars with an interest in matters methodological have found that this dualism reflected an highly skilled seminal response by him to a complex set of issues. However, this sort of insightful balance has not always been evident to other scholars and some reached the conclusion that Smith's approach lacked a sufficient historical consciousness and relied heavily upon deductive modes of argument. That is, in effect, Smith was credited with first bringing the deductive methodology to political economy. At times, too, he has been saddled with initiating the approach in its a priori axiomatic form, in which the assumptions made were drawn from introspection and abstracted generalizations. The deductive reading of Smith's methodology albeit without any a priori inferences about the representation of human agents, has been taken up and staunchly defended in recent years by Samuel Hollander. His view is that: 'It was, in fact, Adam Smith who, recognizing that the induction of unique cause-effect relations is all but impossible, provided the archetype of "abstract" theorizing for the nineteenth century.' (1985, p.3) In political economy, Smith was staunchly empiricist, but he rejected the use of 'direct induction from the data as a means of discerning causal linkages', recognizing that because of 'their complexity, the appreciation of causal linkages was possible only with the aid of deductive theory.' (Hollander, 1987, p.319)

In summary, the legacy which Smith left for his successors in political economy to work on was one in which logical and substantive priority was given to the fact that it is a human science. The centrepiece of his argument was, therefore, the character and conduct of situated human agents as the generators of economic phenomena. To a significant degree, the dimensions of the total psychological constitution of agents pertinent to an understanding of these phenomena were circumscribed by the nature and institutional environment of economic activity. Smith's consequent focus on the egocentric motivation and conduct of agents in the WN can thus be shown to be empirically defensible and logically prior to any considerations of scientific methodology. For Smith, the methodology appropriate to political economic analysis had to be that which was consistent with the preservation of ontological integrity in the representation of human agency as the origin of the phenomena to be explained. The result was a variegated methodological strategy which ranged between the relative rigour of abstract-deductive reasoning and the more descriptive empirico-inductive mode of exposition. His successors largely judged this to be an ambiguity to be resolved by means of defending one end of the spectrum or the other. In the next section, I will briefly consider the rise to dominance of the abstract-deductive methodology in
political economy and its profound consequences for the representation of human agency in the construction of theoretical argument. Of particular concern will be J.S. Mill’s reactions to these developments.

Classical methodology and J.S. Mill

Some of Smith’s most important successors in political economy did not continue to see his mixed methodological strategy as appropriate to the creation of a discipline with claims to scientific bona fides. So it was that soon after the turn of the nineteenth century, the science was beset by a methodological self-consciousness that was driven by the epistemological ambition to emulate the physical sciences. Physical scientists could demonstrate an empirical accuracy and logical security for their arguments and it was these achievements that James Mill and David Ricardo set out to claim for political economy. The effect was to turn the methodological imperative driving economic analysis on its head. Although Smith had given priority to the maintenance of empirical accuracy, he had not been concerned about the precise logical form in which his arguments were presented. James Mill’s demand for logically exact argument, and Ricardo’s genius for delivering it, shifted the immediate imperative in the design of political economy from providing for empirical accuracy to ensuring consistency with the principles of axiomatic-deductive methodology. It was now methodological predilections and ambitions that were driving economic analyses and the representation of the object phenomena was moulded to fit the demands thereof by whatever degree of abstraction from reality was required.

For better or for worse, economic phenomena turned out to be peculiarly suited to the application of this methodological inversion. As I noted in the Introduction above, the status of self-interest as the most essential and dominant motivating force of human agents in their economic actions was readily converted to the unqualified axiom of ‘economic man’; and just as importantly, the manifestations of such phenomena were immediately in quantitative terms, terms which were able readily to be expressed in deductive logical sequences and thus to give an impression of precision as great as that expected in mechanics or astronomy. Use of the ‘economic man’ concept represented human agents in a way that rendered their conduct as single-minded, reliable and predictable. Contingent dimensions of conduct were relegated to a second tier of inquiry that could legitimately be left away in establishing the essential principles of political economy. This legitimation was grounded on the widely held belief that in their concerns with matters economic, human agents really did operate exclusively so as to maximize individual material wealth and to minimize pecuniary and non-pecuniary costs. This whole strategy of designing economic analyses on the foundation of the axiom of ‘economic man’ and through the application of strictly quantitative deductive logic gave them an air of unqualified veracity. In the public pronouncements of economic arguments, the ‘disturbing causes’ of contingent human actions were readily ignored in the interests of maintaining scientific pretensions.

