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ADAM SMITH AND THE PHYSIOCRATS: CONTRASTING VIEWS OF THE LAW OF NATURE

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The paper argues that Smith's critique of the Physiocrats rests on underlying philosophical differences. Although Smith shared with Quesnay and his followers a belief in natural law, there is nonetheless a significant difference, which has not been thoroughly discussed in the literature. Smith's version of natural law rests on empiricist foundations, while Quesnay is a rationalist. In Smith's eyes this caused Physiocratic doctrine to be led into error and confusion by its disagreeable metaphysics. This, not a failure to appreciate the *Tableau*, the paper argues, is the root of Smith's critique both of Physiocratic theory and of policy.

1. Adam Smith and the Physiocrats: Contrasting Views of the Law of Nature

Questions about Adam Smith's intellectual relationship to the Physiocrats are as old as the secondary literature on Smith. In his "Account of the Life of Adam Smith", Dugald Stewart defended Smith's originality *vis-à-vis* the French economists on the doctrine of economic freedom, which they shared (Stewart 1980 [1793], IV.23, 25). However, in his lectures on political economy Stewart showed a marked preference for the Physiocrats on theoretical grounds, and he considered Smith's critique of their economic theory erroneous and unjust on several points (Winch 1994, p. 102; also Rashid 1998, pp. 189-190). His student, Francis Horner, accepted that Smith did not fully understand the Physiocratic system and further raised the possibility of plagiarism in Smith's use of their theory (Winch 1994, p. 103). These early discussions took place in a highly charged political environment in which the French Revolution had generated a conservative backlash in Britain against what was perceived as dangerous French influence. Emma Rothschild, for example, argues that Stewart's "Account" must be understood in this context as an attempt to distance Smith from such ideological associations (2001, p. 52). However, in the two hundred intervening years commentators have continued to arrive at very different conclusions about Smith's understanding of the Physiocratic system and his intellectual debts to it.

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This divergence continues despite the availability since 1896 of Smith's *Lectures on Jurisprudence* (LJ), report of 1763-1764, which gives us a very accurate picture of the state of Smith's theoretical economics on the eve of his departure for France. Writing in 1896 Edwin Cannan remarked of the *Tableau Economique* that

"...it attempts to give a comprehensive view of the total results of the industry of a year, it marks an enormous advance in economic theory, and we can easily imagine that an acute mind like Adam Smith's would immediately grasp its importance".

(Cannan 1896, p. xxix)

At the occasion of the sesquicentennial of the publication of the *Wealth of Nations* (WN) Melchior Palyi, referring to Smith's assessment of the Physiocrats in WN, observed to the contrary that, "The Physiocrats, of course, had little inclination toward an author who had treated them in a rather scornful way" (Palyi 1928, p. 185). Schumpeter, no great admirer of Smith, felt he had not grasped the importance of the *Tableau Economique* (Schumpeter 1954, p. 232) and in the modern era Salim Rashid summarized Smith's account of Physiocratic doctrine as "damning with faint praise" (Rashid 1998, p. 190). In addition, Rothbard has asserted that, "Though Adam Smith knew Turgot personally, and read the *Reflections*, the influence on Smith, whose conclusions, apart from a broadly *laissez-faire* approach, were so different, was apparently minimal" (1995, p. 403). After a very careful survey of the evidence, both historical and internal, Peter Groenewegen concluded that if Smith did owe an intellectual debt to Turgot it was not great (1969, p. 287). It appears that there are still unsettled questions. How perceptive was Smith's grasp of Physiocratic theory? Was he "scornful" and inaccurate in his discussion of the system? Did he "immediately grasp its importance", but then borrow from it to the point of plagiarism?

The purpose of the present paper is to revisit these questions from a new perspective. In particular, I will argue that regardless of what Smith may have said or not said in his chapter on the agricultural system, the content of WN, especially Book II, but also Book I, contains unmistakably Physiocratic elements, which were either not present or not developed in his *Lectures*. The thesis that Smith did not understand or had slighted the physiocratic doctrines, therefore, cannot be sustained. That Smith was critical of them is unquestionable, as it is well known that he did not accept the doctrine that agriculture alone was productive of a surplus. This suggests that we must look elsewhere for the source of Smith's 'scorn'. I shall argue that the root of Smith's critique is to be found in his very different view of natural law and the natural order.

W.R. Scott had observed in an unpublished manuscript, which probably dates from around 1923, that

"They [the Physiocrats] differed from Adam Smith in that he used Nature as a starting point in his investigations, continuing by an extended inductive inquiry as that in

the end Nature with him becomes little more than a working hypothesis. With the Physiocrats, Nature was the fundamental principle from which every thing was deduced. Natural Right, natural order, the state of Nature constituted a rigid standard by which all human institutions were measured. Therefore, being largely deductive, their chain of ideas formed a logical system depending altogether upon the fundamental premises from which they were all derived".

(Scott 1923, Appendix, p. 2)¹

This is an aspect of Smith's treatment of Physiocracy that deserves further elaboration as it is at the heart of Smith's differences with them. Thus, it is not that Smith failed to grasp the significance of the *Tableau*, but rather it is a deep-seated philosophical dispute that informs his discussion. It is at the root of his rejection both of the doctrine of the sole productivity of agriculture and of their rigid, dogmatic approach to policy. It is no coincidence, for example, that he referred to them as a "sect" (WN IV.ix.38). The tendency to uncritically lump Smith and the Physiocrats together under the banner of *laissez-faire*, which persists despite Viner's classic article, I would suggest explains why historians have not sufficiently noticed that Smith and the Physiocrats mean very different things when they talk about such things as natural law and natural rights (Viner 1928).

The paper is divided into four parts plus a short conclusion. The first part surveys Smith's positive debts to the Physiocrats including Turgot. The second part lays out certain key features of Quesnay's rationalist theory of natural law. Part three, then, takes up Smith's critique of Physiocracy as it appears in WN, and, lastly, part four shows the roots of Smith's critique in his empiricist theory of natural law.

