

Terra Economicus, 2019, 17(3), 78-88
DOI: 10.23683/2073-6606-2019-17-3-78-88

ADAM SMITH'S SEVENTEENTH-CENTURY SOURCES

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Citation: Taylor, J. A. (2019). Adam Smith's seventeenth-century sources. *Terra Economicus*, 17(3), 78–88. DOI: 10.23683/2073-6606-2019-17-3-78-88

Joseph Schumpeter said that Adam Smith was sincere and very influential, but Schumpeter also said that Smith's "Wealth of Nations" nevertheless was neither original nor brilliant. As for moral philosophy, Schumpeter hardly read "The Theory of Moral Sentiments". Smith was an Aristotelian and a scholastic, Schumpeter said. These interpretations of Smith became standard, but were they correct? This paper argues instead that Smith was brilliant and original because his moral philosophy provided a capstone or crowning argument for seventeenth-century political economy. This connection of Smith to seventeenth-century sources is not entirely new of course. Karl Marx already said that "Wealth of Nations" depended largely on seventeenth-century writers such as Sir William Petty. Yet Marx saw only part of the picture because he, like Schumpeter later, undervalued Smith's moral philosophy. Predecessors in seventeenth-century political economy deeply influenced Smith, true, but he was not a passive recipient of this seventeenth-century influence. Instead, this paper argues, Smith labored to free political economy from its seventeenth-century reputation for atheism and immorality. Petty and his friend Thomas Hobbes and many other seventeenth-century practitioners of political economy had an infamous reputation as being empiricists who were hostile to moral philosophy in general and to Christian theories of right action in particular. Smith freed empirical political economy from its reputation for atheism.

Keywords: Adam Smith's "Theory of Moral Sentiments"; Joseph Schumpeter; Karl Marx; Sir William Petty

JEL classifications: B12

АДАМ СМИТ И ИСТОЧНИКИ XVII ВЕКА

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Цитирование: Тейлор, Д. А. (2019). Адам Смит и источники XVII века // *Terra Economicus*, 17(3), 78–88. DOI: 10.23683/2073-6606-2019-17-3-78-88

Отдавая должное искренности и влиятельности Смита, Йозеф Шумпетер считает «Богатство народов» не особенно оригинальной и выдающейся работой. Очевидно, Шумпетер не слишком внимательно прочел «Теорию нравственных чувств». Он называет Смита последователем Аристотеля и схоластом. Такая оценка Смита стала общепринятой, но является ли она истинной? В данной статье мы попробуем показать, что мысль Смита была поистине оригинальной и выдающейся, поскольку его моральная философия стала кульминацией политэкономии XVII в. Идея связывать Смита с XVII в. не нова. Еще Маркс указывал на то, что «Богатство народов» во многом опирается на труды авторов XVII в., например, Уильяма Петти. Но Маркс был не совсем прав, поскольку он, как и Шумпетер, недооценивал моральную философию Смита. Действительно, работы экономистов XVII в. сильно повлияли на Смита, но он не был лишь пассивным объектом этого влияния. Смит пытался освободить политическую экономию XVII в. от атеизма и имморализма. Петти, его друг Томас Гоббс и многие другие авторы работ по политэкономии считались эмпириками, враждебными по отношению к моральной философии в целом и к христианской морали, в частности. Смит же освободил эмпирическую политэкономия от атеистической репутации.

Ключевые слова: «Теория нравственных чувств» Адама Смита; Йозеф Шумпетер; Карл Маркс; Уильям Петти

I. Marx Provided Astute Commentary on Adam Smith's *Wealth of Nations*

Karl Marx was a highly educated man and a highly intelligent man, and he was largely right about Adam Smith's sources for *Wealth of Nations*. Marx was right, but he did not go far enough, and he saw only half the picture. He did not see that Smith's moral philosophy was a correction to faults in seventeenth-century British political economy.

Marx did not finish or publish a final volume of his monumental work *Capital*, but he planned that final volume, leaving many notes and stray papers connected with it. Among these papers were remarks that he had made earlier from his careful reading of seventeenth-century writers. In these remarks, Marx made a correct but an incomplete analysis of Smith's debt to Sir William Petty.

