Saving, Investment, Greed, and Original Accumulation Do Not Explain Growth

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Part 5 of 13:
"Saving, Investment, Greed, and Original Accumulation Do Not Explain Growth"

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Bourgeois Dignity and Liberty: Why Economics Can't Explain the Modern World

[Vol. 2 of The Bourgeois Era]

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To Readers: The argument is, I fancy, complete, but some details in footnotes and references, and occasionally matters of routine calculation in the main body, need to be cleaned up.

Abstract: Thrift was not the cause of the Industrial Revolution or its astonishing follow on. For one thing, every human society must practice thrift, and pre-industrial Europe, with its low yield-seed ratios, did so on a big scale. British thrift during the Industrial Revolution, for another, was rather below the European average. And for still another, savings is elastically supplied, by credit expansion for example (as Schumpeter observed). Attributing growth to investment, therefore, resembles attributing Shakespeare's plays to the Roman alphabet: "necessary" in a reduced sense, but in fact an assumed background, not the cause in any useful sense. Certainly Europeans did not develop unusual greed, and the Catholics---in a society of bourgeois dignity and liberty---did as well as the Protestants (in Amsterdam, for example). Ben Franklin, for example, was not (as D. H. Lawrence portrayed him in a humorless reading of this most humorous man) "dry and utilitarian." If capitalism accumulates "endlessly," as many say, one wonder why Franklin give up accumulating at age 42. The evidence also does not support Marx's notion of an "original accumulation of capital." Saving and investment must be used when they are made, or they depreciate. They cannot accumulate from an age of piracy to an age of industry. Yet modern growth theory, unhappily, reinstates as initiating the theory of stages and, especially, capital accumulation. They are not initiating, whether in physical or human capital. Innovation 1700-2010 pushed the marginal product of all capitals steadily out, and the physical and human capital followed.

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Chapter 11:

It Didn't Happen Because of Thrift

How, then? How and why did the first Industrial Revolution happen, with its astonishing follow-on in the nineteenth and twentieth centuries? In this book we specialize in widely believed explanations that don't work very well. One widely believed explanation is thrift.

The word "thrift" in English is still used as late as John Bunyan to mean simply "wealth" or "profit," deriving from the verb "thrive" as "gift" from "give" and "drift" from "drive" (the derivation was still vibrant in 1785 to a scholarly poet like William Cowper, who laments the working poor in *The Task* [17 ; Book IV],"With all this thrift they thrive not"). But its sense 3 in the *Oxford English Dictionary* is our modern one, dating significantly from the sixteenth century: "so I will if none of my sons be thrifty" (1526); "food is never found to be so pleasant . . . as when . . . thrift has pinched afore" (1553).

The modern "thrift," sense 3, can be viewed as a mix of the cardinal virtues of temperance and of prudence in things economic. Temperance is the cardinal virtue of self-command facing temptation. Lead me not into temptation. Prudence, by contrast, is the cardinal virtue of practical wisdom. Give us this day [a way to make prudently and laboriously for ourselves] our daily bread. It is reason, know-how, *savoir faire*, rationality, getting allocation right. Prudence lacking temperance does not in fact do what it knows it should thriftily do. Temperance lacking prudence, on the other hand, does not know in practice what to do. A prudent housewife in the "Ladder to Thrift," as the English agricultural rhymester Thomas Tusser put it in 1580, "makes provision skillfully."[1] Without being full of skill, that is, prudent, she does not know how to be thrifty in saving tallow for candles or laying up salt mutton for Eastertide.

Prudent temperance has in a sense no history, because it happens by necessity in every human society. The Hebrew bible, for example, speaks of thrift, though not very often, usually associating it with diligence: "The sluggard will not plough in the autumn by reason of the cold; therefore shall he beg in [the] harvest, and have nothing"; "Seest thou a man diligent in his business? He shall stand before kings" (Proverbs 20:4; 22:29). Jesus of Nazareth and his tradition used parables of thrift to point to another world, though again the parables of thrift are balanced by parables of liberality, such as changing water into wine to keep the party going. "Eat and drink," advises the Koran, "but do not be wasteful, for God does not like the prodigals" (7:31). In the Koran, as in the Jewish and Christians books, thrift is not a major theme.

Of course other faiths than the Abrahamic admire on occasion a prudent thrift. The Four Noble Truths of Buddhism, to be sure, recommend that life's sorrow can be dissolved by the ending of desire, in which case advice to be thrifty would be somewhat lacking in point. Be "thrifty" with your modest daily bread in your

[1] Tusser 1588, p. 13.

monk's cell? Buddhism is similar in this respect to Greek and Roman stoicism, which advocated devaluing this world's lot, an inspiration early and late to Christian saints of thriftiness. But Buddhism allows for prudent busy-ness, too. The "Admonition to Singâla" is in the Buddhist canon "the longest single passage . . . devoted to lay morality."[2] Buddha promises the businessman that he will "make money like a bee" if he is wise and moral:

> Such a man makes his pile
>   As an anthill, gradually.

And then it counsels an astounding abstemiousness far beyond that contemplated even in Max Weber's worldly asceticism:

> He should divide
> His money in four parts;
>   On one part he should live,
> With two expand his trade,
>   And the fourth he should save
> Against a rainy day.

The rate of savings recommended is fully 75 percent—though with no allowance for charity, which made Buddhist commentators on the text uneasy.

In England the thirteenth-century writers of advice books to Norman-English landowners start with a little bit on thrift and then go on to the prudent details of managing an agricultural estate. The third paragraph of *The Husbandry* by Walter of Henley, after a bow in the second paragraph to the sufferings of Jesus, prays "that

[2] Introduction by A. L. Basham, p. 120, to the passage in Embree, ed., *Sources of Indian Tradition*, Vol. I. The passage below is Dīgha Nikāya 3.182ff., reprinted p. 123.

according to what your lands be worth yearly . . . you order your life, and no higher at all."[3] And then in the same vein for five more paragraphs. The anonymous *Seneschaucy*, written like *Walter* in Norman French in the late thirteenth century, instructs the lord's chief steward "to see that there is no extravagance. . . on any manor . . . . and to reduce all unnecessary expenditure. . . which shows no profit. . . . About this it is said: foolish spending brings no gain."[4] The passage deprecates "the practices without prudence or reason" (*lez maners saunz pru e reyson*). So much for a *rise* of prudence, reason, rationality, Calvinist asceticism, and thrift three or four centuries later. From the camps of the !Kung to the lofts of Chicago, humans need to live within their incomes, being by their own lights "thrifty."

The prehistory of thrift, in other words, extends back to the Garden of Eden. It is laid down for example in our genes. A proto-man who could not gain weight thriftily in feast times would suffer in famine and leave fewer children, and therefore his descendent in a prosperous modern society needs irritatingly to watch his weight. Prudent temperance does not require a stoic or monkish or Singâla abstemiousness. A ploughman burning 3000 calories a day had better get them somehow. One should be thrifty in eating, says Tusser, but not to the point of denying our prudent human solidarity:

> Each day to be feasted—what husbandry worse!
>
> Each day for to feast is as ill for the purse.
>
> Yet measurely feasting with neighbors among

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3 Walter, late thirteenth century, in Oschinsky 1971, p. 309.