1. Smith's positive debt to the Physiocrats²

The profound impact that the Physiocrats had on Smith can be seen in the significant differences between Smith's system of political economy and that of his main rival, his countryman Sir James Steuart. While Smith's is post-Physiocratic, Steuart's *Principles of Political Economy*, despite its publication date of 1767, is really a pre-Physiocratic book. Interestingly this is largely the result of historical accidents that saw each of them living for a time in France and becoming acquainted with some of the leading figures of the movement. In Steuart's case his exile following the failed Jacobite rebellion of 1745 saw him resid-

1. In his published account Scott suggests that Smith and the Physiocrats shared the Naturalism of the eighteenth century, "But each had a different line of approach..." (1937, p. 112). The point, however, is not pursued.

2. This section draws heavily on Andrew Skinner's work on Smith's relation to Physiocracy (see especially SKINNER 1996; 1997; 1999).

ing in Angoulême where he eventually made acquaintance with the members of the exiled Parliament of Paris, among them the Mercier de la Rivière. It was here among these men where, according to Andrew Skinner, his interest in political economy was stimulated (Skinner 1966, pp. xxxv ff.). Subsequently he was in Paris by the end of 1754 where he was probably introduced to Mirabeau.

Physiocracy had yet to be born. The first edition of the *Tableau Economique* was not published until 1758 and then only at Versailles. At this date it did not even exist in embryonic form, as Quesnay's earliest economic writings date from 1756. However, with war about to break out between England and France, and with Sir James not wanting to jeopardize his prospects for a pardon, he left France almost immediately, ultimately settling in Tübingen, where he wrote the first two books of the *Principles*. He left Paris on the eve of the invention of the *Tableau*, while Smith was there precisely at the peak of Physiocratic influence, 1766. The *Tableau* had already evolved through several improvements and Turgot was working out significant revisions. The *Tableau* was a model that Smith could more readily adapt for his own purposes. Certainly some of the enduring quality of WN compared to the *Principles* is due to Smith's ability to incorporate the simple model of capital accumulation and the circular flow, but it was largely accidental that Steuart was unable to do it first.

The story of Smith's trip to France and his subsequent acquaintance with Quesnay and Turgot are well known. We know the state of Smith's economic theory before the trip, and, with a high degree of certainty, we believe that Smith had no prior knowledge of Physiocratic writing, notwithstanding his familiarity with French Enlightenment literature (Scott 1937, p. 125). The material which later became part of the WN included the analysis of the division of labor, the allocative functions of the price system, and the attack on mercantilism based on the fallacy of equating money with national wealth. In addition, there was a very rudimentary concept of capital as stock, and the associated idea that saving will cause the stock to accumulate – LJ(A) vi.169-170. Without going into technical details here we note Andrew Skinner's conclusion that "...he had in fact attained a sophisticated grasp of interdependence of economic phenomena prior to his departure for France in 1764" (1997, p. 9). He was very well positioned to appreciate what the Physiocrats were trying to do.

What he encountered was a well-developed macroeconomic model, Quesnay's *Tableau Economique*, and Turgot's revisionist theories soon to be published as the *Reflections on the Formation and Distribution of Riches* (hereinafter *Reflections*). In the *Tableau* we have an elegant, mathematical analysis of the interdependence of the two key sectors of the economy, agriculture and manufacturing (including trade) in the form of what we today would call a static macroeconomic model. There were also dynamic versions of the model that were used to

portray either a growing or a declining economy. At its most basic it portrayed production taking place in a sequence that begins with advances of fixed and circulating capital and ends with output that is then exchanged for new commodities which become the advances for the next round of production. It is no accident that Quesnay frequently talked about the system of 'reproduction'. At one level this process worked the same in each of the two sectors. However, there was one difference, and this was the key to the whole Physiocratic system. The reproduction in agriculture yielded a surplus in the form of food in excess of what was necessary to replenish the advances. This was not the case in manufacturing and trade. Here the total output, when sold, was only enough to pay the wages and return a normal rate of profit to the undertakers of these enterprises. In agriculture there was a surplus, or net product, left over to pay the rent of the proprietors.

The model, based on the analogy of the circulation of blood in the human body, depicted a perfectly functioning natural order as the circulation of goods between the two sectors continually replenished the advances that were used up in their production. Just as the heart was the "prime mover" in the human body, the net product put into motion by the proprietor's expenditure of the rent was the "prime mover" in the political body (Banzhaf 2000, pp. 546-547).

In this conception of the economic process, policy must be rooted in the natural order, and society must be remade in the image of the *Tableau*. This required reform on three policy fronts. First, free trade in corn would serve to increase the net product, because it would act as a stimulus to investment in agriculture. Second, a single tax on land would be the only reasonable approach to taxation, because as the model shows, a tax placed anywhere else in the system would impinge on the necessary advances and inevitably push the system into decline. As Quesnay observes, "...any other form of imposition would be contrary to the natural order, since it would be detrimental to reproduction" (Meek 1993 [1962], p. 154). Third, the policies that encouraged manufacturing and trade at the expense of agriculture, and thus promoted 'sterile' at the expense of 'productive' uses of capital, would have to be repealed.

While he was in Paris, Smith also met Turgot, whose *Reflections* was moving Physiocratic thought in a direction Smith would find more congenial. As Ronald Meek has pointed out Turgot was not a thoroughgoing Physiocrat. He was a "fellow-traveler" (ibid., p. 311). His intellectual interests and his approach to economics were so very similar to Smith's that it is not surprising that they would derive much mutual pleasure from their relationship. As Dugald Stewart observed, "The satisfaction he [Smith] enjoyed in the conversation of Turgot may be easily imagined. Their opinions on the most essential points of political economy were the same; and they were both animated by the same zeal for the best interests of mankind" (Stewart 1980 [1793], III.11).