Marx thought that Smith's dependence on Petty came about in this way. Surplus value and the division of labor were the crucial founding notions of Smith's economic science, Marx said. If you will but consult the titles of Smith's opening chapters of *Wealth of Nations*, you can see clearly that Marx was correct in that claim. Here are the titles.

Chapter 1: Of the Division of Labour

Chapter 2: Of the Principle which gives Occasion to the Division of Labour

Chapter 3: That the Division of Labour is limited by the Extent of the Market

Chapter 4: Of the Origin and Use of Money

Chapter 5: Of the real and nominal Price of Commodities, or of their Price in Labour, and their Price in Money

Chapter 6: Of the component Parts of the Price of Commodities

Chapter 7: Of the natural and market Price of Commodities

Chapter 8: Of the Wages of Labour

Chapter 9: Of the Profits of Stock

Chapter 10: Of Wages and Profit in the different Employments of Labour and Stock

Chapter 11: Of the Rent of Land

Marx said these two notions of surplus value and the division of labor were the foundation of Smith's whole book. As you can see, this is indisputable.

You may also consult the writings of Sir William Petty to see there what Marx said were the original version of these key arguments about surplus value and the division of labor. Here is one passage by Petty which Marx thought was crucial. It was from Petty's 1662 essay on corn rent and money rent.

"Suppose a man could with his own hands plant a certain scope of Land with Corn, that is, could Digg, or Plough, Harrow, Weed, Reap, Carry home, Thresh, and Winnow so much the Husbandry of this Land requires; and had withal Seed wherewith to sowe the same. I say, that when this man hath subducted his seed out of the proceed of his Harvest, and also, what himself hath both eaten and given to others in exchange for Clothes, and other Natural necessaries; that the remainder of the Corn is the natural and true Rent of the Land for that year" (Petty, 1986: 43).

Division of labor and surplus value: Marx said that Petty was the brilliant and original thinker who first joined these two key notions together, and Marx also said that by doing so Petty laid the firm foundation of economic science. In other words, Petty was the original and seminal economic writer, Marx said, with Smith later borrowing and making current Petty's crucial idea – the pairing of surplus value and division of labor. Adam Smith's chief contribution to economic science was then mainly to repeat and make current the work that Petty had already done in joining these notions together (Marx, 1952).

II. Joseph Schumpeter

Born in what is now the Czech Republic and educated in Vienna where he served briefly as finance minister after World War I, Joseph Schumpeter moved to the United States and taught economics at Harvard University for many years. Schumpeter's *History of Economic Analysis*, published in 1954, was one of the most influential accounts ever written on the subject (Schumpeter, 2006).

Schumpeter praised Smith's sincerity in *Wealth of Nations*. Smith deserved his success by reason of this sincerity and by reason of hard work and his knowledge of what would appeal to his readers, Schumpeter said. However, Smith was successful precisely because he was himself neither brilliant nor original, continued Schumpeter. Here is a typical passage. "Smith's very limitations made for success, [said Schumpeter]. Had Smith been more brilliant, he would not have been taken so seriously. Had he dug more deeply, had he unearthed more recondite truth, had he used difficult and ingenious methods, he would not have been understood. But he had no such ambitions; in fact he disliked whatever went beyond plain common sense. He never moved above the heads of even the dullest readers. He led them on gently, encouraging them by trivialities and homely observations, making them feel comfortable all along. While the professional of his time found enough to command his intellectual respect, the educated reader was able to assure himself that, yes, this was so, he too had always thought so; while Smith taxed the reader's patience with his masses of historical and statistical material, he did not tax his reasoning power. He was effective not only by virtue of what he gave but

also by virtue of what he failed to give. Last but not least, argument and material were enlivened by advocacy which is after all what attracts a wider public: everywhere, the professor turned his chair into a seat of judgment and bestowed praise and blame. And it was Adam Smith's good fortune that he was thoroughly in sympathy with the humors of his time. He advocated the things that were in the offing, and he made his analysis serve them" (Schumpeter, 2006: 180).