4 Senechaucy, late thirteenth century, in Oschinsky 1971, p. 269.

Shall make thee beloved, and live the more long.[5]

And so too actual luxury, the opposite of thrift. "Depend on it, sir," said Samuel Johnson in 1778, "every state of society is as luxurious as it can be. Men always take the best they can get," in lace or food or education.[6] Marx noted cannily that "when a certain stage of development has been reached, a conventional degree of prodigality, which is also an exhibition of wealth, and consequently a source of credit, becomes a business necessity. . . . Luxury enters into capital's expenses of representation."[7] It sounds plausible enough. Otherwise it would be hard to explain the high quality of lace on the collars of black-clad Dutch merchants in paintings of the seventeenth century, or indeed the Dutch market for the paintings in their hundreds of thousands that reflected back in oily richness the merchants and their world.

The average English and American-English person from the sixteenth through the eighteenth century, then, surely practiced thrift. But this did not distinguish her from the average English or American-English person before or after, or for that matter from the average person anywhere on Earth since the Fall. "'My other piece of advice, Copperfield,' said Mr. Micawber, 'you know. Annual income twenty pounds, annual expenditure nineteen nineteen and six, result happiness. Annual income twenty pounds, annual expenditure twenty pounds ought and six, result misery.' . . . To make his example the more impressive, Mr.

5 Tusser 1588, p. 18.

6 Boswell 1791, April 14, 1778 (vol. 2, p. 203), quoted in Mathias, p. 302.

7 Marx 1867, Chp. 24, Sec. 3, p. 651.

Micawber drank a glass of punch with an air of great enjoyment and satisfaction, and whistled the College Hornpipe. I did not fail to assure him that I would store these precepts in my mind, though indeed I had no need to do so, for, at the time, they affected me visibly."[8]

Thrift in the sense of spending exactly what one earns is indeed forced by accounting. Not having manna from heaven or an outside Santa Claus, the world must get along on what it gets. The getting and spending must happen if the free gifts of nature such as sunlight are to be of any use. If we do not at least hunt or gather, we do not eat. The world's income from the effort must equal to the last sixpence the world's expenditure, "expenditure" understood to include investment goods. So too Mr. Micawber. If he spends more than he earns he must depend on something turning up, such as a loan or a gift or an inheritance. He draws down his credit. In the meantime his transfers from his diminishing balance sheet—what he owns and owes—pays to the last sixpence for his glass of punch and his house rent.

Thrift in the sense of spending less than one earns and thereby accumulating investments is again a matter of accounting. You must allocate everything you earn somehow, to bread or bonds or house-building. If you can resist consuming soft drinks and other immediate consumption goods, "abstaining from consumption" in the economist's useful way of putting it, you necessarily save. That is, you add to your bank account or to your investment in education or in battleships. But of

[8] Dickens, *David Copperfield*, 1849-50, Chapter 12.

course you can allocate foolishly or well, to bombs or to college educations, to glasses of punch or to a savings account.

There is nothing modern about such accounting. It comes with life and the first law of thermodynamics, in the Kalahari or in Kansas City. In particular the pre-industrial European world contrasted with modern times needed urgently to abstain from consumption, "consumption" understood as immediate expenditures that are not investments in some future. Yields of rye or barley or wheat per unit of seed planted in medieval and early modern agriculture were extremely low: only 3 or 4—they are 50 or so now for wheat, and 800 for maize. (In monsoon Asia the flooding rains allow the cultivation of rice, which has always had a high yield-seed ratio, with the additional benefit that the annual and sometimes biannual flooding fertilized and weeded the fields, without plowing. Rice was introduced by the Muslims into Spain and Sicily, and it spread by the fourteenth century into, say, the Po Valley in northern Italy. But it was not raised in the flooding way of the East, and of course it was never grown in northern Europe.[9]) The low yields forced Europeans in the good old days if they did not want to starve next year to refrain from a great deal of consumption this year. That is, one quarter to one third of the grain crop had to go back into the ground as seed in the fall or the spring, its fruit to be harvested the next September. It had better. In an economy in which the grain crop was perhaps half of total income, that portion alone of medieval saving implied an aggregate saving rate of upwards of ½ times ¼, or 12 percent. The rate of saving in modern

[9] Goldstone 2009, p. 11.

industrial economies is seldom above 10 or 20 percent. No wonder there was little savings available for trying out innovations, and the less so because the crops were variable. Medieval life was precarious, and innovation correspondingly dangerous.

The trade in grain was restricted to the parts of Europe served by rivers and seas, since overland cartage was enormously expensive when roads were mere tracks through mud—and even water transport was usually expensive as a share of the price. The price of wheat in Valencia, Spain in 1450 was 6.7 times the price in Lwow, Poland (by 1750 it had fallen to a few percentage points of difference).[10] Therefore local grain storage for local consumption was also high by modern standards. In recent times if the grain crop does poorly in America the market easily supplies the deficiency from the other side of the world. In the late Middle Ages some grain did flow from the Midlands to London or from Burgundy to Paris. But it began to flow to Western Europe in large amounts from as far away as Poland only gradually in the sixteenth and seventeenth century, by the efforts of thrifty Dutch merchants and shipbuilders. Only in the nineteenth century did it come from as distant a clime as Ukraine or, later, North and South America, or finally Australia. Until the eighteenth century therefore the grain crops in the narrow market tended to fail together. The potato famine of the 1840s was the last big replay in Europe of a sort of undiversified catastrophe commonplace there in the 1540s and more so in the 1340s. Grain storage, in other words, amounted to another desperate form of saving, crowding out more modern forms of investment.[11] In such circumstances

[10] Braudel and Spooner 1967, Figure 23, p. 477.

[11] McCloskey and Nash 1984. Compare Cipolla 1994, p. 89.

you stored grain in gigantic percentages of current income, or next year you died (in West Germanic languages except English, and in English itself until modern English, the word cognate with "starve" [for example, German *sterven*] is the main word for "die").

Such desperate scarcities were broken in the New World of British Americans, who ate better than their Old-World cousins within a generation of the first settlements. It was not a remarkable achievement, considering that the rivers were full of fish and the woods full of game, and that their English cousins were then passing through the worst times for the workingman since the early fourteenth century.[12] Plentiful land in Massachusetts or Pennsylvania, at any rate on the literal frontier, made it unnecessary to save so much in grain, and freed the forced thrift for other investments.

But notice: although the North American English became even in the late seventeenth century pretty well off by the poor British standards, and therefore freed from using up its savings protecting next year's grain crop or grain store (which anyway was in good part Indian corn with a high ratio of yield to seed), British North America was by no means the home of the Industrial Revolution. It was too small, too tempted by agriculture, too far away from a mass of consumers, or for that matter too restricted by British mercantilism. The northeast of the United States, like southern Belgium and northern France, was to become a close follower, of course, in the 1790s and 1800s. "Yankee ingenuity" is not a myth, as the quick

[12] Innes 1988, p. 5.

industrialization of New England was to show. The North American colonies did indeed contain many ingenious inventors willing to get their hands dirty. Even the slave areas were not inventive deserts by any means: look at Jefferson's ingenuity, and the improvement of cotton varieties. But the leaders of industrialization, from the 1760s, were northwest England and lowland Scotland. These were lands of grindingly *necessary* thrift. Yields of agriculture were still low—the real "agricultural revolution" came finally in the nineteenth century with guano, selective breeding, steel plows, cheap water transport, reaping machines, commodity exchanges, and clay-pipe drainage, not as used to be thought in the eighteenth. In short, the homeland of the Industrial Revolution was not a place of excess savings waiting to be redirected to factories.