It was into this intellectual tradition that John Stuart Mill was inculcated under the exclusive tutelage of his father James. He started out as a defender of the
‘Ricardian’ faith in all its dimensions, but his subsequent intellectual career led him increasingly to deviate from these principles. Nowhere did this occur earlier and become more evident than in the matters of the application of the abstract-deductive methodology as exclusively appropriate to the moral sciences and the consequent adoption of ‘economic man’ as the sole representation of the human agent in economic argument. The earliest inquiries by Mill into the methodology of economics came in his essay of the 1830s which in its 1844 version carried the title ‘On the definition of political economy and on the method of investigation proper to it’. (DPE; Mill, 1967, pp.309ff.) What is most significant about this work is that Mill indicated by his approach that he was intuitively aware of an important methodological strategy. He apparently realized that the correct order of presentation of his argument was to define the nature of the phenomena with which the science is concerned and then to establish the methodological principles that could be shown to be logically consistent with the demands of that definition. The DPE essay was effectively divided into three logically sequential sections. The first considered the issue of defining the nature and scope of political economy. Secondly, this definition was shown to involve a specific representational treatment of the human agents whose conduct forms the substance of economic activity. Then, finally, as a consequence of the definition having been established on the basis of the ontological nature of the phenomena with which the science is concerned, the methodology ‘proper to it’ could be considered in the light of the received orthodoxy. Especially were the epistemological expectations appropriately associated with its explanations thus shown to be sensitively dependent upon the fact that the object phenomena originate in situated human conduct. Understanding the phenomena of political economy required the explicit recognition that they are the results of the choices, decisions and self-conscious actions of human agents going about the most fundamental and dominant of their life-world tasks, the satisfaction of material needs manifested as wealth. Their conduct was to be perceived as chronically dependent upon their inherited situational context, including their social-functional relations with other agents and a host of institutional entities. Thus, in this early essay, Mill posed for himself some acute methodological concerns about the appropriate mode of theory construction and testing in the human sciences. The example of political economy as one of the most formally developed and influential of those sciences at the time served him well as a means to establish the objectives of his more general inquiries into logic and methodology that he had been working on at the same time. These inquiries were to be brought to fruition in A System of Logic that appeared in 1843 (SOL; Mill, 1973), with its wide ranging coverage of methodological issues in science, including the human sciences.

Having critically assessed the methodology of what had become the orthodox political economy of his age, Mill embarked on an ambitious endeavour to assess its legitimacy and adequacy by means of a comprehensive investigation of the extant character and composition of the logic of science. It became apparent to him in the process that the key methodological issue with which all moral sciences had to contend was that their phenomena were of human origin. They were thus distinct
from the physical sciences in at least this respect and the challenge was to assess the implications this had for their ‘correct’ methodology. This led him back to the approach adopted by Adam Smith in which selection of a valid methodology was decided by the criterion that it be the most consistent with the meaningful representation of its object phenomena. Mill was convinced that human sciences in general, and political economy in particular, could adhere to the principles of scientific logic, albeit in a form suitably adapted to the demands of its objects of inquiry. His sanguine espousal of the logic of the physical sciences as pertinent to the human-social sciences, considered in relation to the general objective stated above, came in Book VI of the SOL, which carried the title ‘On the Logic of the Moral Sciences’. (Mill, 1973, pp.831ff.) In order to comprehend the significance of the developments in this logical inquiry, it should be recognized that there was a shift in Mill’s position on methodology between the DPE and the SOL brought about by the extension of the scope of the relevant object phenomena of the human sciences allowed for in the latter. While it is true that the two works were contemporaneously published, it is apparent on a careful reading that their particular substantive, and thus methodological, perspectives made them different rather than inconsistent. The DPE could have been expected to provide only partial bases for the expansive social and economic inquiries that Mill was soon to embark upon, and Book VI of the SOL became the methodological bridge from the earlier to this later work. The most important consideration in the need for the bridge was the failure of the concept of ‘economic man’ to represent adequately the situated human agency around which Mill was to build his political economic analyses. Once he permitted the object ontology to direct the choice of methodology, he could not sustain the orthodox Classical position.

An immediate outcome of his investigation of scientific logic was a recognition that there existed an essential incompatibility between logical precision and empirical accuracy in all human science analyses. Especially was this so in political economy, whatever its claims to the contrary, with the most significant evidence of the difficulty being the failure of ‘economic man’ adequately to represent the true nature of human agents. The retention of a logic with scientific validity called for a compromise and Mill found it by rendering political economy to be an ‘inexact science’. Its deductive methodology had to work from empirically sound axioms derived from observation and introspection, and its conclusions, together with the understanding and facility for prediction that they delivered, could only approximate their object reality. Such a position left economic theory and calculations as merely very complex examples of those worked out in the physical sciences. Mill drew the analogy of tidology as the epistemological target for economic analysis to aim at. It, too, experienced intractable degrees of difficulty in getting its explanations and predictions right, in particular because the interactions of lunar gravity and the oceans were subject to the ‘disturbing causes’ of a diverse and ever changing complex of local conditions. There remained, though, a sufficient core of reliable analysis to allow a useful degree of understanding and predictions of the tides. Political economy was in a similar position, Mill reasoned.
Mill’s economic magnum opus, the *Principles of Political Economy with Some of Their Applications to Social Philosophy* of 1848 (PPE; Mill, 1965), perhaps not unexpectedly in the light of the foregoing observations, reflected a mix of methodological characteristics. The treatise went well beyond its ‘Ricardian’ roots both methodologically and substantively. When Mill looked back on the success and influence of the PPE, he attributed these outcomes to the intentions of the work so clearly expressed in its title. Its merit, he claimed, was that ‘it was not a book merely of abstract science, but also of application ....’ The success was also, he continued, due to his consequent treatment of the subject as ‘... not a thing by itself, but as a fragment of a greater whole; a branch of Social Philosophy, so interlinked with all the other branches, that its conclusions, even in its own peculiar province, are only true conditionally, subject to interference and counteraction from causes not directly within its scope ....’ (Mill, 1981, p.243) In particular, Mill felt that he had extended the scope of the ‘Ricardian’ orthodoxy just sufficiently to keep his analyses in contact with the real contingencies of human agency and their role in generating the economic processes which were of concern to him.