Schumpeter's assessment of Adam Smith's *Wealth of Nations* remains current, but many scholars have criticized it nevertheless. According to a recent and particularly persuasive essay, economists have been especially reluctant to accept two points of Schumpeter's analysis of Smith. First, Schumpeter said that *Wealth of Nations* was not original, as we see in the above quotation from Schumpeter, and second Schumpeter neglected *The Theory of Moral Sentiments* (Ortmann, Baranowski, Walraevens, 2015).

Let us take the second point now, *The Theory of Moral Sentiments*, and we will leave the first point, the originality of *Wealth of Nations*, for later in this paper. Schumpeter did not even read Smith's *Theory of Moral Sentiments*, according to the paper just cited. At least he did not read it carefully. Schumpeter may only have leafed through the pages of this book, reading the table of contents and a few passages on wealth, but that was all. Frankly, Schumpeter should have read *Theory of Moral Sentiments* closely, and after all Smith said it was his favorite among his books. He burned his other papers before his death, and he devoted himself to a revision of *The Theory of Moral Sentiments*. Schumpeter's failure to read the book closely was a shocking dereliction of his professional duty. I would not suggest he did such a thing unless I had the authority of experts to back up the claim. With their authority, I accept it as true. Why therefore did Schumpeter neglect *The Theory of Moral Sentiments*? Here is one suggestion.

I think Schumpeter neglected *The Theory of Moral Sentiments* because Schumpeter was wrong about utilitarianism. He said that "the essential point to grasp is that utilitarianism was nothing but another natural-law system" (Schumpeter, 2006: 128).

Schumpeter understood that utilitarianism was the system of moral philosophy which underlay Smith's work in political economy, but Schumpeter did not understand utilitarianism. It evolved from British empiricism, and furthermore Schumpeter did not understand empiricism. Instead, as you can see from his own words in the quotation above, he judged British utilitarianism to be a version of medieval scholastic or Aristotelian philosophy. He also appears to have confused philosophical empiricism with philosophical materialism (Schumpeter, 2006: 391). In other words, Schumpeter had been educated to take a continental and German view of moral philosophy, and he neglected Adam Smith's *Theory of Moral Sentiments* because he thought it was banal and superfluous. That was also why Schumpeter did not think Smith's political economy was original. Schumpeter thought Smith based it on an obsolete and old-fashioned moral philosophy.

If Schumpeter did not read *The Theory of Moral Sentiments* closely, he did read and quote Jeremy Bentham because Schumpeter understood correctly that Smith offered an earlier version of the theory of moral philosophy which Bentham developed. Bentham called that moral philosophy utilitarianism. Although Smith did not use the word Utilitarian, nevertheless his moral philosophy was an early version of that system. However, no one can understand Bentham's and Smith's utilitarian moral philosophy if he or she mistakes their philosophy as an example of natural law, scholastic, Aristotelian argument.

So, what is a correct view of utilitarian moral philosophy?

We will start with empiricism. It is a Greek word, and empiricism as a doctrine is thousands of years old, well-known to all western philosophers since ancient times. The Roman stoics, for instance, said "nihil est in intellectu quod non prius in sensu," there is nothing

in the mind which is not first in the senses. That saying was a commonplace. Take for instance these lines of the seventeenth-century English metaphysical poet John Donne,

Dull sublunary lovers' love
(Whose soul is sense) cannot admit
Absence. . . . (Donne, undated)

These short lines of poetry contained the whole empirical argument in a nutshell. The moon marks the line between heaven and earth, according to the poet, and empiricism is an earthly philosophy, its adherents able to know only earthly things. The poetry contains criticism of empiricism also. Empiricists cannot know heavenly things because they deny the reality of anything which is absent. Their love is earthly, but love ought to be heavenly. The point is that Donne thought these ideas were commonplace.

Empiricism solved very neatly a great problem in philosophy. Let us say that philosophy has only two parts, metaphysics, which is defined by the *Oxford English Dictionary* as the ultimate science of being and knowing, and epistemology, which is defined there as understanding the difference between justified belief and mere opinion. Metaphysics in other words deals with claims of being. When you say something exists you make a metaphysical claim. Epistemology deals with proofs. Empiricism is an attractive notion in philosophy because it solves clearly and simply the problem of epistemology. We will admit, says the empiricist, only those metaphysical claims which we can prove by sense experience. All other metaphysical claims we will leave aside as unproven.

