**Beyond Enlightened Common Sense: How Economics Became a Science**

*(A Draft)*

**Oleg Ananyin**

*National Research University “Higher School of Economics” – Moscow, Russia*

**I. Introduction**

Economic knowledge gained scientific status in the Age of Reason. From the chronological point of view this claim is widely accepted (see Gronewegen 2002), but the causal links between the two phenomena are usually overlooked. Historians of economic thought tend to take the emergence of economic science for granted treating this fact as an evolutionary outcome of a long history of knowledge accumulation. The Enlightenment scholarship conventionally identifies emerging political economy with the rise of ‘laissez faire’ ideology, conceiving it rather within the framework of political philosophy, than that of science. In both cases the transition from common sense reasoning to science drops out of sight.

The paper aims at reconstructing the context and logic of the formation of scientific economics as an integral part of the Enlightenment science project. It is suggested that the birth of political economy was an outcome of heterogeneous trends unleashed by economic, political, and intellectual changes during the Enlightenment: received views of economic and political order, images of history and science were contested clearing field for new ideas and creating demand for objective and reliable knowledge. It is shown that political economy took its shape as a result of transition from traditional to enlightened common sense and from common sense to science. Enlightenment philosophy and contemporary natural sciences served as important sources of inspiration for the leading economic writers from William Petty to Adam Smith in their efforts to establish the new discipline.

**Section II** of the paper summarises the state of the art in economic thought before the Enlightenment, **section III** considers development of economic ideas in a broader intellectual context, while **section IV** is focused on economic thought in the context of contemporary science. **Section V** deals with the controversy concerning the path of maturing of economic reasoning and its transformation into a scientific discipline; **section VI** concludes above presented arguments.

**II. Pre-Enlightenment economic thought**

In Europe the Age of Reason or the Enlightenment had begun in the second half of the XVII century and lasted until the French revolution of late XVIII century. It was a period of profound changes in intellectual atmosphere marked by emancipation from religious dogmas, growing faith in human reason, scientific and social progress, as well as by first blueprints of liberal political and economic reforms (see, e.g.: Bristow, 2011).

In the XVII century economic thought existed in two different forms (Schumpeter, 1954). On the one hand, there was a type of economic reasoning within moral philosophy, a long established area rooted in the scholastic tradition; on the other hand, there emerged a new stream of thought later to be called mercantilism. The former departed from theological doctrines coming back to sophisticated scholastic interpretations of Aristotle and was developed by adapting those doctrines to the changing social conditions of growing capitalism. The latter – mercantilist thought – represented a common sense response to the same social challenges: less sophisticated but free from the tenets of scholasticism and therefore much more open to deal with new phenomena, problems and arguments.

It might be conjectured that duality of pre-Enlightenment economic thought had important implications: it fostered the process of secularization of economic discourse, making economic writers well equipped to join Enlightenment movement; it helped to infuse economic ideas into a broader philosophical discussions of enlightened political order, and, at the same time, it provided grounds for the idea of economic knowledge as a separate field.

**III. Towards enlightened social order**

Rising authority of human reason was founded on remarkable progress of sciences, such as mathematics, physics, chemistry, geography, etc. Human mind proved its ability to discover laws of nature. Much less, however, was known about laws of the social realm. In the middle of the XVII century Thomas Hobbes claimed that passionate – i.e. non-rational – humans needed their Leviathan to save them from self-destructing “*Bellum omnium contra omnes*” (the war of all against all). Hobbesian theory was in accord with practices of then prevalent absolutist monarchies, but lacked logical coherence being based on the assumption of a rational ruler. The case of uncontrolled and violent passions of a ruler – not unknown from historical accounts – stimulated Enlightenment thinkers to look for conditions and political structures that would eliminate or reduce such threats (Rosanvallon 1979).

Search for rational social order led Enlightenment thinkers to appeals to human perfection (Shaftesbury), or hopes in *“doux commerce”* (Savary), and – some later – to the proposals of legal reforms establishing separation of powers (Montesquieu). None of these prospects was quite persuasive because of lack of reliable mechanism of implementation. It was the economic idea of self-regulated markets that helped to fill in the gap in the Enlightenment worldview (Hirschman 1977; Rosanvallon 1979). Adam Smith’s metaphor of “the invisible hand” suggested that self-interested behaviour is neither irrational, nor vicious. To the contrary, a market is such an economic mechanism that generates incentives to reconcile individual behaviour with public purpose. This doctrine fitted well the mood of the Age of Reason providing a foundation for the belief in a rational social order for rational individuals.