The point is that there is no aggregate increase in thrifty savings to explain the modern world. Thrifty saving is not peculiar to the Age of Innovation. There was no rise of thrift or prudence or greed in the childhood of modernity. Actual saving was high before modern times, and did not change much with modern innovation. We were thrifty long before we were mainly urban, and long, long before we came to celebrate bourgeois dignity and bourgeois liberty and the creative destruction they wrought.

Looking at thrift in a cheerful way, the starting point used to be said to be (according to Max Weber in 1905, for example) a rise of thriftiness among Dutch or especially English Puritans. Marx characterized such classical economic tales, from which Weber later took his inspiration, as praise for "that queer saint, that knight of the woeful countenance, the capitalist 'abstainer'."[13] We can join him for a moment in disbelieving the optimistic tale—noting further, and contrary to his own pessimistic version of the same tale, that abstention is universal. Saving rates in Catholic Italy or for that matter Confucian China were not much lower, if lower at all, than in Calvinist Massachusetts or Lutheran Germany. According to recent calculations by economic historians, in fact, British investment in physical capital as a share of national income was strikingly *below* the European norm—only 4% in 1700, as against a norm of 11%, 6% as against 12% in 1760, and 8% against over 12% in 1800.[14] Britain's investment, though rising before and then during the Industrial Revolution, showed less, not more, abstemiousness than in the less advanced countries around it.

The evidence suggests, in other words, that saving depends on investment, not the other way round. You should by all means innovate, with a modest stake borrowed from your brother, and then earn the additional savings to reinvest in your expanding business. When in the nineteenth century the rest of Europe started to follow Britain into industrialization, its savings rates rose, too. The rest of Europe's markedly higher rates during the eighteenth century did not cause it then to awaken from its medieval slumbers. Saving was not the constraint. As the great medieval economic historian, M. M. Postan, put it, the constraint was not "the poor

13 Marx 1867, Chp. 24, Sec. 3, p. 656.

14 Crafts, Leybourne, and Mills 1991, Table 7.2, p. 113; and Feinstein 2003, p. 45.

potential for saving" but the "extremely limited" character in pre-nineteenth-century Europe of "opportunities for productive investment."[15]

And innovation, not the sheer piling of productive investments, dominates economic growth. The late Charles Feinstein, who pioneered the estimation of the national accounts of Britain back into the mid-nineteenth century and before, disagreed. He argued that "in the earlier stages of economic development, increases in the stock of physical capital accounted for a large part of the rise in output per man hour; workers were able to produce more because they had more capital to work with."[16] Yet such capital-induced rises in output per man hour were limited. Doubling the number of horses that a plowman works with does indeed raise wheat output per man hour some—though much less than a doubling (it will raise it by 100 percent [from the doubling of the horses] multiplied by the share of horses in the cost of producing wheat, 5 percent perhaps).[17] Multiplying the traditional equipment in scythes and open drains and barns *without innovating* does not come close to yielding a factor of sixteen. Innovating in clay-pipe under-drainage and plant breeding and forward markets and mechanical reapers and experimental stations and diesel tractors and rail car delivery systems and hybrid corn and farm cooperatives and chemical herbicides does. Feinstein knew all this, of course. He was a great and learned economic historian. He observed that "more recently [than

15 Postan is thus quoted with approval by another great student of the times, Carlo Cipolla, in Cipolla 1994, p. 91.

16 Feinstein 2003, p. 47, from which subsequent quotations are also taken.

17 According to the "marginal productivity theory" developed by economists from the 1890s to the 1940s, the share in total costs of an input into production such as horses or land or labor is the farmer's opinion of the percentage change in final output that will come from 1 percent more of the input. The theory is true if farmers face constant returns to scale and have no market power and are in the economist's sense rational.

'the earlier stages of economic development'] . . . advances in the quality of equipment have become progressively more important." But he could not let go of what William Easterly (2001) has called "capital fundamentalism." Innovation "must be embodied in physical equipment," Feinstein declared, thus retaining investment in the leading role. (His assertion is true for reaping machines and diesel tractors; but it is largely false for organizational innovations such as selective breeding.) The embodiment "made investment and saving . . . crucial to economic growth." The assertion is true in an accounting sense—no investment, no reaping machine. But it is false in an economic sense. Attributing the Age of Innovation to piling up of capital is like attributing Shakespeare to the English language or to the Roman alphabet. Yes, he needed the language and even the alphabet. Granted. But is "crucial" the right concept of causation to use?

The supply of saving to one region such as Lancashire or one country such as Britain—even economically dominant Britain around 1840—came at a fixed rate of interest, 4 or 6 percent. The demand for saving was the usefulness of a loan to build a barn or a machine, a usefulness that economists call the "marginal product of capital." Piling brick on brick, or even machine on machine, led to rapidly diminishing returns. Think of a bricklayer oversupplied with bricks, or a 100-acre farm with six tractors. During the 1930s and early 1940s the prospect of diminishing returns deeply alarmed such economists such as the American Keynesian at Minnesota and Harvard, Alvin Hansen.[18] They believed that the technology of

[18] Hansen 1938, 1941, out of Keynes 1937.

electricity and the automobile was exhausted and that sharply diminishing returns to capital were at hand, especially in view of declining birthrates. People would save more than could be profitably invested, the economists believed, and the economy would stagnate. In line with the usual if doubtful claim that spending on the War had saved the world's economy, they believed that 1946 would see a renewal of the Great Depression. But it didn't. Stagnationism proved false.[19] Instead, world income per head grew faster from 1950 to 1974 than at any time in history, and the liberal countries boomed.

That is, innovation prevented the return to capital from declining. Improved washing machines and better machine tools and innovative construction techniques and a thousand other fruits of resourcefulness made people richer, and incidentally kept investment profitable. In terms an economist will understand, the demand curve for capital moved steadily rightward, and has been doing so since the eighteenth century. Tunzelmann argues that in some cases technological change works mainly through increasing the capital employed, not only by raising productivities.[20] (To continue with an audience of economists for a moment, the area under the marginal product of capital is of course national income as a whole. You can devise models in which saving out of the rising national income becomes innovation, which raises income, which raise innovation, in a virtuous spiral. But then you have to explain why such a mechanism only applies to the past two or three centuries. You are back to having to explain the Age of Innovation by

19 Fogel 2005.

20 Tunzelmann 2003, p. 89.

something unique to the Age of Innovation. It can't be wholly endogenous.[21]) Human resourcefulness that was rare before 1700 and increasingly common afterwards made us rich. Like Shakespeare's alphabet, the saving and investment required to express the innovations were rather easily supplied.

The ease shows in Feinstein's own splendid table of investment as a share of gross national incomes of a dozen countries, 1770-1969.[22] The claim is that investment was "crucial" for innovation. From 1770 to 1839 Britain was the most innovative economy on earth, and later it was no slacker, arriving at last among the richest countries. And yet savings/investment rates in Britain were lower than in most of the dozen countries, as I noted, and by the late nineteenth century about half the savings was invested abroad. Britain's rate 1770-1839 was about 7.5 percent, and not until the 1960s did it briefly exceed 15 or 16 percent. The early, 7.5 percent figure was exceeded by every one of the other eleven countries in the table, taken over the two or three decades in which their figures begin to be available—decades which usually corresponding to their entry into industrialization. It is Feinstein who introduces the talk of "stages," and so there cannot be a complaint that France in the 1820s and 1830s is not to be compared with Britain earlier: the comparison is at the same "stage." And setting stage thinking aside, in any given decade across the table the British rates are commonly lower than in the other countries. If investment and saving were crucial to economic growth, then Britain with its low rates of

21 McCloskey 1995.

22 Feinstein 2003, p. 45. The table stands as a monument to the massive scholarly effort of numerous economic historians since Simon Kuznets invented the methods in the 1930s and 1940s.

investment would not have been the leader in industrialization. Rates of investment and saving rose as a *result* of innovation. They did not cause it.