Briefly, Turgot's *Reflections* incorporated such Physiocratic principles as the privileged role of agriculture, the concept of capital as advances, and the circular flow model between the sectors that portrayed the system of continuous reproduction taking place sequentially through time. However, his innovations are significant. He subdivided the two main classes of farmers and manufacturers into capitalists who provided the advances and undertook the enterprise and wage laborers who supplied only physical labor. This, in turn, led Turgot to draw a distinction, which Smith adopted, between the three categories of returns to the three factors of production, wages, rent, and profit.

In addition, he envisioned the allocation of capital among five alternative uses: investing in land, farming, manufacturing, trade, and lending at interest (Turgot 1793, p. 99). At any point in time there would be an equilibrium structure of rates of return, taking into account such factors as differential risk, and the process of re-establishing this structure following a disturbance would guide the allocation of resources in society. "Analytically [this ...] 'supermodel' is light years ahead of the apparatus contained in Smith's *Lectures*" (Skinner 1999, p. 112).

Despite paying homage to the doctrine of the sole productivity of agriculture, Turgot's model is moving in a different direction, one that we see Smith taking up also in WN. In particular, the theory of the five uses of capital and the associated equilibrium structure of returns would seem to place all forms of capital investment on a common footing. Each one is productive in that it yields a return containing an element of surplus. Thus, from the annual proceeds it will be possible to generate new capital to invest in each of these areas (Meek 1993 [1962], p. 311; also Skinner 1997, p. 14). Although not the same thing, Smith adapted this theory to become his model of the different employments of capital which posited a hierarchy of investments. Agricultural capital was the most productive form of investment with the foreign carrying trade being the least productive. From this he developed a theory of economic development, the "Natural Progress of Opulence" in the third book of WN in which agriculture develops first, followed by manufacturing, internal trade, and then external trade. The model also became the basis of his attack on the mercantile system in Book IV.

Smith's particular debt to Turgot is further evident in Books I and II in the fact that he breaks down the national income into the three factor shares, emphasizes the different employments of capital, and generalizes the concept of productive labor to apply to all sectors of the economy.

We know with a high level of certainty the nature of Smith's debt to the Physiocrats. Certain key features of the economics of the WN that were not present in the *Lectures* are precisely those that he attributed to the Physiocrats in his discussion of their system of political economy (Skinner 1997, p. 20). In addition to those analytical features already mentioned above, we should also at least allude to the whole

dynamic macroeconomic model of Book II. Here Smith deploys the concepts of fixed and circulating capital, productive labor, and the circular flow to depict economic growth as a process of capital accumulation in which stocks of fixed and circulating capital are continuously increasing as they are also being replaced. None of this was in the *Lectures*. Thus we see, for example, Smith describing the process by which the capital is continually withdrawn and regenerated in society via the circular flow:

“So great a part of the circulating capital being continually withdrawn from it [stock reserved for immediate consumption], in order to be placed in the other two branches of the general stock of the society; it must in its turn require continual supplies, without which it would soon cease to exist. These supplies are principally drawn from three sources, the produce of land, of mines, and of fisheries. These afford continual supplies of provisions and materials, of which part is afterwards wrought up into finished work, and by which are replaced the provisions, materials, and finished work continually withdrawn from the circulating capital [...] Land, mines, and fisheries, require all both a fixed and a circulating capital to cultivate them; and their produce replaces with a profit, not only those capitals, but all the others in society. Thus the farmer annually replaces to the manufacturer the provisions which he had consumed and the materials which he had wrought up the year before; and the manufacturer replaces to the farmer the finished work which he had wasted and worn out in the same time. This is the real exchange that is annually made between these two orders of people...”.

(WN II.i.27-28)

The Physiocratic flavor of this passage is evident. While Smith recognized general interdependence in the system in his *Lectures*, he did not have the concepts of fixed and circulating capital being continually produced and used up in an annual cycle. Nor did he envision the interdependence between the sectors in terms of the output of one becoming the next period’s capital advanced in the other.

Smith’s treatment of Physiocracy in Book IV, chapter ix, has been criticized for not fairly representing the model in general and for not openly acknowledging his debt to Turgot in particular. In addition, as noted above, commentators have been divided in their assessments of Smith’s grasp of Physiocratic theory (Edwin Cannan and Melchior Palyi representing the extremes). However, Skinner replies that

“What *can* be said is that the content of WN IV, ix, contains a recognition of the content of the ‘super-model’ and that the macro-economic analysis of Book II contains an implicit acknowledgement of the revisionist *model*, with its distinction between undertakers and wage labour, even if its *authors* were not always directly identified”.

(Skinner 1997, pp. 23-24; emphasis in original)

It seems most unlikely, then, that Smith’s critique of Physiocracy is misguided from any failure to grasp their theoretical apparatus. It infuses both of the theoretical books of WN almost in the same way that Hume’s philosophy infuses the *Theory of Moral Sentiments* (TMS),

yet no one has suggested that Smith's debt to Hume is insufficiently acknowledged. What other source gets more acknowledgement from Smith than Quesnay? Smith even wanted to dedicate the book to him (Stewart 1980 [1793], III.12). Whether he should have also mentioned Turgot by name in WN IV.ix is tangential to the argument of this paper. To understand the nature of Smith's critique we must look beyond analytical economics to the philosophical positions which inform their respective systems.

2. Quesnay's Rationalist Natural Law

In Part VII of TMS Smith issues a general critique of all rationalist theories of morality:

"But though reason is undoubtedly the source of the general rules of morality, and of all the moral judgments which we form by means of them; it is altogether absurd and unintelligible to suppose that the first perceptions of right and wrong can be derived from reason, even in those particular cases upon the experience of which the general rules are formed. These first perceptions, as well as all other experiments upon which any general rules are founded, cannot be the object of reason, but of immediate sense and feeling [...] If virtue, therefore, in every particular instance, necessarily pleases for its own sake, and if vice as certainly displeases the mind, it cannot be reason, but immediate sense and feeling, which, in this manner, reconciles us to the one, and alienates us from the other.