A key challenge that Mill faced up to in the PPE was to provide an up-to-date and policy relevant version of ‘Ricardian’ economics, with a clear orientation towards a better understanding of human problems in the real world and of the potential means for their correction. He hoped thereby to enable this version of the science, in which he retained an essential faith, better to resist the onslaught of theoretical and practical, academic and humanitarian, dissenters. They had variously labelled it as methodologically unsound in its neglect of inductive foundations, as too abstract to be useful, as morally insensitive and inhumane in its defence of laissez-faire and the status quo of economic distribution, and as subversive in its representation of an immanent logic of class conflict. (cf. de Marchi, 1974, pp.121-2, 123ff.)

This effort to renew the respect for political economy involved Mill in broadening the methodological approach to, and downgrading the epistemological expectations then associated with, the science in its narrow ‘Ricardian’ form. He did so as a direct consequence of his expanding on the importance of the human dimensions of the phenomena to be understood. Mill wanted to show how to extend the rigour of the ‘science’ to provide the positivist intellectual bases for the humane ‘art’ of economic reform, an intellectual need that was made apparent to him by the analytically loose and unsound discussions of economic and social concerns which he felt surrounded him. A particular reflection of this endeavour was that in its whole argument, there was nothing in the PPE to parallel the abstract and decisive logic of Ricardo’s published analyses. Moreover, there was no dependence on a strictly circumscribed ‘Classical economic man’ in its representations of human agents. Quite consciously and unashamedly, Mill had set out to emulate and update the achievements of Smith in the WN by blending theory with historical inquiry and with its application to the formulation of policy. The methodological strategy of the work was pluralistic in ad hoc response to the shifting demands of properly representing his various analytical objects. The conduct of human agents was portrayed as determined by the situational conditions
in and through which they operated, although in the end, the full import of this insight was never realized because it was left without its intended theoretical support from the science of Ethology; that is, the science of the situational determination of the developing character and conduct of human agents. Ultimately, he left his successors in much the same position as Smith had done. He wrote the dominant economic text of his age, but his readers were presented with no definitive conclusion about the 'correct' methodology to be applied in the further development of its analyses.

It is apparent that in the analyses comprising those aspects of Mill's PPE which he, himself, considered the most important, his conception of human agents went well beyond the scope of the objectively constrained exigencies of 'economic man'. The immediate consequence of this was that the methodological nature of his argument could not be contained within the bounds of a rigorous abstract-deductive logic. Whatever he continued to believe about the status of 'pure' political economy as a science, in which objectivity and logical precision were able to be sustained, it is certain that for Mill, its analyses could never be ends in themselves. He realized that the type of events and phenomena with which he was to deal as a socially concerned economist involved dimensions of human agency which could not be represented only as the isolated pursuit of maximum self-interest and pecuniary returns at minimum cost. All agents operated in and through particular situational environments which shape and direct their character and conduct in various ways. It followed that a fuller understanding of economic matters as the consequence of human agency would have required at least the integration of a properly developed ethological theory into political economy. Mill gave no explicit expression to this need, and made no further endeavour to work up the appropriate theory, even though it turned out to be the very foundation required for his reformist arguments to be analysed fully. The consequent hole in his explication was enlarged further by the fact that he made no effort to probe beyond the empirico-behaviourist principles of associationist psychology. These principles remained intact even after he was led to grant in his later confrontation with metaphysical philosophy that there was a transcendental dimension to human nature in which the ultimate explanation of decisions and conduct was to be found. I will return to this latter point in a moment.

As mentioned above, Mill left a legacy that put his successors in an indecisive position concerning the proper analytical approach to economics. His only methodological exposition taken up readily by those concerned with matters economic was that in the DPE essay. This was a piece which could be read as merely defending the 'Ricardian' orthodoxy. He had clearly not intended to convey such a view, as certain, perhaps more subtle, aspects of the DPE and Book VI of the SOL attested. However, it was evident to readers of the PPE that its methodological strategy involved a shifting range of approaches, some of which deviated from the narrow scientistic setting in which substantive theoretical arguments were usually found. The most evident contrast between the methodology argued in the DPE essay and Mill's practice in the PPE was that in the former, the conception of 'economic man' was the focus of much of his
argument and he gave the impression that it was a vital component of it. In the latter, the concept had virtually no role and the representation of human agents was on a much more realistic basis with moral and situational conditions allowed to influence conduct.\textsuperscript{17} There can be little doubt that the PPE could have set out from the sort of methodological position found in the DPE, but the intervention of the SOL research drew Mill's attention to the need to qualify that approach more decisively when considering the application of 'pure' economic theory to real-world problems and policies.\textsuperscript{18}