What was indeed "crucial" was the innovation itself, the steam engines and the steel ships, the hybrid corn and the agricultural cooperatives. What was crucial was working smarter, not harder, as the South African economist Stanislav du Plessis puts it. Du Plessis is summarizing what all economists and economic historians have known since the 1960s—that sheer accumulation of frozen labor in capital is not what has made us rich. Yet in 2003 Feinstein (also by the way a South African) was still resisting the finding, part of which he himself had established. He quoted with approval an opinion of the economist Arthur Lewis in 1954, when capital fundamentalism was forming and before the scientific work showing it to be misleading had been done, that "the central problem. . . is to understand . . . [how] a community which was previously saving and investing 4 or 5 percent of its national income or less converts itself into an economy where voluntary saving is running at about 12 or 15 percent."[23] I have noted that in an agricultural economy with low yield-seed ratios the figure has to be much higher than 4 or 5 percent. Perhaps Lewis meant by "voluntary saving" the saving above "involuntary"—net of depreciation, say, and the storing of seed. But in that case the innovations that made physical depreciation lower or that made unnecessary massive "involuntary" saving for seed are what explains the modern world, not piling brick on brick. And anyway the Lewis-Feinstein argument would have led to modern economic growth

[23] Feinstein 2003, p. 46.

in, say, ancient Greece or China, in which savings rates could so easily be driven up to 12 or 15 percent: merely force the slaves in the silver mines of Laurion, or the workers before they were entombed in the Great Wall, to eat less.

Capital fundamentalism, in short, has been rejected scientifically, despite echoes in the minds of economists who very much want it to be true. Capital is a fine thing to have. But it is easily gotten by loan when the prospect for innovation is large. Capital is not the constraint, not in the long run. Smarter, not harder or more extensive (and capitalized) work did the modernizing. Innovation puts smartly into practice the idea of a light bulb or of limited liability. The word "capitalism," with its hidden assumption that piling up frozen labor does the trick, du Plessis notes, was applied in the nineteenth century to the system of property rights coordinated by prices before we grasped that the innovation encouraged by such a system is what chiefly matters.

Schumpeter defines capitalism variously at various times. His definition in *Business Cycles* (1939) is "that form of private property economy in which innovations are carried out by borrowed money."[24] In other words, "we shall date capitalism as far back as the element of credit creation," by which he means fractional reserve banking—in effect any sort of money storage in which the storer is not legally or practically liable to keep all the money on hand all the time. He notes that such institutions existed in the medieval Mediterranean before they existed in Northern Europe, and so he would be unsurprised to find business cycles there. (He

[24] Schumpeter 1939, Vo. I, p. 223. The next quotation is from p. 224.

did not realize that Asia had such institutions hundreds of years before.) He claimed in his posthumous *History of Economic Analysis* that "by the end of the fifteenth century most of the phenomena we are in the habit of associating with that vague word Capitalism had put in their appearance."[25] And yet it would be three more centuries before modernity emerged, economically speaking. Finance and saving and investment cannot have been crucial, or else Florence or Augsburg (or Beijing) would have innovated us into the modern world.

Capitalism on Schumpeter's 1939 definition forms part of a private enterprise economy, but there can be private enterprise and innovation without credit and therefore without "capitalism." Note, however, that what is at stake in Schumpeter's argument is the *use* to which the thrift is put, *not* its total amount. Schumpeter said it was used for innovation. Yet even Schumpeter, the inventor of innovation in the modern analysis of the economy, allows himself to be tempted by the word "capitalism" into discussing finance. It is not thrifty finance, however, that changed everything—as he himself elsewhere agrees. What changed everything was using trust for innovation, Newcomen's tinkering with atmospheric engines, Rothschild's style of massive arbitrage, Edison's first generator in Manhattan, Alfred P. Sloan's years at General Motors.

25 Schumpeter 1954, p. 78.

Chapter 12:

Nor Because of a Rise of Greed or of a Protestant Ethic

Nor does modern innovation have anything unusually "greedy" about it. In characterizing capitalism in 1867 as "solely the restless stirring for gain" Marx said he was quoting the bourgeois economist J. R. McCulloch's *Principles of Political Economy* (edition of 1830): "This inextinguishable passion for gain, the *auri sacra fames* ['for gold the infamous hunger'], will always lead capitalists."[26] But it leads everyone else, too. *Auri sacra fames* is from *The Aeneid* (19 B.C.E.), Book III, line 57, not from Benjamin Franklin or *Advertising Age.* In 1905 Max Weber, writing when the German Romantic notion that medieval society was more sweet and egalitarian than the Age of Innovation was just starting to crumble in the face of historical research, thundered against such an idea that greed is "in the least identical with capitalism, and still less with its spirit." "It should be taught in the kindergarten of cultural history that this naïve idea of capitalism must be given up once and for all." In his posthumous *General Economic History* (1923) he wrote, "the notion that our rationalistic and capitalistic age is characterized by a stronger economic interest than other periods is childish."[27] The lust for gold, "the impulse to acquisition, pursuit of gain, of money, of the greatest possible amount of money, has in itself nothing to do

[26] Quoted in Marx 1867 (*Capital*, Vol. I, p. 171n2). I can't find the phrase in any of the on-line editions of McCulloch's *Principles*. Note by the way the use of the word "capitalist," which occurs in McCulloch over 100 times (and "capitalism" never). The *Oxford English Dictionary* gives *Arthur Young's Travels in France* of 1792 as the first quotation for "capitalist." Ricardo used the word little. The first quotation in the *OED* for "capital" in the economic sense is 1709.

[27] Weber 1923, p. 355.

with innovation. This [greedy] impulse exists and has existed among waiters, physicians, coachmen, artists, prostitutes, dishonest officials, soldiers, nobles, crusaders, gamblers, and beggars. One may say that is has been common to all sorts and conditions of men at all times and in all countries of the earth, wherever the objective possibility of it is or has been given."[28]

People have indulged in the sin of greed, for food or money or fame or power, since Eve saw that the tree was to be desired, and took the fruit thereof. Soviet Communism massively encouraged the sin of greed, as its survivors testify. Medieval peasants accumulated no less "greedily" than do American corporate executives, if on a rather smaller scale. Hume declared in 1742 that "Nor is a porter less greedy of money, which he spends on bacon and brandy, than a courtier, who purchases champagne and ortolans [little song birds rated a delicacy]. Riches are valuable at all times, and to all men."[29] Of course.

Many readers of the magnificent historical Chapters 25-31 of *Capital* will find all this hard to believe. Marx's eloquence persuades them that someone writing in 1867, very early in the professionalization of history, nonetheless got the essence of the history right. Another of his great riffs, Chapter 15 on "Machinery and Modern Industry" (150 pages in the Modern Library edition of the English translation), trumpeted the truth that he was witnessing an Age of Innovation. But he subordinated the tune to his historical harmonizing, the growth of surplus value. The history that Marx thought he perceived went with his erroneous logic that

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28 Weber 1905, p. 17.