You might say that there is also a third branch of philosophy, one which deals with claims of right action. Empiricism makes a problem there. By empirical philosophy, the mind is a black box. The mind is a mere interface. Sense data comes in, action goes out, and the mind cannot transcend its prior sense experience.

This did not much bother the ancients. They had what we now call a shame morality. The Greek historian Polybius for instance took an empiricist position in philosophy, but his theory of right action was unaffected (Pédech, 1964). We act rightly, Polybius said, when we bear without complaint the pain and the misfortunes which are inevitable in human life. He thought that your group established your rules of right action, and ethics consisted of earning the approbation of your group. If you are a soldier, for instance, then you must bear pain and misfortune without complaint because other soldiers will approve you, and when they do then you will have acted rightly. Japanese people still have a shame moral system like that of the ancient Greeks and Romans (Benedict, 1974).

Christianity introduced a guilt morality. Christians act rightly, the Bible said, only when they act according to the will of God, and Christians were responsible to God for their choices, not for their actions alone. If they choose and act according to the will of God, however, they may often expect only blame and punishment from society at large for their actions and beliefs. "Blessed are you when men shall revile you, and persecute you, and shall say all manner of evil against you falsely, for my sake," Matthew 5:11. Empiricism posed a problem in moral philosophy after the introduction of Christianity, therefore (Brown, 1988).

Smith and the British utilitarians thought that they had solved this problem, reconciling empiricism with Christian ethics and theories of right action. This was what Schumpeter did not understand when he said that Smith was not original, and that utilitarianism was an Aristotelian and natural law system.

Here is the problem which empiricism posed to those who propounded Christian ethics. If the mind is a black box, then it cannot transcend experience, and experience alone dictates present opinions and actions. How then can God hold men and women accountable for their choices? People have no free choice. Instead God is responsible. God placed each man or woman in a set of circumstances, and such circumstances alone dictate all human choices.

This was the problem that utilitarianism solved. This was why Smith thought his utilitarian moral philosophy was brilliant and original. Here was the solution. Yes, sense data

are the sole basis of human knowledge. No, human reason cannot transcend sense data. Human emotions and appetites are however as strong as sense experience and independent of it. Smith and other people called these emotions and appetites sentiments, and Smith and his colleagues thought sentiments were the basis of moral action and moral responsibility, hence the title “moral sentiments.” When people chose, human reason presents an analysis of previous sense experiences, but sentiments also inform that analysis. Sometimes sentiments dictate cruel and selfish action. Sometimes pity dictates benevolent action, so pity is the basis of right actions.

Schumpeter was not a good guide to *The Theory of Moral Sentiments*. Marx was a good guide to the connection between seventeenth-century political economy and *The Wealth of Nations*, but Marx also neglected Smith’s earlier book, and thereby lies our tale in this paper. Marx was correct about Smith’s debt to Petty, but Marx missed the brilliance and originality with which Smith challenged and remedied what Smith saw as the defects in the empirical philosophy underlying Petty’s theories of division of labor and surplus value. The challenge of seventeenth-century political economy was to connect Christian moral philosophy to empiricism. By doing so, Smith made seventeenth-century political economy acceptable as the basis of eighteenth-century public policy.

Sir William Petty was one of a whole school of British seventeenth-century empirical writers. Following Petty, Adam Smith was also the heir of these seventeenth-century British empirical writers. Sir Francis Bacon led them all, and other writers of the same school included Thomas Hobbes and various members of the Royal Society. Hobbes had served Bacon as a pageboy. Hobbes was a very close friend of Petty, and they lived together in poverty during their exile in Paris where they fled England during the Civil War. Petty and Hobbes were royalists at that time, but Petty later accompanied Oliver Cromwell in Ireland during the war there, and this Irish service made Petty very rich. After the return of King Charles II, however, Petty ceased to play any active role in public life, and he instead became especially busy as a writer of political economy. He carried on in this work the empirical tradition that he had learned from Bacon and Hobbes.