There is some agreement that there was a strong link between the DPE and the SOL, but some scholars have continued to emphasize the lack of any apparent connection between the methodology of the SOL and what was applied in the PPE. The fact is that the economic treatise contained neither an explicit discussion of methodology nor any reference to the SOL in defence of its implicit approach. The situation was as if Mill wanted to avoid stressing any connection between what he was doing in the two works. There are, indeed, good grounds for such an interpretation, albeit with some qualification. First, it seems correct to me to maintain that Mill's methodological principles, within the bounds of their own limitations, were consistently applied. It is all-important, though, to recognize that he made allowances for the changing nature of the various object phenomena dealt with in the PPE by shifting the methodological emphasis away from the kind of premises and argument that were given prominence in the DPE with its more limited objectives of scientific inquiry. Secondly, there is the irony that it was probably for the very reason that Mill was all too well aware of the actual ramifications of the relationship between the SOL and PPE that he avoided making it explicit. The missing link of a theory of ethology threatened to bring any such attempted articulation between the two works undone. Without the means of formalizing the interaction between the character and conduct of human agents and the multiple dimensions of their situations, he had no way of extending the deductive arguments to an understanding of more and more complex economic phenomena or to setting down how they could be modified in the desirable direction by policy interventions.\textsuperscript{19}

The pity remains, though, that Mill felt unable explicitly to carry forward the full power and scope of his expansive and pluralistic methodological insights into the PPE. We can only speculate that he felt the need of the Ethology most acutely in the transition from the abstract to the real world and decided to leave his readers to pursue his varied methodological intentions as best they could, if they were concerned to do so at all. It would have been apparent to those conscious of such things that the PPE had no monistic methodological character. As was the case with Smith's WN, Mill appeared to have no compunctions about shifting between methodologies when he felt it in the interests of empirical accuracy, clarity and persuasiveness of argument to do so. Quite evidently, he felt that having understood properly the source of economic phenomena in the contingencies of situated human agency, he was then not prepared to ignore real-world issues which concerned him just because, for this reason, they could not be readily moulded to fit scientific criteria.\textsuperscript{20}
The later years of Mill’s intellectual career were marked by an ever more decisive retreat from the defence of deductive methodology, even in its most fully qualified forms. He moved increasingly away from any explicit defence of the orthodox version of political economy associated with his father and Ricardo and found much to support in the work of the historicist T.E. Cliffe Leslie. During the period of the declining influence of ‘Ricardian’ orthodoxy in the 1860s and 1870s, Mill, too, became increasingly sceptical about its methodological, theoretical and applied bona fides. It is an irony, too, that was probably not lost on Mill, that the part of his treatise in which his economic heritage was reiterated, the part that he thought of as comprising the least important of his contributions, became the part which made him most famous.21

To an extent, this disillusion with orthodoxy was, for good reasons, methodological. He felt sorely that the ‘Ricardian vice’ was ever present in the actual uses to which political economy was applied. In an article of 1870, dealing with Leslie on the Land Question, Mill took the opportunity to berate the ‘routine school of political economists who have mostly had things their own way ... [and] who share the common infirmity of liking to get their thinking done once and for all, and be saved all the trouble except that of referring to a formula.’ This group he found to wield ‘a set of catch words, which they mistake for principles -- free-trade, freedom of contract, competition, demand and supply, desire for wealth, &c. -- which supersede analysis and are applicable to every variety of case without the trouble of thought.’ (Mill, 1967, p.671; quoted by Hutchison, 1978, pp.63, 64) By contrast, Mill stressed the need to realize ‘that general maxims should be helps to thought, not substitutes for it.’ (p.672)22

Of course, the fact that economic argument could be so readily reduced to set formulae was attributable to those characteristics of political economy which were the very basis of its claims to be a science; that is, to its dependence on the concept of ‘economic man’ in combination with the methodology of abstract-deduction. This was a situation in applied economics for which Mill certainly could not have been held responsible with any justice. As we have seen, the methodology of the PPE was such as to ensure that the transition from the analyses of ‘science’ to those of the ‘art’ was not taken for granted. Indeed, it is not too much to say that his concern to make explicit the nature and limits of this analytical transition comprised the raison d’être of the work. He wanted to see political economy set for itself epistemological expectations that were at most akin to those of the inexact physical sciences, but preferably that accepted the particular problematics of representing phenomena generated by human actions. He came to feel quite acutely the methodological frustrations that flowed from his exposure to representations of human agency as objective functions.23 Political economy generally, and indeed Mill himself in a much more self-conscious and tentative way, had avoided facing up to the matter of designing a proper analysis of human agency by means of the device of ‘economic man’. Moreover, orthodox economics went on to erect its ever more sophisticated and mathematically rigorous analyses on the very basis of it. Quite contrary to the final direction of Mill's own thinking on the issues of human agency and methodology in the human sciences, this
enabled economic theory in the hands of his most influential successors to return to
the principles of deductive stringency with a vengeance.