The point to be stressed here is that the idea of self-regulated social order had emerged within both currents of economic reasoning, although in quite different ways. Within scholastic tradition this trend found its most developed expression in Jansenist XVII-century heretic movement in France. Jacob Viner (1978, p.135-136) has paraphrased Pierre Nicole, one of its leaders, saying that “Enlightened self-interest, through the medium of commerce resting on mutual exchange of services, meets all the needs of earthly life without any intervention of charity… [Self-interest] can correct all the external faults of the world and bring into existence a well-ordered society if only it is universally enlightened. However corrupt such a well-ordered society would be internally and in the eyes of God, there would be nothing in its external appearance which could be more civil, more just, more peaceful, more honest, and more generous”. Viner continued that except for moral qualification of human behaviour, Jansenist arguments were quite similar to those of Bernard Mandeville in his famous “*Fable of the bees*”, an acknowledged predecessor of Adam Smith’s famous metaphor. Despite prosecutions Jansenist movement survived in XVIII century, and its followers contributed to the formation of French Enlightenment economics, especially through the famous Gournay circle (Orain 2014).

Mercantilist literature by the end of XVII century has undergone a rapid process of maturation too. Many earlier simplifications were abandoned including belief in omnipotence of government regulation. Leading representatives of mercantilism, such as Serra, Malynes, Barbon, not to say of Dudley North and Petty, were quite aware of self-regulating properties of markets, although explanation of this mechanism left to later authors – Boisguilbert, Cantillon, and finally, Adam Smith. Unlike Jansenists for whom self-regulated market was rather a pretext to oppose well-ordered appearance and concealed moral vices of humans, economists were trying to show how this well-ordered society is functioning through price fluctuations and mutual adjustments of producers’ efforts and consumers’ aspirations.

As a result, the enlightened political economy of the XVIII century (see: Cardoso, 2015) embraced the legacies of both currents of economic reasoning being conscious of either moral implications, or economic mechanisms underlying market interactions.

**IV. Towards enlightened science**

Another imperative of the Age of Reason was to make social knowledge scientific. First steps along this path were made earlier by such authors as Machiavelli and Hobbes who redirected the focus from normative moral reasoning about due conduct to more plausible picture of human nature. But it was a shift in assumptions, not in methods of reasoning. Successes of natural sciences urged reassessment of received practices of social inquiry.

Yet new image of ‘true science’ was far from established. Leading Enlightenment scientists were more or less common in their rejection of scholasticism, not in their positive programmes. Standard division between Baconians and Cartesians (see, e.g., Pribram 1983), captures but one of the problems: the former emphasised experience as the source of knowledge, the latter – the power of mathematical coherence in reasoning. Even the legacy of Isaak Newton left enough space for alternative interpretation of the ‘best practices’, based on either his “*Principia…*”(1687) which method was not far away from Cartesian pattern, or on his “*Optics*”(1704) more consequently based on experimental method.

The next problem for moral philosophers was how to apply new scientific approaches in their field, and hence, how radically scientific practices should be altered? Contested views of science and unsettled subject area of social inquiry allowed for co-existence of various competing research programmes and even blueprints of social science: theoretical or experimental, descriptive or prescriptive, seeking general laws or policy-oriented. Some of these approaches retained, at least, methodological continuity with late scholastics: “[t]he assertion of natural rights in the political writings of authors such as John Locke and Rousseau, and in crucial documents of the American and French revolutions, owed more to moral doctrines of ‘natural law’, which concerned the just political order, than to Cartesian or Newtonian laws of nature” (Porter 2003). Others could be considered as forerunners of “physics envy” stance in social sciences, while in most cases Enlightenment scholars were eager to combine ‘evidence’ of their postulates and rigour of their arguments (see, e.g., Coleman 1995).

Revolutionary approach was most vividly represented by William Petty. One of founding members of the Royal Society and an admirer of Francis Bacon, Petty saw his own place in science as follows: “Archimedes had algebra 1900 years ago, but concealed it… Vieta, DesCartes, Robertval, Harriot, Pell, Oughtread, van Schoten and Dr. Wallis have done much in this late age. It came of Arabia by the Moors into Spain, and from thence hither, and W[illiam] P[etty] has applied it to other then purely mathematical matters, viz.: to policy, by the name of Political Arithmetic, by reducing many terms of matter to terms of number, weight, and measure, in order to be handled mathematically”. (Cit. from: Letwin 1963, p.130).

Cartesian pattern of science served as guidance to Dudley North, an important English economic writer of the late XVII century, as well as to many French economists of the XVIII century, including Quesnay (see: Letwin 1963; Pribram 1983; Mirowski 1989). Newtonian physics was an exemplary science for Adam Smith who was called by some of his contemporaries “the Newton of the moral sciences” (Redman 1997). The list of connections of Enlightenment economists with leading scientists can be easily extended[[1]](#footnote-1).