III. Empiricism and Seventeenth-century Political Economy

Seventeenth-century British empiricist philosophers were often in their lifetimes accused of being hostile to Christianity. The whole Royal Society was tainted by such accusations in the seventeenth century. If you want an account of these accusations, and if you want to spend an amusing evening, then you should read Jonathan Swift’s *Tale of a Tub*. Although early, it was perhaps Swift’s very best book, lacking the bitter acrimony of his later writing. Remind yourself first though of three of Swift’s other and more famous and briefer contributions, *A Modest Proposal*, *An Argument Against the Abolition of Christianity*, and the episode about projects in *Gulliver’s Travels*, volume two, where he proposed to turn cucumbers into sunbeams. This last was of course a wicked pillory of the Royal Society. *A Modest Proposal* was a scathing attack on the theory that population was rising. Most people at the time thought that population was falling. A follower of Sir William Petty, Gregory King, speaking through Charles Davenant, said that population was rising. Swift’s essay on Christianity presumed that government was preparing another project, this time to abolish the Christian religion. Again, this was another cruel parody of projects.

You should know that King and Davenant were in the circle of Robert Harley, eventually earl of Oxford and one of the principal secretaries of state. Harley rewarded them generously for their work there. Harley’s circle was connected to the Royal Society (Collins, 1998: 526–529).

Harley’s circle made many projects. This was why Swift was so cruel and bitter about projects. Among the projects of Harley’s circle was Queen Anne’s Bounty to the Clergy, 1704. Her father King James II lost his throne in 1688 due to his being a Roman Catholic, but he had earlier allowed his daughter Anne to be raised a Protestant, and she was as queen the

head of the Protestant established Church of England. She ordered Robert Harley and her other ministers of state to raise the incomes of its poorest clergymen so that none of them would have less than fifty pounds sterling per year. Gregory King advised Harley on the work of the Bounty (Taylor, 1996).

A clergyman, Swift applied to Harley for church preferments in England for himself, but this was rejected. Harley left Swift in his minor provincial post as dean of the Anglican cathedral in Dublin. Finally, Swift asked Harley to extend the Queen's Bounty to Anglican clergymen in Ireland, but Harley refused this request, too. Swift was Harley's disgruntled employee in other words. Swift was very bitter.

Tale of a Tub was a work of real genius. It was an attack on the empirical method of the Royal Society, a method which Swift identified first with Sir Francis Bacon and Thomas Hobbes. He accused the Royal Society and its friends of atheism. Swift swept up all empiricist natural philosophers into one pile, and said they were all atheists who thought the world was a machine without a soul.

The title *Tale of a Tub* was a reference to the practice of whaling ships. They released a small floating vessel or tub in the hope that angry whales would attack the tub and not attack the main whaling vessel or ship. The whale in this case was *The Leviathan* of Thomas Hobbes. Swift depicted Hobbes as an ethicist, and Swift hoped Hobbes and the other atheists would attack Swift himself and not the Church of England whose clergyman he was.

Were Hobbes, Petty, and many of the other famous seventeenth-century writers really atheists? Let us look at their philosophical argument. That argument was the background for Swift's attack upon them.

Remember that an empiricist will allow as true only those metaphysical claims which ground in sense experience. Remember John Donne's poem. If no sense data are offered as proof for a metaphysical claim, then many empiricist philosophers would hold that claim to be not subject to proof, and they would leave that claim unexamined. That is why empiricist philosophers were often called skeptics. Other empiricist philosophers might allow that while some of those metaphysical claims could not be proven to be true, yet they might be proven to be false. For instance, if someone claims that a thing is true of a whole class of items, then you could possibly falsify that claim by examination of a single item, even though you left all the other items unexamined. If you hear someone say that all swans are white, then you might first leave that claim unexamined because you cannot observe all the swans in the world, but if you find a single black swan then you have falsified the metaphysical claim in question, and you have done so on empiricist principles. This point will be important presently (Garrett & Barbanell, 1997).