(TMS VII.iii.2.7)

The Humean flavor of this passage is evident. "For empiricists like Hutcheson and Hume, the rationalist theory was unsatisfactory because, instead of relying on the experience of sense and feeling, it posited occult qualities that were said to resemble mathematical entities" (Raphael 2001, p. 92). Although Smith never wrote on epistemology, it is clear that he followed the empiricism of Hutcheson, his teacher, and Hume. This is evident when he claims that moral distinctions are originally a function of our feeling, sentimental faculties, not our cognitive faculties. However, Smith parts company from Hume on a number of points, one of which is natural law, which Smith attempted to derive from an empiricist view of knowledge, but more on this below. This was a form of reasoning that was foreign to Quesnay, who was a rationalist.

Thanks to Ronald Meek's decision to translate excerpts from Quesnay's philosophical writings, we have had access in the English-speaking world to this aspect of Physiocratic thought for forty years. However, these important underlying, subtle philosophical differences between empiricist and rationalist conceptions of natural law have not been widely noted. Their common use of a natural law discourse tends to obscure the point.

Underpinning Quesnay's conception of the natural order is a conception of natural right and natural law. We can gain an appreciation

of some of the important features of Quesnay's conception from the following passages taken from "Natural Right":

"The host of contradictory and absurd laws which nations have successively adopted proves clearly that positive laws are often apt to deviate from the immutable rules of justice and of the natural order which is most advantageous to society".

(Meek 1993 [1962], p. 45)

"When they [humanity] enter into society, and come to agreement among themselves for their natural advantage, they thereby increase the enjoyment of their natural right; and they also assure for themselves the full extent of this enjoyment, if the constitution of the society conforms to the order which is self-evidently the most advantageous to men, with respect to the fundamental laws of their natural rights".

(*ibid.*, p. 47)

Thus we see that there is a natural order from which positive, i.e., human-made law, has deviated. Among the attributes of this order we see that it is immutable and the most advantageous to society. Moreover, there is something self-evident about this order, and that constitutions should be adapted to conform to it.

It is also of divine origin, which is how the natural law acquires its authority:

"All men and all earthly powers ought to be subject to these sovereign laws instituted by the Supreme Being. They are immutable and indispensable and the best laws possible [...] they are the foundation of the most perfect government, and the fundamental rule for all positive laws".

(*ibid.*, pp. 53-54)

Since it is the foundation of perfect government, it is not surprising that, "Transgressions [...] of natural law] are the most important and usual causes of physical evil..." (*ibid.*, p. 48). This probably goes a long way to explaining the religious fervor with which the school promulgated its basic tenets.

Natural laws are either physical or moral. Physical laws are defined as the "*regular course of all physical events in the natural order which is self-evidently the most advantageous to the human race*" and the moral law is the "*rule of all human action in the moral order conforming to the physical order which is self-evidently the most advantageous to the human race*" (*ibid.*, p. 53; emphasis in original). These taken together constitute the natural law to which all people and governments should be subject.

The laws of human action and of society which conform to the natural are very much like the laws that rule the physical world. Knowledge of the natural laws that should govern human society, like knowledge of the laws of nature comes from the exercise of reason. "Reason is to the soul what the eyes are to the body: without his eyes a man cannot enjoy the light, and without light he can see nothing". Thus, "If the torch of reason illuminates the government, all positive laws harmful to society and to the sovereign will disappear" (*ibid.*, p. 55).

We thus have a conception of a divinely instituted natural order, immutable, and the best possible world for men, applicable equally both in external nature and in human nature. Its laws are self-evident and discoverable by reason. They are like mathematical truths deduced from self-evident propositions. Society must be made to conform to the natural and the sovereign must study the law of nature to bring this about.

Two implications of this will be important in understanding Smith's critique. First, positive law, which varies over time and space, is not a good guide to "the state of the natural right of man" (*ibid.*, p. 52). Second, "The study of human jurisprudence is not sufficient to make a statesman" (*ibid.*, p. 231). Rather the statesman should study the natural order, introduce the "best laws" and cause them to be "scrupulously observed" (*ibid.*). In political economy this requires the statesman to remake the economy in the image of the *Tableau* right down to its mathematical detail, as this was necessary to insure the macroeconomic stability of the system (Samuels 1962, pp. 159-190). It is no wonder that Quesnay embraced the "doctrine of legal despotism and a political philosophy which envisaged a constitutional monarchy modelled upon the Emperor of China" (Skinner 1997, p. 5; also 1999, p. 112)³.

As we shall see it was these metaphysical underpinnings which proved so disagreeable to Smith. However, the model itself was significantly advanced compared to his own. Its elegance and simplicity would surely have caught the imagination of the author of "The Principles which Lead and Direct Philosophical Enquiries; Illustrated by the History of Astronomy" (Astronomy and Physics). In that posthumously published work, Smith developed a theory of scientific inquiry based on Hume's theory of the imagination. In it Smith treated a scientific theory as "an imaginary machine invented to connect together in the fancy those different movements and effects which are already in reality performed" (Astronomy IV.19). The motivation is to alleviate the disagreeable sensation of unexpected chains of events, or the appearance of new objects. The theory must be psychologically appealing, which means that it should be coherent, simple, and related to the familiar. The quintessential example of a system which pleases

3. Terence Hutchison has also examined in some depth Quesnay's admiration of the Chinese Empire as an example of a state set up in accordance with what he viewed as the laws of nature, thus corroborating the view that Quesnay's approach leads naturally to despotic government (1988, pp. 280-284; see also GIDE and RIST, pp. 51-55). Recall also that Smith used China as an example of the agricultural system of political economy (WN IV.ix.40-41). However, unlike Quesnay, he used it as a negative example of the horrors of the stationary state (WN I.viii.24), and believed that under different institutions China was capable of further economic progress (I.ix.15). Among contemporaries it is noteworthy that Turgot and Condorcet, also repudiated the political principles of the Physiocrats (ROTHSCHILD 2001, p. 19). This is an important example of the practical importance of the contrast between Smith and Quesnay on natural law, and of the error in placing Turgot among the sect.

the imagination is Newton's, which not only is consistent with the most accurate measurements, but also is aesthetically appealing to the imagination because it portrays the "...discovery of an immense chain of the most important and sublime truths, all closely connected together, by one capital fact, of the reality of which we have daily experience" (Astronomy and Physics IV.76)⁴. Smith might have used virtually the same language to praise Quesnay's *Tableau Economique*. In it the system is presented as a coherent whole tied together by a single principle, the constant replenishing of advances, set in motion by the net product in agriculture, of which we have daily experience (the bounty of nature).