29 Hume , "Of Refinement in the Arts" ***[1742: "Of Luxury"] in Haakonssen, ed., p. 111.

capitalism—drawing on an anti-commercial theme as old as commerce—just *is* the same thing as greed. Greed is the engine that powers his sequence of M → C → M'. It says: Money starting through some original theft or thriftiness as an amount M gets invested in Capital (commodities used for profit), which is intrinsically exploitative (and so amplifies the original theft or thrift), generating surplus value appropriated by the capitalist to arrive at a new, higher amount of money, M'. "We have seen how money is changed into capital; how through capital [a] surplus-value is made, and from surplus value more capital." And then again and again and again, in the inaccurate English translation of Marx's German, "endlessly."[30]

The classical and Marxist idea that capital begets capital, "endlessly," is hard to shake. Thus Immanuel Wallerstein in 1983 spoke of "the endless accumulation of capital, a level of waste that may begin to border on the irreparable."[31] It has recently revived a little among economists, in the form of so-called "new growth theory," which amounts to giving M → C → M' a mathematically spiffed-up form. The "endless"/"never-ending" word, by the way—which was echoed during the Dark Ages in rural and monkish economic theory and still resonates in all our notions of "capitalism"—originated twenty-four centuries before Marx in the Greek aristocratic disdain for commerce. People of business (declared aristocratic Plato and aristocrat-loving Aristotle) are motivated by *apeiros,* unlimited, greed. Thus Aristotle in the *Politics.* The "no limit" in Aristotle is about buying low and selling

30 For example, Marx 1867, Chp. 24, Sec. 1, p. 641; and Chp. 26, p. 784.

31 Wallerstein 1983 (1995), p. 100. "Waste" such as decent housing for the Chinese.

high.[32] In the thirteenth century Aquinas, referring to Aristotle with a little less than his customary enthusiasm for The Philosopher, retails the usual complaint against retailing, which depends on "the greed for gain, which knows no limit and tends to infinity."[33] As the political scientist John Danford observes, "the belief that there is something objectionable about [arbitrage] has persisted for more than two thousand years. . . . The enduring legacy . . . was. . . the view that . . . commerce or the acquisition of wealth is not merely low; it is unnatural, a perversion of nature, and unworthy of a decent human being."[34]

For all Marx's brilliance—anyone who does not think he was the greatest social scientist of the nineteenth century has not read enough Marx, or is blinded by ideology or by the unhappy effects of Marxian writings on the politics of the twentieth century—he got the history wrong. Whatever the value of his theories as a way of asking historical questions, you cannot rely on Marx for any important historical fact: not on enclosures, not on the fate of the workers, not on the results of machine production, not on the false consciousness of the working class. The great Marxist historian Eric Hobsbawm, for example, a proud member of the Communist Party of Great Britain until its dissolution in 1991, admits that the historical knowledge of Marx and Engels was on many points "thin." No serious Marxist historian writing in English, such as Hobsbawm or Christopher Hill or E. P. Thompson, has taken historical facts from Marx.[35]

32 Aristotle, *Politics* 1257a20, *kai apeiros dê houtos ho ploutos*.

33 Aquinas 1251-1273, Second Part of the Second Part, Question 77, Art. 4, "I answer that."

34 Danford 2006, pp. 328-329.

35 Hobsbawm 1964, "Introduction" to *Marx, Pre-Capitalist Economic Formations*, cited by Pipes 1999, p. 52n.

It is not some special Marxian fault. The same is true of the other practitioners of merely philosophical history before the facts started at last arriving in bulk after the full professionalization of history, during the twentieth century. Locke, Hume, Rousseau, Smith, Hegel, Macaulay, Tönnies, Durkheim, and even, a late instance, Max Weber on many points, and still later Karl Polanyi (and less excusably the many recent followers of Polanyi), got the historical facts more or less wrong, and tended to get them wrong in the same way.[36] You would be foolish to depend mainly on Polanyi or Weber or even my beloved and liberal Macaulay, or even my worshipped and liberal Adam Smith, for your understanding of the past. The theory of capitalism that educated people to this day carry around in their heads springs from the anti-bourgeois rhetoric of Marx, St. Benedict, and Aristotle. It is economically mistaken. And the point here is that it is historically mistaken as well.

The myth of *Kapitalismus* says that thrift among the bourgeoisie consisted precisely in the absence of a purpose other than accumulation for its own sake, solely the restless stirring for gain. Declared the man himself in 1867, capitalism entails "accumulation for accumulation's sake, production for production's sake." "Accumulate, accumulate! This is Moses and the prophets!"[37] Thus the left-wing economist, my misled but princely acquaintance the late Robert Heilbroner: "capitalism has been an expansive system from its earliest days, a system whose

[36] Santhi Hejeebu and I have laid out the case in favor of Polanyi's understanding of second best against Polanyi's economic history in Hejeebu and McCloskey 2000 and 2003.

[37] Marx 1867, Chp. 24, p. 652.

driving force has been the effort to accumulate ever larger amounts of capital itself."[38] Thus Weber, too, in 1905: "the *summum bonum* of this ethic [is] the earning of more and more money. . . . Acquisition . . . [is] the ultimate purpose of life."[39] Weber here, contrary to his thundering quoted above, retails Marx, money-to-capital-to-money. True, skill at acquisition is an "expression of virtue and proficiency in a calling." But innovation was in historical fact not skill at accumulation. Imagination was not restless stirring for gain. Socially profitable originality was not duty in a calling. What made us rich was a new rhetoric favorable to innovation, imagination, originality—not accumulation restlessly stirring, or mere duty to a calling, which are ancient and routine and uncreative, though often Good Things.

At the level of individuals there has never been any evidence for the historical change that is supposed to characterize modern forms of greedy thrift. People were greedy and thrifty, I repeat, long before. The chief evidence for a change in thriftiness that Weber himself gives in *The Protestant Ethic and the Spirit of Capitalism* is a humorless reading of Benjamin Franklin's two-page *Advice to a Young Tradesman* (1748). He misses for example the deflating sting in the last lines: "He that gets all he can honestly, and saves all he gets . . . will certainly become *rich*, if that Being who governs the world, to whom all should look for a blessing on their honest endeavors, doth not, in His wise providence, otherwise determine." So nothing is

38 Heilbroner 1953, p. 201. Compare p. 156, "an owner-entrepreneur engaged in an endless [*apeiros*] race," and so forth.

39 Weber 1905, p. 53.

"certainly," young tradesman, even if you bizarrely save *all* you get (as Franklin assuredly did not). And he missed in "He that murders a crown, destroys all that it might have produced, even scores of pounds" the parodic echo of the previous year's "Speech of Miss Polly Baker." Avid Franklin readers, of which there were many, would have noted the echo. Prosecuted for giving birth to her fifth illegitimate child, Polly as ventriloquised by Franklin chides "the great and growing number of bachelors in the country, many of whom, . . . have never sincerely and honorably courted a woman in their lives; and by their manner of living leave unproduced (which I think is little better than murder) hundreds of their posterity to the thousandth generation. Is not theirs a greater offence against the public good, than mine?" The Yale historian and editor of the massive Franklin Papers, Claude-Anne Lopez, once remarked that Franklin will lack an adequate biography until someone with a sense of humor attempts it.