Since an empiricist most hold that sense experience is the sole ground of all provable human knowledge, then he or she would not be able to affirm the existence of God absent any sense experience of God. Remember that on empiricist principles no one can transcend the limits of his or her prior sense experience. Swift and others therefore thought that an empirical philosophy was on this system unable to prove the existence of God or the authenticity of any general and prescriptive rules of right action.

Please permit a few side comments. First, please do not believe for a moment that Hobbes was an atheist. Swift's accusation was faulty. Direct your attention to the extensive writings on religion in Hobbes' work. None of these was atheist in character. Hobbes instead was the peaceable subject of King Charles I. Hobbes believed that the civil magistrate had authority as well in ecclesiastical as in civil matters. The king was an Anglican, and the Church of England was established by law. Therefore, Hobbes conformed to it. QED. We might therefore very well attribute to Hobbes a form of skepticism. He could not be sure of religious truth in the abstract, but he was sure that docile religious conformity was of benefit alike to the sovereign, to the subject, and to the commonwealth.

No matter the truth of his belief, Hobbes was anyway reputed in his lifetime to be an atheist. As you can see from reading Swift, that accusation besmirched the reputation of

the whole Royal Society. It besmirched Petty. So, the problem with seventeenth-century political economy was precisely that its most brilliant proponents smacked of atheism.

Another side argument. Marx mentioned Petty, but Marx did not clarify how much intellectual debt Smith owed to specifically to Petty and how much to other seventeenth-century authors. Marx may have thought that Petty wrote more than is now attributed to him. Petty was closely connected to John Graunt, for instance, so closely that Petty allowed Graunt to publish under Petty's name, and Graunt is often said to have been the inventor of statistical science. Graunt's great book on London's bills of mortality (tables of death statistics) was a seminal work, now widely said to be the first book of statistical science, and it was published as though it were by Petty. Marx was not able to unravel these puzzles of authorship, but that does not matter to us here. Having mentioned John Graunt, we should also mention Gregory King and Charles Davenant both of whom Adam Smith cited. All those seventeenth-century writers were direct heirs of Francis Bacon, and Thomas Hobbes was the link between them and Bacon. Davenant and King borrowed directly from Graunt. The matter of source attribution was complex, therefore. Marx was right in general to point to them as Adam Smith's sources (Laslett, 1973; Strangeland, 1966: 138–149).

A final side comment. Everyone knows that Bernard Mandeville's *Fable of the Bees* influenced Smith. Private vice is public virtue, Mandeville argued. The greed, pride, and luxury of the rich gave work to the poor. This book was also widely reputed to be contrary to Christian ethics (Fitsbiggins, 1995: 139–140).

David Hume tried to defend Mandeville by claiming that greed could rescue a man from sloth (Hirschman, 1977: 25–26).

Smith's *Theory of Moral Sentiments* was precisely such a defense of empiricism against similar charges.

IV. Seventeenth-century British Empiricism and Mathematics

Why was it important that Schumpeter dismissed Smith as neither brilliant nor original? In one word, mathematics. By misunderstanding Smith's *Theory of Moral Sentiments*, Schumpeter undervalued Smith's seventeenth-century sources all together, and other economists took this as a license to skip reading those sources. This obscured the key role that shop arithmetic played in seventeenth-century political economy.

William Letwin wrote the standard twentieth-century history of economic thought. He held that Smith invented scientific economics. Before Smith, British writers in political economy were self-interested proponents of specific government policies, and none of these writers, Letwin said, was truly and sincerely concerned about policy or about the public good in the abstract. Furthermore, this argument went, Smith did not use much mathematics. Jevons, Edgeworth, and others added it later together with the marginalist revolution of the end of the nineteenth century (Letwin, 1964).

As I have summarized Letwin's argument about Smith, every point of it was wrong, and unforgivably wrong. Remember that Schumpeter did not read *The Theory of Moral Sentiments*. He did not bother to locate Smith in the context of Smith's British predecessors. Perhaps his disdain for Smith's brilliance was the origin of the convention by which many twentieth-century economists such as Letwin read *Wealth of Nations* but did not bother to read either *Theory of Moral Sentiments* or Smith's seventeenth-century British predecessors.