Mill's uneasiness about the methodological principles for the human sciences
that he had espoused increased all the more as a consequence of the critical attack
that he launched on the metaphysical philosophers around him. His intention was
to discredit their socially conservative doctrine and to consolidate his own, more
liberal argument that the character and conduct of human agents should be
accounted for by biography and situational environment rather than by innate
psychological determinants. In his critique, he was forced to confront, and came to
accept, the fact that the empirical observation of human conduct, including his own
personal introspections and the extrapolation of their revelations to others, always
left a transcendental remainder of psychological effect. Explaining this effect was
beyond the reach of the instruments of intellectual inquiry and representation, for it
was directed largely by the forces of origination and creativity that are constituents
of the human imagination. These forces could be expected to have a contingent
effect on individual responses to situations that could, therefore, not be represented
analytically or understood within human science at the time. Mill's final
resignation to the existence of what we would now refer to as a phenomenological
dimension of the determination of human conduct was indicated when he referred
to it as the 'final inexplicability ... [of] ultimate facts' about which 'by far the
wisest thing we can do, is to accept the inexplicable fact, without any theory of
how it takes place ...' (Mill, 1979, p.194) In the end, then, Mill implicitly accepted
that the phenomena of the human sciences were of a different ontological nature
from those of the physical world. He made nothing of it explicitly and, anyway, by
this period of the latter half of the 1860s, his capacity to influence the development
of methodology in political economy had waned and his further philosophical
writings had no impact in that direction.

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The need for compression has meant that I have resorted to an informal style,
comprising more assertion than fully defended argument. I ask for the indulgence
of readers pending the publication of the more extensive and definitive exposition.

NOTES
1 In a quite fascinating piece, Fritz Machlup inquired into the historical acquisition of the
reputation of this economic bogeyman that has been claimed to misrepresent so grossly
the true nature of human agents. (1978, pp.283ff.) His conclusion was that such claims
represent a misunderstanding of the purpose that the concept was designed to serve: '... 
homo oeconomicus is not supposed to be a real man, but rather a man-made man, an
artificial device for use in economic theorizing. Thus, he is not a homo but a homunculus.
It is homunculus oeconomicus that we have been talking about all along.' (p.298) It may
well be that this recognition saves economists from the charge that they have been
maligning human nature, but it cannot account for the adoption of the concept itself. Its use in economic theorizing is ultimately attributable to its being ‘... a useful and probably indispensable part of the theoretical system of economics.’ (p.301) Such an assertion begs just the questions that I will be posing in this paper.

2 R.W. Coase, for example, writes quite directly about the priority that it is appropriate to give to Smith’s analyses of human agency: ‘I believe ... [Smith’s] views on human nature are important to us because to know them is to deepen our understanding of his economics.’ (1984, p.546) It was, Ralph Ansphach points out, especially Smith’s concern with the moral dimensions of human nature that penetrate into his economic writings: to begin with, ‘Smith was forced to work out his fundamental theory of social psychology ... in order to develop his reasoning regarding morality.’ Then, Ansphach continues, ‘[t]his basic theory is ... never abandoned by him and therefore must be employed in order to understand the economics of the ... [Wealth of Nations, where he] approaches economics as a science predicated on social psychology ...’ (1972, p.205) Similarly, Nathan Rosenberg writes of Smith’s deep concern to bring about reforms to the economy and society that he found around him, where ‘such improvements could be made only if they were realistically grounded upon an accurate assessment of the human animal and the factors that shape human behavior.’ It follows, then, that ‘[i]f we want to come to grips with Smith’s social analysis and policy recommendations, we need to start with his conception of human behavior.’ (1979, p.21)

3 As Coase puts it, ‘Adam Smith’s view [of man] is in fact a description of man much as we know him to be.’ In particular, ‘[i]t is wrong to believe, as is commonly done, that Adam Smith had as his view of man an abstraction, an ‘economic man’, rationally pursuing his self-interest in a single-minded way. Adam Smith would not have thought it sensible to treat man as a rational utility-maximizer. He thinks of man as he actually is ....’ (Coase, 1984, pp.551, 560, emphasis added)

4 W.D. Grampp gives recognition to an important aspect of Smith’s representation of human agency when he argues that the Wealth of Nations is characterized by ‘the displacement of sympathy by environment as the force which restrains self-interest’ so that ‘the way men behave depends on their environment and ... human nature is governed by the outcome of an interaction between the individual and society.’ (1984, pp.256, 261) Similarly, Samuel Hollander suggests that for Smith, ‘[i]t is a picture of actual behaviour that he believes he is portraying ...’, with his concern being to represent ‘the “entire man” in the anonymous market place where there is little scope for social sentiments.’ (1984, p.684, original emphasis)

5 Hollander renders this interpretation more explicit when he refers to Smith’s ‘environmental approach to behaviour’ and his ‘environmental approach to self-interest.’ More fully, while ‘self-interest as the governing motive throughout time and space as far as concerns man in his economic affairs is indeed Smith’s fundamental axiom ...’, this needs to be situationally qualified and understood because ‘the scope for the various constituent elements incorporated with “self-interested” motivation varies considerably according to the institutional framework ....’ (1984, pp.680, 685) Hollander’s conclusion is that Smith ‘went a considerable way towards defining the interrelationship between the environment and self-interested behaviour.’ And, he goes on: ‘environmental factors determine the range of relevant self-interested behaviour patterns’ so that the ‘self-interested man of Smithian economic theory ... is thus a rather carefully specified individual, who has limited opportunities for indulging his various tastes ....’ (1984, pp.685, 688, emphasis added)