Weber read Franklin's *Autobiography,* and like many others he took as the man's essence the famous printed account book of virtues that a young printer in Philadelphia used to discipline himself. Declared Weber, "the real Alpha and Omega of Franklin's ethic. . . in all his works without exception" is that expression of proficiency in a calling. No it isn't. Like many other readers of Franklin, especially non-American readers—most famously D. H. Lawrence in his *Studies in Classic American Literature* (1923)—Weber missed the joke. Lawrence called Franklin "the sharp little man. . . . The pattern American, this dry, moral, utilitarian little democrat," and other Europeans have viewed him with similarly humorless and uncomprehending scorn.[40] Weber's nephew wrote a book in 1936 explaining why Uncle Max got Franklin so wrong: "Nations are curiously incapable of understanding each other's sense of humor. . . . [Weber] carefully constructed an elaborate theory of Franklin's ascetic economic ethos as one of the essential foundations of modern capitalism, . . . which is repeated uncritically from all kinds of pulpits. . . with learned mien and a pronounced shyness to consult the sources."[41]

The frontiersman, wigless, "ascetic" image that Franklin projected for political purposes in France was contradicted even there by his actual behavior in humorous (and innocent) dalliances with the wives of French aristocrats. And he was nothing like singlemindedly devoted to his calling as a printer and businessman, even when before age 42 he was practicing it. Young and old, Franklin was multiminded. Weber failed to note Franklin's actual behavior as a loving and passionate friend and patriot, a deeply curious man very willing to wander from his calling to measure the temperature of the Gulf Stream, though getting the current job done on time; or his amused self-ironies about his young self. Amused self-ironies were a *franklinische*, and later an American, specialty. The most well-known of the amused self-ironies in Franklin's *Autobiography* is his comment about a late addition to his checklist of virtues, Humility: "I cannot boast of much success in acquiring the *reality* of this virtue; but I had a good deal with regard to the

[40] Lawrence 1923, p. 23; compare for example Robert Louis Stevenson's sneer at the teachers of our average men, who "from Solomon down to Benjamin Franklin . . . have inculcated the same ideals of manners, caution, and respectability" (Stevenson 1881, p. 876). Even Alasdair MacIntyre, that perceptive Scot resident in America, mistakes Franklin.

[41] Baumgarten, "Benjamin Franklin: Der Lehrmeister der amerikanischen Revolution," 1936, quoted in Roth 1987, p. 19. Lujo Brentano, the German economist, whose English (as Roth explains) was much better than Weber's, made the same point.

appearance of it." It is hard miss the nudge in the ribs. But some people have nonetheless missed it, in their eagerness to pillory the bourgeoisie.

Franklin's writing, when not dead serious (after all, he helped draft the Declaration of Independence and the Treaty of Paris), is jammed with such clowning around. In 1741 *Poor Richard's Almanac* predicted only sunshine, every day of the year. "To oblige thee more," Poor Richard explained to his dear reader, "I have omitted all the bad weather." The parody shouts itself. Yet many readers of Franklin don't get it—most influentially in his self-parodying compilation of Poor Richard's proverbs, "The Way to Wealth." It was published in 1758, when Franklin was precisely *not* pursuing wealth as a printer, or anything else of proficient and profitable calling, but representing the Pennsylvania Assembly in London, at his own considerable expense, having entirely given up the "duty of the individual to increase his capital" that Weber sees in him. Jill Lapore notes that "The Way to Wealth" is "among the most famous pieces of American writing ever, and one of the most willfully misunderstood." Its thrifty recommendation of "no gains without pains" and other supposedly bourgeois formulas "has been taken for Benjamin Franklin's—and even America's—creed."[42]

Yet only a humorless reading would find in it a sharp little capitalist, a pattern American, declaring for Prudence Only. Mark Van Doren tried in 1938 to get people to read Franklin rightly, complaining for example that the "dry, prim people" "praise [Franklin's] thrift. But he himself admitted that he could never

[42] Lepore 2008, p. 78.

learn frugality, and he practiced it no longer than his poverty forced him to." Quoting Van Doren, Lapore lists Franklin's massive purchases in 1758 sent back to his wife in Philadelphia. Franklin attached a proud spender's notation that "there is something from all the china works in England."[43] The misreaders, Van Doren had continued, "praise his prudence. But at seventy he became a leader of a revolution."

Lapore points out that most of Poor Richard's proverbs in the almanacs themselves were not in fact about Prudence Only. Franklin selected the money-making ones for "The Way to Wealth" because his mission in London was to try to persuade the British government to remove some small taxes on their fellow countrymen in the colonies. To his fellow colonists, in line with his optimism that with temperance on both sides the Empire could hold together, he was noting in the voice of Father Abraham that "the taxes are indeed very heavy. . . but we have many others, and much more grievous to some of us. We are taxed twice as much by *idleness,* three times as much by *pride,* and four times as much by *folly*." The figure of argument was ancient, and nothing like American or utilitarian. Seneca wrote: "Show me a man who isn't a slave. One is a slave to sex, another to money, another to ambition. . . . There's no state of slavery more disgraceful than one that's self-imposed."[44] And "Franklin might have chosen to collect," Lepore notes, "the dozens of Poor Richard's proverbs advising *against* the accumulation of wealth. *The poor have little, beggars none;/ The rich too much, enough not one.*"[45]

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43 Lepore 2008, pp. 82, 81.

44 Seneca, Letter XLVII, 17, p. 95, ending *nulla servitus turpior est quam voluntaria.*

45 Lepore 2008, p. 82.

Lepore agrees with all careful students of Franklin that, as the man himself put it, he "would rather have it said, *He lived usefully,* than, *He died rich.*" Greedy thrift in the Marxian tale, by contrast, has the sole *telos* of dying rich. Charles Dickens, brought up in the law in London, who himself was an entrepreneur in theatre and publishing but could not understand other profitable trades, gave us Scrooge, and his Disney descendant Scrooge McDuck—accumulate, accumulate. Max Weber modified the pointlessness of the impulse to accumulate, accumulate by claiming that "this philosophy of avarice" (allegedly Franklin's, remember) depends on a transcendent "*duty* of the individual toward the increase of his capital," yielding a "worldly asceticism."[46] But Franklin, who after all had lost most other traces of his ancestors' Calvinism, whether spiritual or worldly (by contrast with his abstemious young friend and enemy John Adams, for example). He abandoned at age 42 "endless" accumulation and devoted the other half of his long life to science and public purposes, and world-relishing consumption.[47] If, as Weber argued, the religious element drops out and accumulation takes over, one would like to know why accumulation did *not* take over, in Franklin or in Carnegie or in Gates. The same could be said, and has been by Joel Mokyr, for the rigorous Calvinists of seventeenth century Holland—the same ones who spent their incomes on merchant palaces along the Singel, and on luscious oil paintings officially warning of the vanity of mere matter by showing a polished silver tray with a half peeled lemon and a beaker full of the warm south. So much for "worldly asceticism" or "ever

46 Weber 1905, p. 51, italics supplied.

47 See the section "Retirement," pp.126-128 in Isaacson 2003.

larger amounts of capital itself" or a "duty toward the increase of capital" or "accumulate, accumulate."