However, it would be more accurate to say that Quesnay is the Copernicus of political economy, not the Newton. Like the Copernican system, Quesnay's is crucially dependent on a proposition that the imagination has a hard time grasping. Just as Copernicus's offended against common experience by requiring the earth to be moving at upwards of 1,000 miles per hour at the equator (Astronomy and Physics IV.38), Quesnay's insistence that manufacturing was unproductive offended against "...the common apprehensions of men" (WN IV.ix.10). The imagination could not easily comprehend how an activity, which increased (by Quesnay's own admission) the value of the raw materials worked on, could be designated 'sterile'. Smith knew that Galileo and Newton eventually solved the problem with the Copernican system and he may well have considered his adaptation of the model the answer to Quesnay's system.

3. Smith's critique of Physiocracy

Smith understood that the Physiocrats had produced a "very ingenious system" one which "with all its imperfections is, perhaps, the nearest approximation to truth that has yet been published upon the subject of political economy" (WN IV.ix.38). Of the imperfections of the system we may identify two, namely, the doctrine of the sole productivity of agriculture (the "capital error" of the system), and its "very speculative" nature, which led to a perhaps over-zealous advocacy of "perfect liberty and perfect justice" (WN IV.ix.28; also 17 and 38). That these two imperfections are interrelated will become apparent, as they both arise out of Quesnay's metaphysical conception of the natural order.

4. Yet even this system, Smith reminds himself, is a human construct, not nature in itself. Scientific theory, for Smith, is always a provisional and incomplete representation of reality. The same applies to social theory, as we shall see shortly with Smith's concept of a natural jurisprudence.

As we have already seen in Turgot's hands Physiocracy stands on the verge of a substantial readjustment, as it is but a small step from his model of the allocation of capital to jettisoning entirely the doctrine that only agriculture is productive. As we have also seen, this was a step that Smith took when he adapted Turgot's model into his theory of the hierarchy of capital investments. His model is more agreeable to the 'common apprehensions of men' and thus can more readily soothe the imagination.

In this chapter Smith offers five "observations" to show that it cannot be true that agriculture alone is productive. The first and fifth observations suggest a problem of logical consistency. If manufacturing, for example, is admitted to add value sufficient to replace the circulating and fixed capital used up, then surely it is productive. In the same way a marriage that results in two children is normally thought to be productive, even though less productive than a marriage that leads to a growing population (WN IV.ix.30) (note here the use of an analogy drawn from everyday experience). There is also the fact that trading nations are able to enjoy more subsistence and other conveniences of life than do agrarian nations (WN IV.ix.37).

The second observation derives from the distinction that Smith makes between manufacturing and trade on the one hand and menial servants on the other. The laborers of the former are maintained out of capital and their employment returns the undertaker's capital with a profit. The latter are maintained out of revenue and their employment yields utility to the master, but as there is no vendible commodity, there will be no return to replace their consumption with a profit (WN IV.ix.31; also II.iii). From this perspective it is an error to lump together manufacturing labor with menial servants. Third, by reasoning similar to the first and second observations, it is improper to exclude the value of what the manufacturer produces from the revenue of society, and fourth, all capital ultimately derives from saving. This applies to those engaged in agriculture as much as to anyone else (WN IV.ix.32, 34).

In each case, it is worth noting that Smith appeals to commonly acknowledged facts, not some hidden essence, or metaphysical belief in the natural order. Indeed, we have direct evidence from Smith's discussion of the Physiocratic single tax on land rent that he attributed the "capital error" of the theoretical system to their metaphysics. There he complains, in passing, that the tax is supported by "metaphysical arguments" that would be "disagreeable to discuss" (WN V.ii.c.7). There seems to be a very definite offense here against the aesthetic sensibilities of the imagination.

In addition to the "capital error" in the realm of theoretical economics, there is a related problem of the approach to economic policy. In the passage that some may have interpreted as "scornful" Smith singles out Quesnay by name for criticism:

“Some *speculative* physicians seem to have imagined that the health of the human body could be preserved only by a certain precise regimen of diet and exercise, of which every, the smallest, violation necessarily occasioned some degree of disease or disorder proportional to the degree of the violation. *Experience*, however, would seem to show that the human body frequently preserves [...] the most perfect state of health under a vast variety of different regimens [...] Mr. Quesnai, who was himself a physician, and a *very speculative* physician, seems to have entertained a notion of the same kind concerning the political body, and to have imagined that it would thrive and prosper only under a certain precise regimen, the exact regimen of perfect liberty and perfect justice [...] If a nation could not prosper without the enjoyment of perfect liberty and perfect justice, there is not in the world a nation which could have ever prospered. In the political body, however, the wisdom of nature has fortunately made ample provision for remedying many bad effects as it has done in the natural body, for remedying those of sloth and intemperance”.

(WN IV.ix.28; emphasis added)

Nations have, of course, prospered, and the implication of the passage is that we know this from experience. Thus, the passage suggests an underlying philosophical tension between speculative knowledge and experiential knowledge.