6 J.R. Lindgren’s interpretation is that Smith avoided the extremes of individualism in his epistemology and methodology by representing human agents as affecting and as being
affected by their situations. (1973, pp.53ff.) That is, 'Smith denied that the ethical and commercial rules according to which men govern their actions in society are explicable in terms of, reducible to or deducible from "the laws of the nature of individual man".' (p.55) At the same time, Smith kept his distance from any suggestion of the other extreme of methodological holism in which 'a social system is an organic whole, the components parts of which are individual human beings whose behavior is determined by the functional laws of the whole.' (p.53) There was an organic aspect to his social analysis in that agents were depicted as creatures of their environment who function in accordance with its demands. But, they do so self-consciously and, as a consequence, 'they surrender neither their identity nor their autonomy' in the process. (p.57)

7 It was Walter Bagehot who, writing in the late nineteenth century, concluded that 'the most striking point [of the WN] is that he [Smith] never seems aware that he is dealing with what we should call an abstract science at all.' This he attributed to the fact that the work 'does not deal, as do our modern books, with a fictitious human being hypothetically simplified, but with the actual concrete men who live and move.' (1973, p.125) Similarly, Jacob Viner makes the point that even though Smith recognized the need to focus on the sentiment of self-interest to the exclusion of all others in political economy, '[n]ot a trace of evidence is discoverable ... that Smith in the Wealth of Nations was aware that he was abstracting selected elements from the totality of human nature. It awaited a later and keener mind, Ricardo, to discover the possibilities of the technique of deliberate abstraction in the field of economics.' (1984b, p.152) Hutchison is supportive of this perception in his 1976 Bicentenary piece on the WN when he stresses that Smith did not indulge in any 'high degree of abstraction in terms of a particular aspect of human behaviour', but instead chose to focus upon 'a particular area, in terms of a realistically low degree of abstraction.' As a consequence, he goes on, 'Smith's work lacks the "rigour" and "precision" obtainable (at a perhaps fatally high cost) by much higher degrees of abstraction than he employed.' Thus, Hutchison concludes, 'compared with the subsequent development of economic analysis, especially in Ricardo, Smith's work involves a markedly low or lower degree of abstraction.' (1976, p.486, original emphasis) Furthermore, Hutchison reinforces this interpretation elsewhere by arguing that in the WN, "abstract reasonings" are kept on a very tight rein ... [with] Smith ... certainly not one for taking off into ... "strong cases" or extreme, arbitrary abstractions.' (1978, p.9) Holland, too, lends his support to this view when he writes that 'there is little to suggest that ... [Smith] was devising a deliberate abstraction' when he was working out the inclusion of the human agent in economic activity. (1984, p.684)

8 Hutchison emphasizes that 'Adam Smith emphatically was "avide de faits" [avid of facts], and overwhelmingly demonstrated his avidity, and the conception of the subject which this avidity implied, in The Wealth of Nations.' (1978, p.8, original emphasis) As Viner puts it, too, Smith 'made use of a rich harvest of facts', which he had gathered from a wide variety of sources, and in the composition of the work, '[w]ith this factual material ... [he] kept in close contact, and he never departed from it for long.' (1984b, p.155) Overall, then, we may reasonably conclude with Denis O'Brien that the methodological message for political economists which Smith left implicit in the WN is that whereas the '[r]esults [of analysis] might be tentative ... they would rest on a solid body of facts and would not be speculative conclusions from speculative premises.' (1975, p.67)

9 It was J.N. Keynes who wrote that while Smith has been 'regarded as the founder of the historical method in political economy', it has also 'been said of him that he first raised political economy to the dignity of a deductive science.' Keynes attributed these polarized conclusions to what was, in his view, a skill of Smith's rather than any confusion about methodology. Smith exhibited a 'freedom from excess on the side either of a priori or of
a posteriori reasoning’ and he ‘rejected no method of inquiry that could in any way assist him in investigating the phenomena of wealth.’ (1973, p.10) These sentiments have been reiterated more recently by Hutchison: ‘It is a tribute to the remarkable balance which Smith achieved that he has been acclaimed and criticized from both or all sides of in subsequent methodological debates.’ (1978, p.8)

10 W.J.Ashley somehow reached the conclusion that ‘Smith’s frame of mind was on the whole essentially unhistorical ... historical narration and inductive reasoning were with him subordinate to a deductive movement of thought.’ (quoted by Hutchison, 1978, p.8n) In this interpretation, Ashley followed John Cairnes, according to whom Smith never makes history ‘the basis of his doctrines.’ Rather, he ‘first lays the foundation deep in the principles of human nature and the physical facts of the external world; the subsequent reference to historical events is merely in illustration of the mode in which the laws thus established operate.’ (1965, pp.114-5) What Cairnes found in the WN, then, was an early use of the a priori deductive methodology, based on the introspective derivation of the premises involving human nature and the adoption of other necessary premises from relevant extant human knowledge. As he put it, ‘[f]or the discovery of such premises no elaborate process of induction is needed.’ (1965, p.88) This was just the methodology that he himself defended as the only one appropriate to political economy, and in doing so, he reflected the firmly held conviction of most prominent writers of the period. (1965, pp.87-9)