Many fine scholars have taken in with their mother's milk a belief that modern life is unusually devoted to gain, and that thrift is therefore something recent, dirty, and bourgeois, though lamentably profitable—because of exploitation in $M \rightarrow C \rightarrow M'$. "The unlimited hope for gain in the market," writes the otherwise admirable political theorist Joan Tronto, "would teach people an unworkable premise for moral conduct, since the very nature of morality seems to dictate that desires must be limited by the need to coexist with others."[48] But running a business, unlike professing at a university, would teach anyone that gain is limited. Dealing in a market, unlike sitting in the Reading Room of the British Museum during the 1850s and 1860s writing burning phrases against the market, would teach that desires must be limited by the need to coexist with others. The tuition of a market society in scarcity, other-regarding, and liberal values works as an ethical school. As the historian Thomas Haskell put it in 1985, "contrary to romantic folklore, the marketplace is not a Hobbesian war of all against all. Many holds are barred. Success ordinarily requires not only pugnacity and shrewdness but also restraint," that is, the virtue of temperance.[49]

Even so fine an historian as Alan Macfarlane believes the Aristotelian /Marxist/ Weberian lore: "the ethic of endless accumulation," he writes, "as an end

48 Tronto 1993, p. 29.

49 Haskell's remark is quoted in Innis 1988, p. 39n61.

and not a means, is the central peculiarity of capitalism."[50] If it were, the miser would be a strictly modern figure, and not proverbial in every literature in the world. Around 1665 the poet Abraham Cowley (a royalist version of Milton) wrote of avarice that "there is no vice that has been so pelted with good sentences, and especially by the poets, who have . . . moved, as we say, every stone to fling at it," and gave an example from his own pen:

> What would content you? who can tell?
>
> Ye fear so much to lose what ye have got
>
> As if ye lik'd it well,
>
> Ye strive for more as if lik'd it not.

He translates Horace to the same effect, and quotes a line he attributes to Ovid: *Desunt luxuriae multa avaritiae omnia* (Many things are wanting to Luxury, [but] everything to Avarice).[51] As Cowley implies, however, go anywhere in literature or preaching or law from Mesopotamia to the moderns and you will find similar sentiments about the avaricious miser—who is supposed in modernist theorizing to arise suddenly around 1750 out of Calvinist ancestry in the form of the sharp little man, this dry, moral, utilitarian little democrat. In China the poet Tang Bo Ju-yi (772-846 C.E.) complains of the salt-tax monopolist that "The salt merchant's wife/ has silk and gold aplenty,/ but she does not work at farming [the only honored source of things],/. . . . Her gleaming wrists have gotten plump,/ Her silver

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50 Macfarlane 1987, p. 226.

51 Cowley c. 1665, pp. 198, 197. The Horace is the First Satire (beginning "How comes it to pass, Maecenas, that no one lives content with his condition?"), but the Ovid is actually Publilius Syrus, maxim 121, with *inopiae*, "to poverty," substituted for *luxuriae*, (www.thelatinlibrary.com/syrus.html), and was quoted in Seneca.

bracelets tight." Or Liu Zong-yuan (773-819 C.E.), in a parable comparing the miser to a pack beetle: “Those in our own times who lust to lay hold of things will never back away when they chance on possessions by which to enrich their household [just like the beetle carrying whatever useful he encounters twice his weight on his back]. They don’t understand that it encumbers them, and fear only that they won’t accumulate enough.”[52]

“In this consists the difference between the character of a miser," wrote Adam Smith in 1759, "and that of a [thrifty] person of exact economy and assiduity. The one is anxious about small matters for their own sake; the other attends to them only in consequence of the scheme of life which he has laid down for himself."[53] He might as well have been describing Ben Franklin before he was wealthy, or his friend Mr. William Crauford, a merchant of Glasgow, whom he did describe in 1758: “Who to that exact frugality, that downright probity and plainness of manners so suitable to his profession, joined a love of learning, . . an openness of hand and a generosity of heart. . . . candid and penetrating, circumspect and sincere.”[54] Accumulate, accumulate, or plumping ones wrists, or laying hold of everything like a pack beetle, is not a "scheme of life" in the ethical sense that Smith had in mind.

At the level of the society as a whole there *is* "unlimited" accumulation, at any rate if rats and fire and war do not intervene. Corporations are streams of such accumulation, having legally infinite lives—though in truth many little corporations

52 From Owen 1996, pp. 501, 617-618.

53 Smith 1759 (1790), III.6.6, p. 173.

54 Smith, *Essays on Philosophical Subjects*, p. 262.

die every year, and a few big ones (thus Lehman Brothers, Washington Mutual, WorldCom, and General Motors).[55] The individual economic molecules who make up the river of innovation may not always want to accumulate, accumulate beyond age 42, but the river as a whole, it is said, keeps rolling along. It is true, and to our good. The books and machines and improved acreage and splendid buildings and so forth inherited from an accumulating past are good for us now. Thanks be to the ancestors.

But there is no historical case for "accumulate, accumulate" being peculiar to modern times. Crassus and Seneca accumulated. The presence of old buildings is not historically recent, suddenly accumulated in the Age of Innovation. Very long-lived institutions like families or churches or royal lineages existed before 1700, and were themselves, too, sites of accumulation. Thus the long-lived improved acreage could spread up the hillsides under the pressure of population before the Black Death. Thus the long-lived medieval cathedrals were raised over centuries. Thus the long-lived Oxford colleges were built, and endowed with long-lived real estate, itself the accumulated investment in long-lived drains and stone fences and brick barns. Thus the canals of China and the roads of Peru.

The classical economists from Adam Smith to Marx were writing before the upsurge in real wages of British and French and American working people in the last half of the nineteenth century, and long before the explosion of world income in

55 Lex Donaldson (1995, p. 75), following Alfred Chandler, argues that of the largest American corporations only 2 percent vanish every year, and few of these from closing down—they get merged instead. But those are the big boys, too big to fail. Siegel (2002, p. 638, Fig. 14-1) reckons that all U.S. enterprises with any sort of payroll, not merely the big ones, have death rates of about 17 percent in each of their first couple of years, decreasing to 7 percent per year if they survive to age 14.

the twentieth century. They imagined a moderate rise of income per person, perhaps at the most by a factor of two or three, such as might conceivably be achieved by Scotland's Highlands becoming similar to capital-rich Holland (Smith's view) or by manufacturers in Manchester stealing savings for reinvestment from their poor workers (Marx's view) or by the savings generated from globalization being invested in European factories (John Stuart Mill's view). (To speak again to my economist colleagues, they contemplated moving down the marginal product of capital—not its shocking lurch to the right.) But the classical economists, to repeat, were mistaken.

The prehistory of thrift was revolutionized around 1960 when economists and economic historians realized with a jolt that thriftiness and savings could not explain the Industrial Revolution. The economists such as Abramowitz, Kendrick, and Solow discovered that only a smallish fraction even of recent economic growth can be explained by routine thrift and miserly accumulation. At the same time the economic historians were bringing the news that in Britain the rise in savings was too modest to explain much at all. Simon Kuznets and later many other economists such as Charles Feinstein provided the rigorous accounting of the fact—though as students of capital accumulation they could never quite overcome their initial hypothesis that Capital Did The Trick. The aggregate statistical news was anticipated in the 1950s and 1960s by numerous economic historians of Britain such as François Crouzet and Philip Cottrell and Sidney Pollard, in detailed studies of the financing of industry. Peter Mathias summarized the case in 1973: "considerable revaluation has recently occurred in assessing the role of capital."[56] That is no overstatement.

The trouble is that savings and urbanization and state power to expropriate and the other physical-capital accumulations that are supposed to explain modern economic growth have existed on a large scale since the Sumerians. Yet modern economic growth—that wholly unprecedented factor in the high teens (or low hundreds if quality of goods is measured properly)—is a phenomenon of the past two centuries alone. Something happened in the eighteenth century that prepared for a temporary but shocking "great divergence" of the European economies from those of the rest of the world.