The weight of ‘scientific’ imperative tended to grow through time. Letwin’s comparison of the two editions of the same essay authored by an English mercantilist writer John Cary captures the timing of the shift from traditional to science-based discourse in economic thought: while “in 1695 he opened his essay on trade by referring to ’the general notions’ of trade, by which he meant known theoretical principles of trade”, in the revised and enlarged version of the essay from 1717, he updated the formulation: “Trade has its principles, as other sciences have”. (Cit. from: Letwin 1963, p.218).

**V. Continuity or break?**

Was the transition from pre-Enlightenment economic thought to the science of political economy an evolutionary piecemeal process, or it involved a break with earlier traditions? In the historiography of economic science one would find diverging answers to this question. To be sure, changes of the range of ‘episteme breaks’ do not happen overnight. Rather they mean that the course of development passes through a bifurcation point indicating a switch to a new trajectory.

Schumpeter saw this process as an evolutionary movement toward the first ‘classical condition’ (Schumpeter 1954). Others associated emergence of economic science with certain theoretical innovations, such as the introduction of the concept of ‘capital’ (Eagly 1974) or the concept of ‘surplus’ (Aspromourgos 1996). Still others, such as Michele Foucault and Philip Mirowski, claimed that economic science was shaped as a part of more global and radical intellectual turns: either within the ‘episteme break’ introducing pure cognitive forms instead of classifying reasoning (Foucault), or through the adaptation of the ‘conservation principle’ borrowed from natural sciences (Mirowski). Foucault dated the ‘episteme break’ at the end of the XVIII century placing physiocratic movement before it, while for Mirowski the physiocratic ‘circular flow’ approach is, vice versa, an indication that economic thought entered the phase of modern science.

Closer look at these two historical reconstructions suggests that difference between them are due mainly to one feature of the physiocratic theory, namely its graphical, or ‘Tableau’-type presentation which in Foucault’s scheme belonged to the earlier ‘episteme’. Assuming, however, that this feature does not deny that another element of this theory, the ‘circular flow’ doctrine can and should be interpreted as a ‘pure cognitive form’, both Foucault’s and Mirowski’s reconstructions seem to focus on the same phenomenon of the intellectual history, even if under somewhat different angles.

They point out at the emergence of substance, or essentialist theories based on consciously constructed ideal objects, or models. This dual innovation marked a radical epistemological break with alternative patterns of the emerging economic science[[2]](#footnote-2). Concept innovations, such as ‘surplus’ or ‘capital’ were nothing else but building blocks of this basic epistemological breakthrough.

**VI. Conclusion**

During the Enlightenment economic thought had undergone profound transformation. First, it grew up from the common sense mercantilism of XVIth and early XVIIth centuries to the enlightened common sense reasoning of the XVIIIth century capable of making crucial contributions to the Enlightenment rationalist worldview, especially with its ideas of self-regulated markets symbolised in the Smith’s metaphor of the ‘invisible hand’.

During the same period economic thought passed through a bifurcation point separating enlightened common sense from science. The pattern of science that defined its first canon – the classical political economy – was in fact a version of Cartesian science. It was shaped in the works of Richard Cantillon, Francois Quesnay and Adam Smith, and was fully established already at the beginning of the XIX century, especially due to David Ricardo. Its theoretical core consisted of the value theory and the circular flow model of economic process[[3]](#footnote-3).

Was it enough to develop the ‘invisible hand’ doctrine to establish economics as a science? Positive answer to this question is widespread. Thus, according to *The Stanford Encyclopedia of Philosophy,* «…Within the context of the Enlightenment, economic freedom is a salient interpretation of the individual freedom highly valued in the period. Adam Smith, a prominent member of the Scottish Enlightenment, describes in his *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776) some of the laws of civil society, as a sphere distinct from political society as such and thus contributes significantly to the founding of political economy…» (Bristow 2011). Yet this view is ahistorical and misleading. The very association of the scientific nature of political economy with the idea of self-regulated markets is much more recent than the idea itself. As has been noted, the origins of this idea were either theological, or pragmatic. Smith’s metaphor of ‘the invisible hand’ is but an indication of his continuity with the former tradition. Moreover, the use of a metaphor to render author’s idea might be interpreted as author’s awareness of the lack of sufficient arguments in its favour. Indeed, subsequent history of economic thought informs that it took additional 200 years to elaborate accurate theory to provide at least partial support for Smith’s famous hypothesis.