Although Smith would not have had the following passage from TMS in mind (since it was written many years after the above), it is nonetheless reminiscent of the famous “man of system” who appeared in the sixth edition:

“The man of system [...] is apt to be very wise in his own conceit; and is often so enamoured with the supposed beauty of his own ideal plan of government, that he cannot suffer the smallest deviation from any part of it. He goes on to establish it completely and in all its parts, without any regard either to the great interests, or strong prejudices which may oppose it. He seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board. He does not consider that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might chuse to impress upon it”

(TMS VI.ii.2.17)

Smith goes on to condemn such “political speculators” as arrogant, placing themselves and their judgment above that of their fellow-citizens (TMS VI.ii.2.18)⁵. This at least suggests the possibility that Smith felt that the approach to policy was excessively dogmatic and perhaps required excessive power at the center.

However, I would like to suggest that, if we view the “speculative physician passage” in conjunction with his critique of the “capital er-

5. Emma Rothschild shows that Tocqueville, writing in the mid-nineteenth century, expressed similar criticism of the Physiocrats’ political philosophy as they expressed a common Enlightenment “idea that it is appropriate ‘to substitute simple and elementary rules, derived from reason and from natural law, for the complicated and traditional customs’ of particular societies at particular times.” (ROTHSCHILD 2001, p. 18).

ror”, their import lies in what they reveal about Smith’s scientific methodology. In particular, we see that Smith charges the Physiocrats with being speculative, disagreeably metaphysical, and not grounded either in common everyday, or historical, experience. As I will argue in the next section, what we see running through Smith’s commentary is a conception of scientific procedure that places empirical experience in a privileged position *vis-à-vis* pure speculation, and a moral philosophy rooted in the sentiments of ordinary people that will inform the law making of the public spirited legislator.

4. Smith’s Empiricist Natural Law

At first sight these charges might appear paradoxical as Smith himself in the very same passage invokes the “wisdom of nature” in support of his argument. Moreover, he equates philosophy with “speculation” in the very first chapter of WN, and again in the very last chapter he describes the book as a “speculative work” (WN I.i.9; V.iii.68). Indeed, Smith makes extensive use of deductive modeling in WN along with extensive historical materials, and Rashid has argued that in no way can the book be viewed as empirical in the sense of the facts driving the theory (Rashid 1998, p. 81). Moreover, Quesnay too made use of history, indicating that he and Smith are not that far apart methodologically. Smith and Quesnay both being speculative thinkers, i.e., philosophers, the difference, I will argue lies in different conceptions of the nature of the world and how we come to acquire valid knowledge of it, a difference which is actually obscured by the didactic rhetorical style Smith used in WN.

At issue is the methodology of speculation, not its elimination. The thrust of what has been said above about Smith’s critique is that he appears to prefer an empirical, historical methodology to the deductive metaphysics of Quesnay. However, he does engage in extensive analytical modeling, and we also saw him simultaneously deploying the language of natural law, suggesting belief in a divinely created natural order, which we would do well to follow.

This is a much more pronounced feature of TMS than of WN. However, we have already shown how Smith’s moral theory followed the empiricism of Hutcheson and Hume by grounding moral judgement in “immediate sense and feeling”. Smith’s empiricism is evident already in the second paragraph of the work: “as we have no immediate experience of what other men feel, we can form no idea of the manner in which they are affected, but by conceiving what we ourselves should feel in the like situation”. Our imagination is what helps us conceive of another’s feelings and the only way it can do this is “by representing to us what would be our own [feelings], if we were in his

case. It is the impressions of our own senses only [...] which our imaginations copy" (TMS I.i.1.2). Human agents in Smith's theoretical universe learn only from experience, and this must be the starting point for the philosopher, the builder of systems.

It is, therefore, in TMS where we find Smith carefully working out the relation between the divinely created natural order and his empiricist methodology. This is evident in the important distinction between efficient and final causes in his theory:

"In every part of the universe we observe means adjusted with the nicest artifice to the ends which they are intended to produce; and in the mechanism of a plant, or animal body, admire how every thing is contrived for advancing the two great purposes of nature, the support of the individual, and the propagation of the species. But in these, and in all such objects, we still distinguish the efficient from the final cause of their several motions and organizations. The digestion of food, the circulation of blood, and the secretion of the several juices which are drawn from it, are operations all of them necessary for the great purposes of animal life. Yet we never endeavour to account for them from those purposes as from their efficient causes, nor imagine that the blood circulates, or that the food digests of its own accord, and with a view or intention to the purposes of circulation or digestion [...] But though, in accounting for the operations of bodies, we never fail to distinguish in this manner the efficient from the final cause, in accounting for those of the mind we are very apt to confound these two different things with one another. When by natural principles we are led to advance those ends, which a refined and enlightened reason would recommend to us, we are very apt to impute to that reason, as to their efficient cause, the sentiments and actions by which we advance those ends, and to imagine that to be the wisdom of man, which in reality is the wisdom of God".

(TMS II.ii.3.5)

Without entering into a discussion of teleology in Smith, there are two points here relevant to the present argument. Firstly, there is a natural order of things given by God, which may be discoverable by a 'refined and enlightened reason'. Quesnay would surely assent to this. However, secondly, we must account for observed, empirical phenomena from their efficient causes, not their final causes. In the realm of human behavior and society, people can only act on what they know in conjunction with their natural passions or feelings. What they know is entirely derived from actual experience, and so it is from experience that we must derive the efficient causes of human behavior. Knowledge is discovered inductively. The discourses of natural law and empiricism seem to coexist here in apparent harmony.

The invisible hand is without question the most famous expression of Smith's view of the relation between efficient and final cause. It has frequently been interpreted as an expression of Smith's optimistic belief in divine Providence, and, thus, an important expression of his belief in a divinely appointed natural order. Despite a growing consensus that Smith's theory is wholly secular (Rothschild's provocative analysis is a most recent example), this view persists in the secondary

literature (Rothschild 2001, pp. 115-166). Rashid is but one example in recent literature of the Providential view, which he also attributes to Stewart (Rashid 1998, pp. 55, 65; see also Kleer 1995 and Hill, 2001).