11 Even more pointedly, at the same time, Hollander links Smith back to Newton: ‘Smith’s respect for Newton extends beyond the insistence on a sound axiomatic foundation for scientific systems to the championship of deductive theorizing itself.’ (1987, p.319) He carefully specifies first, though, that ‘Smith went to great lengths to avoid establishing an economic “system” upon purely “hypothetical” axioms.’ Rather, he ‘proceeded consistently with his evaluation of Newton’s approach in the natural sciences (and it may be added in conformity with the recommendations of Hume and the Scottish historical writers)’, in particular because he ‘used the historical and contemporary records in a masterly fashion to define the manifestion of the “familiar” behaviour axiom of self-interest ... in a capitalist exchange system.’ From there, Smith’s use of the Newtonian methodology ‘carries over also to the deductive aspects of model building. His “system” relating to the competitive mechanism of investment priorities over time and the theory of value and distribution, are outstanding examples of deductive theorizing of the type subsequently carried further by Ricardo.’ However, Hollander goes on to conclude, Smith diverged from the Newtonian methodology in that ‘he had little confidence in testing procedures for the verification of the deductions drawn from economic models, in contrast to models in the natural sciences.’ (1984, p.691, original emphasis) The reason for this lack of faith in testing theory against the facts, according to Hollander, is that the facts always include the effects of, what would soon be called, ‘disturbing causes’ which the theory had explicitly excluded from the abstracted conditions from which its reasoning worked. (1987, pp.320-1) An additional factor in Smith’s attitude here was the objective of his theorizing, for Hollander argues that Smith’s concern was ‘not with prediction but rather with interpretation or explanation to the end of giving advice to policy-makers.’ (1987, p.320) This was so because it was the persuasive power of his theory as a piece of logical exposition, designed to counteract the hold that Mercantilist dogma had on the public mind, that was of most concern to Smith.

As with all things Smithian, Hollander’s reading, as far as it concerns Smith’s attitude to theory testing, does not enjoy universal assent. Other scholars have concluded that he did make serious endeavours to ensure the consistency of his theories with the facts of the day and constantly checked his results by appeals to the actual developments of history that he
so carefully recorded as an integral part of the WN exposition. J.N. Keynes drew attention to this quality of Smith's methodology: 'He believed in a "natural" order of events, which might be deduced a priori from general considerations; but he constantly checked his results by appeals to the actual course of history.' (1973, p.11) More recently, Denis O'Brien has espoused a similar interpretation regarding Smith's resort to theory testing. In brief, his reading is that Smith's procedure may be summarized as: empiricism -- deduction -- verification -- empiricism and so on.' (1975, p.67)

12 Around 1829-30, Mill decided to put together some essays on selected substantive aspects of political economy, along with one on its definition and methodology. He then spent some effort on their revision for publication up to the mid-1830s. While confusion surrounds the precise dating of these works, the important one for our purposes here, that on definition and methodology, was the only one actually published in the 1830s. It appeared in the Westminster Review in 1836. The other four had to await the success of Mill's later philosophical work to be accepted for publication, along with a republication of the methodology piece, as the collection Essays on Some Unsettled Questions of Political Economy in 1844. (Mill, 1981, p.189; 'Editor's Note', Mill, 1967, p.230)

13 Parallel with his work on the DPE, Mill wrote the early draft of significant parts of the SOL dealing with the most basic topics of philosophy and logic and with the problem of deduction, later to constitute Books I and II and part of Book III of the work. At that time, he had also hoped to deal 'at once with the problem of Induction, postponing that of Reasoning, on the ground that it is necessary to obtain premises before we can reason from them.' (1981, p.167) However, this was not to be. Mill recalled that he had been much troubled by the inductive dimension of methodology: 'I had come to the end of my tether; I could make nothing satisfactory of Induction, at this time. I continued to read any book which seemed to promise light on the subject, ... but for a long time I found nothing which seemed to open to me any very important vein of meditation.' (1981, p.191) The 'long time', in fact, was to last five years during which time work on the SOL was brought to a halt. The breakthrough came in 1837 with the publication of William Whewell's book History of the Inductive Sciences. This work provided Mill with an accessible survey of the inductive process as it had been established and practised across the whole of the sciences and this, together with a re-reading of John Herschel's A Preliminary Discourse on the Study of Natural Philosophy, which had appeared in 1831, enabled him rapidly to complete that part of Book III which had brought him to a standstill. (Mill, 1981, pp.217-19) After that, the remainder of the book was written and then the whole of it rewritten completely between 1841 and 1843, with some significant revisions, before the manuscript was sent to the publishers. The book finally appeared in the spring of 1843 with the full title A System of Logic Ratiocinative and Inductive: Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation. (see Mill, 1981, pp.229ff.; Robson, 1973, pp.lxivff.)