No doubt, that public acceptance of these ideas was helpful for the establishment of political economy as a new scientific discipline. But in the Age of Reason it was hardly sufficient: political economy gained its scientific status as a result of selection process from a set of epistemological projects and according to criteria of contemporary scientific community.

The birth of economics as a science is much more than just an episode in the history of a particular discipline. It was the first attempt to expand the Enlightenment vision of science beyond natural sciences, to adapt the norms of modern science to studies of the human world thus emancipating the social thought from the tenets of both theology and common sense.

***References***

Aspromourgos, T. (1996). *On the Origins of Classical Economics: Distribution and Value from Petty to Adam Smith*. L.: Routledge.

Bristow, W. (2011). "Enlightenment", *The Stanford Encyclopedia of Philosophy* (Summer 2011 ed.), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2011/entries/enlightenment/>.

Cardoso, J.L. (2015). Liberalism and enlightened political economy // *European Journal of the History of Economic Thought*, vol. 22 (6), pp. 934-947.

Coleman, W.O. (1995). *Rationalism and Anti-Rationalism in the Origins of Economics. The Philosophical Roots of 18th Century Economic Thought*. Edward Elgar.

Coleman, W.O. (1996). How theory came to English classical economics // *The Scottish Journal of Political Economy*. Vol.43 (2), pp. 207-228.

Collini, N., D.Winch, and J.Burrow. (1983). *That Noble Science of Politics. A Study in Nineteenth-century Intellectual History*. Cambridge: Cambridge University Press.

Eagly, R.V. (1974). *The Structure of Classical Economic Theory*. NY: Oxford University Press.

Foucault, M. (1966). *The Order of Things. An Archeology of the Human Sciences*. A translation of *Les Mots et les choses*.

Groenewegen, P. (2002). ***Eighteenth Century Economics***. L.: Routledge.

Hirschman, A. (1977). ThePassions and the Interests*: Political Arguments for Capitalism before Its Triumph*. Princeton: Princeton University Press.

Letwin, W. (1963). *The Origins of Scientific Economics. English Economic Thought 1660-1776.* L. and NY: Routledge.

Mirowski, Ph. (1989). *More Heat than Light*. Economics as Social Physics, Physics as Nature’s Economics. Cambridge: Cambridge University Press.

Orain, A. (2014). The second Jansenism and the rise of French eighteenth-century political economy // *History of Political Economy*, Vol. 46 (3), pp. 463-490.

Porter, T.M. (2003). Genres and objects of social inquiry, from the Enlightenment to 1890 / *The Cambridge History of Science. Vol.7. The Modern Social Sciences*. Ed. by T.M. Porter and D. Ross. Cambridge: Cambridge University Press.

Pribram, K. (1983). *A History of Economic Reasoning*. Baltimore and L.: The John Hopkins University Press.

Redman, D. A. (1997). *The Rise of Political Economy as a Science: Methodology and the Classical Economists*. MIT Press, Cambridge, Mass.

Rosanvallon, P. (1979). *Le Capitalisme utopique. Histoire de l'idée de marché*, Le Seuil, coll. “*Sociologie politique*”.

Schabas, M. (2007). *The Natural Origins of Economics*. University of Chicago Press.

Schumpeter, J.A. (1954). *History of Economic Analysis*. Oxford: Oxford University Press.

Viner, J. (1978). Secularizing tendencies in Catholic social thought from Renaissance to the Jansenist-Jesuit controversy. / In: Viner, J. *Economics and Religion*. Chapter III. // *History of Political Economy*, Vol.10 (1).

1. “What enabled classical political economy to undergo secularization … was its close and intimate ties with natural sciences” (Schabas 2007, p.40). [↑](#footnote-ref-1)
2. W. Coleman (1996) asked the right question: “How may one explain … puzzling emergence of a theoretical economics from an empirical parent?” meaning by the latter empiricist aspirations of the Enlightenment science. However, his solution of the puzzle referring to discrepancy between declared and actual methodologies seems to simplify the case. It is true that Cartesian influence was stronger on the actual methodology of the Enlightenment economists, than on the aspired one, but Coleman tends to exaggerate the homogeneity of the economic thought in the phase of science formation underestimating co-existence of competing epistemological doctrines and practices. [↑](#footnote-ref-2)
3. It is noteworthy that at the very beginning of the XIX century even close followers and advocates of Smith’s theory, such as Dugald Stewart, were aware of deficiencies of the “Wealth of Nations” as an exposition of the new science and referred to Physiocrats to fill in the gaps: “Stewart’s pupils were introduced to the *Wealth of Nations* via the writings of the *Economistes*, and they were taught to treat some of Smith’s ‘metaphysical’ distinctions with reserve” (Collini e.a 1983). [↑](#footnote-ref-3)