Elsewhere I have treated the invisible hand as one expression of the so-called “law of unintended consequences” (Young 1997). As such it is an integral feature of Smith’s empiricist method, since his social agents can only act on the basis of the knowledge they acquire from personal experience. Thus, they cannot be motivated to action from a knowledge of the social consequences that emerge from actions taken in conjunction with those of their fellows. Only the philosopher, not the agent, can possess such knowledge.

A fuller refutation of the Providential view would be the subject of another paper. Suffice it to say here that to the extent that there is a causal connection between Smith’s theology (whatever it was) and his philosophy it runs from the latter to the former. As he argues in his “History of Ancient Physics” (Astronomy and Physics), “as ignorance begot superstition, science gave birth to the first theism that arose among those nations, who were not enlightened by divine Revelation” (Astronomy and Physics 9). The idea of a unified order derived from scientific thought is what produced the idea of a single creator in the minds of the ancients⁶. Invisible hand explanations are, thus, an expression of Smith’s empiricist natural law. Ultimately they separate Smith from Quesnay, as is apparent in the fact that for Quesnay the natural order of economic liberty had to be imposed from above, while Smith’s is a spontaneous order emerging from the behavior of individuals as they engage in the business of ordinary social life.

D.D. Raphael pointed out some years ago that Smith’s natural law is a “genuinely empiricist natural law” (1972-1973, p. 88). This point is of the first importance, and it is one that is frequently over-looked in the secondary literature on Smith. It is the key to understanding the juxtaposition in Smith of the languages of natural law and empiricism, two philosophical approaches that are usually opposed to each other, the Physiocrats being a case in point. Thus, it is also the key to understanding the nature of Smith’s critique of the Physiocrats and why he found their metaphysics so disagreeable.

Consider the area of positive law as another example. At the end of TMS there is a long paragraph in which Smith discusses the relation of positive to natural law:

“Every system of positive law may be regarded as a more or less imperfect attempt towards a system of natural jurisprudence [...] To prevent the confusion which would attend upon every man’s doing justice to himself, the magistrate, in all governments that have acquired any considerable authority, undertakes to do justice to all, and

6. Spencer Pack offers a similar interpretation of the relation between the invisible hand and Smith’s theology (1995).

promises to hear and redress every complaint of injury. In all well-governed states too, not only judges are appointed for determining controversies of individuals, but rules are prescribed for regulating the decisions of those judges; and these rules are, in general, intended to coincide with those of natural justice. It does not, indeed, always happen that they do so in every instance. Sometimes what is called the constitution of the state, that is, the interest of the government; sometimes the interest of particular orders of men who tyrannize the government, warp the positive laws of the country from what natural justice would prescribe. In some countries, the rudeness and barbarism of the people hinder the natural sentiments of justice from arriving at that accuracy and precision which, in more civilized nations, they naturally attain to [...] In no country do the decisions of positive law coincide exactly, in every case, with the rules which the natural sense of justice would dictate. Systems of positive law, therefore, deserve the greatest authority, as the records of the sentiments of mankind in different ages and nations, yet they can never be regarded as accurate systems of the rules of natural justice”.

(TMS VII.iv.36)

He then goes on in the next paragraph to suggest that the lawyers of the past might have used these records of both the imperfections and the improvements of the systems of positive law to derive a system of natural jurisprudence, the “theory of the general principles which ought to run through and be the foundation of the laws of all nations” (TMS VII.iv.37). However, Grotius in the previous century was the first to make such an attempt.

We see here certain basic elements of Smith’s approach to natural law. First, the natural must be rooted in the natural sentiments of the people. The ultimate data of a system of moral philosophy, and, therefore, its test of validity are the sentiments of mankind as they arise in everyday life. As Charles Griswold has recently expressed it Smith was “...a devoted and resourceful defender of the standpoint of ordinary life...” (Griswold 1999, p. 13). Thus, “immediate sense and feeling” are the source of our first perceptions of right and wrong (TMS VII.iii.2.7). This also explains an important difference between systems of natural philosophy and those of moral philosophy. Since the latter purport to explain our own sentiments and feelings, and since we have introspective knowledge of ourselves, all systems of moral philosophy must have had some element of truth in them, otherwise

“The author who should assign, as the cause of any natural sentiment, some principle which neither had any connexion with it, nor resembled any other principle which had some such connexion, would appear absurd and ridiculous to the most injudicious and unexperienced reader”.

(TMS VII.ii.4.14)

Systems of natural philosophy, such as Descartes’ vortices, that have no element of truth, however, can gain acceptance among the learned for quite long periods of time (*ibid.*).

Second, we see an historical dimension. Since knowledge of how to embody the natural sense of justice into systems of positive law

is accumulated through long experience, we would expect each system to be imperfect. Moreover, as circumstances change we would expect these natural sentiments to result in a changing pattern of specific general rules. Tracing these changes is precisely what Smith does, for example, in the *Lectures* when he explains the historical evolution of the concept of property through the four stages of history. As the mode of subsistence progresses from hunting and gathering through pasturing, agriculture, and commerce, the concept of property gradually enlarges. The natural sentiment of injury, then, lies behind an ever-widening circle of things in which a person can be said to possess property, beginning with animals killed in the hunt and ending with buildings, structures, and even large areas of land.

Third, the historical dimension is, however, complex as each system of positive law is imperfect. This is partly the result of the fact that the underlying conditions of daily life are changing, causing a lagging effect, but it is also the result of certain evils rooted in historical accidents. One such accident, or series of accidents, is the subject of WN Book III where Smith shows the distortion of the “natural progress of opulence” following the fall of Rome. The result was constitutions and interests that “warp” the positive law. Nonetheless, there is an embryonic theory here of historical progress across widely separated stages of development. The laws and manners of the civilized are clearly closer to the natural than those of the barbaric nations. Thus, it is possible for the philosopher to discern common patterns in the historical record of these systems and from these to develop a natural jurisprudence, the theory of the general principles of the law (Skinner 1996, p. 73).