By contrast, Marx was right about the importance of Smith's seventeenth-century sources, and Marx read Smith's predecessors very carefully. That was why Letwin's mistakes were unforgivable. He should have read the earlier writers carefully, too. Anyone who read them could see that Smith inherited a complex and philosophically considered and sophisticated tradition of empirical political economy, and this tradition connected political economy to mathematics.

Let us discuss Letwin's claim that Smith invented scientific economics but without mathematics, and others only later added mathematics to it. While we are on this point,

let us remember also that one of Schumpeter's objections, quoted earlier, was that *Wealth of Nations* set out masses of dull statistics which were intended to lull and beguile its none-too-bright readers. This denunciation of Smith's use of statistics was wrong, too.

True, Smith avoided higher mathematics. Doing so, he followed Sir Francis Bacon and other seventeenth-century writers of political economy. They also avoided higher mathematics. Hobbes was the exception which proved that rule. Hobbes imagined himself a brilliant mathematician, and then he made a fool of himself, bringing much ridicule down upon himself and upon the Baconian and empirical tradition which he championed. Hobbes thought he had squared the circle, for instance.

There was a mathematical side to the seventeenth-century empirical tradition nevertheless, and it consisted of shop arithmetic, addition, subtraction, multiplication, and division. Bacon had recommended use of this arithmetic, but even so numbers were seldom found in any of his own work. Petty carried on Bacon's praise of arithmetic, yet he never used it very much either. When Petty did use arithmetic, he threw numbers around casually, and they were like decorations. He did not bother to make accurate calculations or to get accurate data.

The seventeenth-century reason for all this, I believe, was the desire to persuade statesmen in face-to-face communication. The published writings in political economy were incidental. What really mattered was policy. To have an impact on policy, you had to have personal contact with statesmen. The phrase Apolitical arithmetica did not at that time mean published commentary. The phrase meant the policy of statesmen when that policy was informed by arithmetic. Policy was made in conversations which are now of course lost. Statesmen in that age were usually landowners. They were familiar with the accounts of their landed estates which were kept in shop arithmetic, and the statesmen responded to attempts to make such shop arithmetic accounts for the public business as well.

Smith himself appears to have used the phrase "political arithmetic" to refer to "computations," and he used the phrase "political economy" to refer to public policy. When he said he had no great faith in political arithmetic, he meant he doubted the accuracy of particular data. When he criticized political economy, he meant he doubted the wisdom of particular public policies. The twin goals of public policy should be the enrich the people and second to fund the state so that it could provide sufficient public services. In this regard, Smith used the language of his own time. By the end of the eighteenth century, the phrase "political arithmetic" became so imprecise in its meaning that it eventually passed out of current use.

By contrast, Petty's follower the humble shopkeeper John Graunt did get accurate data. He had little opportunity for face-to-face meetings with the great and the good. A humble man, he had to publish to be heard. Graunt followed a detailed plan which he based on Bacon, and another famous statistical pioneer, Gregory King, likewise followed Bacon carefully. King also read Petty carefully, and King even borrowed John Graunt's title, natural and political observations. Smith, who quoted with approval Gregory King's calculation of a workman's weekly wage, could read King's estimates only in fragmentary form since King did not publish them himself, and Davenant published them only in part. Bacon, then, praised shop arithmetic, and so did Petty, and this was the result.

Letwin was off by two hundred years therefore. What he said about a nineteenth-century addition of mathematics to Smith's political economy was false about Smith but true about Francis Bacon: Bacon praised arithmetic in connection with empiricism, but he made little use of calculation. John Graunt invented statistical science, and he combined Bacon's praise of arithmetic with a concern for accurate data and accurate calculations. Gregory King carried Graunt's work forward. Graunt and King. If you read Smith carefully, you can see that his use of statistics made him the heir of their work.

V. Theory of Moral Sentiments

Remember that Smith was not an economist. He was first a professor of moral philosophy, then tutor and companion to the duke of Buccleuch, then lord rector of the University

of Glasgow. It was a brilliant career. He would not have enjoyed such success had a reputation for atheism stained him. Therefore, Smith could not take up unreformed seventeenth-century empiricism without injury to his academic career. The task in *Theory of Moral Sentiments* was to rescue seventeenth-century empiricism from its infamous reputation as contrary to Christian ethics and theories of right action.