14 This reading of Mill as essentially 'Ricardian' in his main economic treatise has been cogently argued by both Pedro Schwartz and Samuel Hollander in recent times. Schwartz's summary is especially apt: 'By refusing to take part in the criticism of Ricardian analysis, Mill remained a disciple of Ricardo .... His aim [nonetheless], and one in which he was largely successful, was to restore Adam Smith's concept of a broad political economy, which instead of confining itself within the limits of narrow professionalism would use economic knowledge to interpret and change society.' (1972, p.240; cf. Hollander, 1985, pp.165ff.)

15 Mill endeavoured to steer a course between all this dissent: "Economics had acquired a reputation of a cruel science, that showed the nations the road to the acquisition of wealth through hard work and selfishness; ... it was "the dismal science" ... [and he] wanted to
change it into a doctrine of hope, one that was not merely reformist ..., but progressive in the widest sense of the word." (Schwartz, 1972, p.4) He aimed to do so by sustaining and building on the substantive strengths of the orthodox doctrine, while at the same time giving due recognition to its limitations: '... he patched up the theory where it showed the passage of time, and changed the practical import of the theoretical model by making different assumptions ... and giving entrance in the economic argument to political and ethical considerations.' (Schwartz, 1972, p.236; cf. pp.66, 70, 193) At the same time, he was intent upon not engaging other political economists in polemic: 'I confess', he remarked in a letter of 1852, 'I do not see the good that is to be done by swelling the outcry against pol. economists -- or why they should be blamed because people do unjust or selfish things for the sake of money.' (Mill, 1972, p.93; quoted by Hollander, 1985, p.181)

16 Hollander refers to 'Mill's hostility to philanthropic do-gooders who based themselves on thin air' and sums up the situation thus: 'What Mill intended by his Principles was the liberation of public opinion from the influence of second-rate economists who gave economic theory a bad name by their apologetic misapplications of theory, and from the false belief that Ricardian doctrine and method itself amounted to social apologetics.' (1985, pp.179, 185; cf. pp.178ff.)

17 Very early on, J.N.Keynes commented on the contrast between 'Mill's theory of method as contained in the Essays [DPE], and his practice as manifested in the Principles. In the former, the conception of "economic man" occupies a position of central and all-pervading importance; in the latter, it plays a much humbler part ... [and] [m]oral and social considerations, in the widest sense, receive accordingly their due share of attention ....' (1973, pp.19-20; cf. 116ff.)

18 Hollander, nonetheless, argues that '[m]ostly some anomalies, on the whole there is close accord between the pronouncements of the [DPE] essay and the Principles so far as concerns the linkages between factual investigation, economic theory and policy recommendation; indeed the Principles can only be fully appreciated in the light of the essay.' (1985, p.164)

19 Cf. Blaug's conclusion that there is a lack of any apparent connection between the methodology of the SOL and what was applied in the PPE: the latter 'contains neither an explicit discussion of methodology nor an harking back to the Logic to show that the Principles exemplifies sound methodology.' The resulting two methodological Mill's can be accounted for, he suggests, by realizing that 'neither the critics nor Mill himself saw any relationship between the Logic and the Principles; for all practical purposes, they might just as well have been written by two different authors.' (1980, pp.72-3)

20 Viner's observation is apt at this point: 'The Principles ... has no single methodological character. As is the case with the Wealth of Nations of Adam Smith, some portions are predominantly abstract and a priori; in others, there is a substantial measure of factual data and of inference from history.' And, he goes on to conclude that the PPE 'would have been an inferior book, much less rich in content -- and much smaller in size -- if Mill had thrown out all that was ambiguous and lacking in strict logical consistency.' (1987, pp.161-2)

21 Hutchison suggests that the end of the 'Ricardian' dominance came in the late 1860s and early 1870s. During this period, Mill himself came 'to share the disillusion and impatience with the prevailing doctrines, or some of them, which had owed so much to his own prestige and earlier support.' (1978, p.63; cf. pp.58ff.)

22 In the work of Leslie's on the land issue with which he was immediately concerned, Mill found and quoted the following piece in support of his views (Mill, 1967, p.671): 'A school of economists of no small pretensions, strongly represented in parliament,
supposes itself to be furnished with a complete apparatus of formulas, within which all economic knowledge is comprised – which clearly and satisfactorily expounds all the phenomena of wealth, and renders all further investigation of the causes and effects of the existing economy of society needless, and even mischievous, as tending to introduce doubt and heresy into a scientific world of certainty and truth, and discontent and disturbance into a social world of order and prosperity." (Leslie, 1870, p.89; quoted, with emphasis added, by Hutchison, 1978, p.64)

The thrust of the methodological point had been made more obvious in one of Mill's letters of 1867. He referred to his support for '...the emancipation of political economy – its liberation from the kind of doctrines of the old school (now taken up by well-to-do people) which treat what they call economical laws, demand and supply for instance, as if they were laws of inanimate matter, not amenable to the will of the human beings from whose feelings, interests and principles of action they proceed. This is one of the queer mental confusions which will be wondered at by and by.' (Mill, 1972, p.1320; quoted by Hutchison, 1978, p.63, my emphasis added) The unfortunate fact is that from this point onwards, few economists did stop to 'wonder at' this 'queer mental confusion'.

REFERENCES


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