Both Quesnay and Smith made extensive use of historical facts, and they both took history quite seriously. Moreover, as Rashid has argued Smith’s use of the historical record was not always accurate (Rashid 1992). However, there is an important contrast here, rooted in their different conceptions of how we come to know the natural law as well as how the sovereign should use such knowledge. Recall that Quesnay seemed to find no value in studying systems of jurisprudence as a method for discovering the law of nature. For Smith, the historical record is extremely valuable. Systems of positive law “deserve the greatest authority” even though they are imperfect. They provide the data from which a system of natural jurisprudence can be philosophically constructed. There is, of course, the normative dimension as natural jurisprudence is the theory of the general principles that “ought to run through and be the foundation of the laws of all nations”. These principles will inform the process of intervention whereby the constitutions can be improved and the accidents of history can be put right. However, Smith’s practical advice to the reformer is moderation and caution.

“The man whose public spirit is prompted altogether by humanity and benevolence, will respect the established powers and privileges even of individuals, and still more those of the great orders and societies, into which the state is divided [...] He will accommodate, as well as he can, his public arrangements to the confirmed habits and prejudices of the people; and he will remedy as well as he can, the inconveniences which may flow from the want of those regulations which the people are averse to submit to. When he cannot establish the right, he will not disdain to ameliorate the wrong; but like Solon, when he cannot establish the best system of laws, he will endeavour to establish the best that the people can bear”.

(TMS VI.ii.2.16)

Once again note the contrast with Quesnay whose ideal statesman was an oriental despot. Smith, the empiricist, felt that in an imperfect world, even once the natural law is provisionally discovered, the statesman who would remake the world in its image must still respect the manners of the people. Although his attack on the existing system was “very violent”, his advice to the legislator was one of moderation (CORR 208)

In addition to this sort of moderation in the face of popular prejudice, Smith outlined a fairly extensive role for the government which arose out of market failure, and there is some evidence to suggest that he would condone government interference in the market on the grounds of equity. Consider, for example, the problem of food scarcity and famine. His advocacy of economic freedom and the inviolability of private property in the grain trade is well known. As Rothschild points out, “Their [Smith, Turgot, and Condorcet] arguments have been interpreted ever since as a simple prescription that commerce is good and government bad” (Rothschild 2001, p. 72). However, Smith’s position on free trade in grain is not absolute as he specifically allows that exceptions might be made to prevent famine by restricting grain exports in small republics. In addition, the sovereign is given license to intervene in the case of “the most urgent necessity” (WN IV.v.b.39). As Barry Gordon and I have argued, this is a case of government intervention in the system of natural liberty on the grounds of insuring some minimum degree of distributive justice (Young and Gordon 1996, pp. 21-22; Young 1997, pp. 150-153). It also suggests that Smith would have approved of Turgot’s policies, which included selective interference in markets other than for grain, designed to confront the crisis in Limousin in 1770 (Rothschild 2001, p. 81). It is significant in this context to remember that Turgot shared Smith’s sentiments about the Physiocratic reliance on despotic government and their general approach to economic policy. The policy of the second best when the first is not available is clearly consistent with Smith’s overall approach to economic policy. This, I would suggest, is one of the practical policy implications of Smith’s empiricist natural law and it is one that differentiates him from the Physiocrats.

4. Conclusion

It is Smith's *WN* and not Stuart's *Principles* that history has favored as the founding text of the modern discipline of economics. The aesthetic and scientific appeal of Smith's great book owes much to his, rather than Stuart's, ability to integrate the elegant model of the *Tableau* into the structure of his theoretical economics. His use of the circular flow, fixed and circulating capital, productive and unproductive labor, and net revenue allowed him to produce a coherent, yet simple, model of capital accumulation as the mainspring to growth. Using Turgot's innovations he was able to link this with the value and distribution theory of Book I, with the "natural progress of opulence" of Book III, and the economic aspects of the critique of mercantilism in Book IV. He was thus able to give a coherence and structure to the whole that Stuart's book lacked, and which was highly satisfying to the imagination. In light of this the thought that Smith was "scornful" of the Physiocrats or that he failed to grasp the importance of the *Tableau* seems most unlikely. It is more probable that the *Tableau* hit him with the force of a revelation. Whether he should have been more generous in his citations, particularly of Turgot, is another question.

The view that Smith failed to do justice to the Physiocrats may have an element of truth in that Smith was highly critical of them at the same time that he used much of their theoretical system. In this paper I have attempted to offer an alternative reading of Smith's critique of the Physiocrats, particularly of Quesnay. In my view the underlying theme of Smith's assessment of both the "capital error" of the system and of the "very speculative physician" is Smith's empiricist conception of natural law, which stands in contrast to Quesnay's rationalist conception. Smith's system requires a Solon, Quesnay's an oriental despot, in the place of the sovereign. These divergent philosophical underpinnings and their connection to Smith's critique do not seem to be well understood among historians of economics.

Smith's use of the discourse of natural law may have misled historians into believing that Smith's system is closer to that of the Physiocrats than it really is. For Smith, knowledge of the natural, whether in physical or moral philosophy, derives from experience. As such it is always imperfect, yet tending over time toward improvement. Systems of natural jurisprudence are possible if we examine the general principles which systems of positive law have in common. These principles, once discovered, can be used to reform the imperfections in existing systems that have arisen either because they are lagging behind the natural process of development and/or because accidents of history have left in place laws and constitutions that no longer serve their purpose, or that have simply warped the positive law. Unlike Quesnay's despot, Smith's statesman must be sensitive to the manners of the people. In deference to those manners, he will seek the

second best whenever the first best is not available. Thus, Smith's achievement may be seen as the development a conception of the natural order that is both scientifically appealing to the imagination while providing a normative basis for intervention that leads to moderation, flexibility, and respect for the sentiments of the people.

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