VI. How Might We Use Smith's *Theory of Moral Sentiments* in Macroeconomics Now?

Let us take two examples, first, the "Efficient Market Hypothesis" (EMH), and, second, the use of heuristic notions in behavioral economics.

The Investopedia website, defined the EMH as follows:

The efficient market hypothesis (EMH) is an investment theory that states it is impossible to "beat the market" because stock market efficiency causes existing share prices to always incorporate and reflect all relevant information. According to the EMH, stocks always trade at their fair value on stock exchanges, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices. As such, it should be impossible to outperform the overall market through expert stock selection or market timing, and the only way an investor can possibly obtain higher returns is by purchasing riskier investments¹.

Smith could refute that EMH agreement as follows. He would say that a common experience is shared by all persons who observe a given phenomenon, the share price of a stock for instance, but each person also brings to that shared observation his or her own prior predilections, and these prior predilections differentiate his or her perception of the shared phenomenon. Each person in other words has a unique balance of various emotions or sentiments. Some of these sentiments prompt a person to immoral action B anger, lust, greed, etc. Other sentiments prompt a person to right action, and above all pity or sympathy prompt to right action. For these reasons, individual people will perceive the stock price differently, and therefore their behavior will differ. If someone argues that the market absorbs all these different perceptions to produce a result, the price of a stock, then that argument is a mere regression, like a hall of mirrors. We each of us cannot escape our tendency to perceive the price according to our prior emotions or sentiments.

In order to falsify the EMH, it would not be necessary to examine every participant in the market. If we examine only a few, and if we find that emotion clouds their judgment of the market, then that would be enough for our purpose.

Let us turn to the use of heuristic methods in economics. *The Oxford English Dictionary* defined "heuristic" as follows. It is a "process or method for problem-solving, decision-making, or discovery; a rule or piece of information used in such a process." The English word came to us through French and Latin and ultimately from a Greek original, the dictionary said. The Greek word meant "to find". The heuristic method in economics aims to construct something which then allows us to find a rule or piece of information.

Smith would not have used that Greek word "heuristic." If we could have explained to him our later notion concerning it, I think, he would in reply have called himself pragmatic. Turning again to the *OED*, we find the following definition of "pragmatism." It means in English:

The doctrine that an idea can be understood in terms of its practical consequences; hence, the assessment of the truth or validity of a concept or hypothesis according to the rightness or usefulness of its practical consequences.

Smith would tell us that we propose not to ask whether something is true in the abstract when we use a heuristic model. We seek instead a tool, a means to an end, not an end in itself. We are pragmatic.

You might reply that Smith did not call himself "pragmatic." The *OED* assigned the origin of the English word "pragmatic" to one of the most famous of all later American philosophers, C S Pierce, but the word was commonplace in the ancient languages. Polybius, whom I mentioned before, called himself a pragmatic historian for instance. The Roman historian Livy, a disciple of Polybius, had similar concepts. If anyone had mentioned the

words “heuristic” or “pragmatic” to Smith therefore then he would have recognized their various philosophical problems because he was very familiar with Greek philosophy.

VII. Conclusion

Adam Smith’s *Theory Moral Sentiments* should be required reading for all students of economics, and the book should pose for all of us the problem of connecting moral theory on the one hand and macroeconomic analysis on the other. Smith attempted to reconcile seventeenth-century empirical political economy with eighteenth-century theories of ethics or right action. By reason of his ethical theories, Smith stood apart from later classical writers such as Malthus and Ricardo. Smith should be seen as providing the capstone of seventeenth-century British political economy. He merged political economy with a British empirical moral philosophy, later called utilitarian philosophy, which was compatible with Christian ethics and theories of right action. Schumpeter was wrong not to read Smith’s *Wealth of Nations* in the context of Smith’s moral philosophy, therefore. Marx was right to stress the connection of *Wealth of Nations* to seventeenth-century political economy, on the other hand, but Marx also neglected Smith’s moral philosophy.

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