The classical and flawed view, overturned by the economic historians of the 1950s and 1960s, is that thrift implies saving which implies capital accumulation which implies modern economic growth. It lingered in a few works such as Walt Rostow's *The Stages of Economic Growth* (1960), and most unhappily in what Easterly called the capital fundamentalism of foreign aid, 1950 to the present. The belief was that if we give Ghana over several decades large amounts of savings, leading to massive capital investments in artificial lakes and Swiss bank accounts, and give Communist China not a cent, Ghana will prosper and Communist China will languish.[57] Inevitably. The mathematics on the blackboard says so.

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56 Mathias 1973 (1979), p. 88.

57 Rostow 1960; Easterly 2001.

Chapter 13:

Nor Because of Original Accumulation

Of course, if you think up a waterpower-driven spinning machine, as both the Chinese and the British did, you need some thrifty savings somehow accumulated to bring the thought to fruition. But another of the discoveries of the 1960s by economic historians was that the savings required in England's heroic age of mechanization were modest indeed, nothing like the eventually massive offspring of the "original accumulation of capital" that Marxist theory posits. Early cotton factories were not capital-intensive. Even in the 1830s, as François Crouzet noted, the percentage of all capital "sunk into fixed assets. . . was indeed small (25 percent, 20percent or less) even in the most 'capital intensive' firms."[58] The source of the industrial investment required was short-term loans from merchants for inventories and longer-term loans from relatives—not savings ripped in great chunks from other parts of the economy. Such chunk-ripping "capitalism" awaited the Railway Age.

The *marxisant* analysis is that what happened earlier was the original accumulation of capital. The original or primitive accumulation was according to Marx the seed corn, so to speak, or better the starter in the sourdough, in the growth of capital. We're back to thrift or savings, not by historical fact but by blackboard logic. "The whole movement," Marx reasoned, "seems to turn on a vicious circle, out

58 Crouzet 1985, p. 9.

of which we can only get by supposing a primitive accumulation, . . . an accumulation not the result of the capitalist mode of production, but its starting point."[59] The reasoning sounds plausible. It appeals, like Malthusian predictions of limits, to a mathematics. But it didn't happen. As the economic historian Alexander Gerschenkron put it in 1957, with characteristic sarcasm, the primitive or original starting point is "an accumulation of capital continuing over long historical periods—over several centuries—until one day the tocsin of the Industrial Revolution was to summon it to the battlefields of factory construction."[60]

Marx's notion in *Capital* was that an original accumulation was a *sine qua non*, and had nothing to do with "that queer saint . . . of the woeful countenance, the capitalist 'abstainer'." There was no saintliness about it. The original accumulation was necessary (Marx averred) because masses of savings were necessary, and "conquest, enslavement, robbery, murder, briefly, force, play the greater part."[61] He instanced enclosure in England during the sixteenth century (which has been overturned by historical findings that such enclosure was economically minor) and in the eighteenth (which has been overturned by findings that the labor driven off the land by enclosure was a tiny source of the industrial proletariat, and enclosure happened then mainly in the south and east where in fact little of the new sort of industrialization was going on).[62] He gave a large part then to regulation of wages in creating a proletariat for the first time in the sixteenth century (which has been

59 Marx 1867, p. 784.

60 Gerschenkron 1957 (1962), p. 33.

61 Marx 1867, p. 785.

62 McCloskey 1975a, and works cited there.

overturned by findings that nearly half of the labor force in England as early as the thirteenth century already worked for wages; and that attempts to control the labor market did not work).[63] And then to the slave trade: "Liverpool waxed fat on the slave-trade. This was its method of primitive accumulation" (which has been overturned by findings that the alleged profits were no massive fund).[64] Later writers have proposed as the source of the original accumulation the exploitation by the core of the periphery (Poland, the New World).[65] Or the influx of gold and silver from the New World—strange as it is then that imperial Iberia did not industrialize. Or the exploitation of workers themselves during the Industrial Revolution, out of sequence. Or other loot from imperialisms old and new, too small to matter much, and also too late. Or, following on Marx and Engels' assertion in the *Manifesto*, even seventeenth-century piracy, tiny impositions on the flow of Spanish treasure by Sephardim venturing from Jamaica and runaway slaves from Hispaniola.[66]

None of these, it has been found, makes very much historical sense. If they happened at all, they are too small to explain what is to be explained. Such historical findings are in truth not very surprising. After all, conquest, enslavement, robbery, murder—briefly, violence—has characterized the sad annals of humankind since Cain and Abel. Why did not earlier and even more thorough expropriations result in an industrial revolution and a factor of sixteen or twenty or one-hundred in

63 Postan 1966, p. 622, that "in order to subsist an average smallholder [more than one half of the population in a sample of 104 manors in southern England] had to supplement his income in other ways." Postan was not optimistic that all would get wage work, but from the hiring side he inferred that many did (p. 623).

64 Marx 1867, p. 833.

65 Wallerstein 1974.

66 Kritzler 2008.

the widened scope of the average Briton or American or Taiwanese? Something besides thrifty self-discipline or violent expropriation must have been at work in northwestern Europe and its offshoots in the eighteenth century and later. Self-discipline and expropriation have been too common in human history to explain a Revolution gathering force in Europe around 1800.

And as a practical matter a pile of physical capital financed from, say, Piet Heyn's seizure of the Spanish treasure fleet in 1628 would by the year 1800 melt away to nothing. It does not accumulate. It depreciates. And as Gerschenkron noted, "why should a long period of capital accumulation *precede* the period of rapid industrialization? Why is not the capital as it is being accumulated also invested in industrial ventures?"[67] Why not indeed. In the story of original accumulation the clever capitalists are supposed to let their capital lie idle for centuries until the "tocsin" sounds.

People seem to be mixing up financial wealth and real wealth. Financial wealth in a bank account is merely a paper claim to the society's real wealth by this person against that person. The society's real wealth itself, on the other, is a house or ship or education. From the point of view of the society as a whole the real wealth is what's needed for real investment, not paper claims or gold coins. The paper claims are merely ways of keeping track of who owns the returns to the capital. They are not the real capital itself. You can't build a factory with pound notes, or dig a canal with bank accounts. You need bricks and wheelbarrows, and

[67] Gerschenkron 1957 (1962), p. 34.

people skilled to wield them. Mere financing or ownership can hardly be the crux, or else the Catholic Church in 1300, with its dominate command of tokens of wealth, would have created an industrial society. Or the Philips II, III, and IV of Spain—who after all were the principal beneficiaries of the treasure fleets the English and Dutch privateers preyed upon—would have financed industrial revolutions in Bilboa and Barcelona instead of obstructing them.

Any original accumulation supposed to be useful to any real industrialization must be available in real things. But as the Koran says, "what you possess [in real, physical things] will pass, but what is with God will abide" (16:96). "These lovely [earthly] things," wrote St. Augustine, "go their way and are no more. . . . In them is no repose, because they do not abide."[68] A real house made in 1628 out of Piet's profit from robbing Spain would be tumbled down by 1800, unless in the meantime its occupants had continued to invest in it. A real educated person of 1628 would be long dead, a real machine would be obsolete, a real book would be eaten by worms. The force of depreciation makes an original accumulation spontaneously disappear.

This is not to say, note well again, that conquest, enslavement, robbery, and murder play no part in European history. A Panglossian assumption that contract, not violence, explains, say, the relation between lord and peasant defaces the recent work on "new" institutionalism, such as that of Douglass North.[69] Yet, *pace* Marx, modern economic growth did not and does not and cannot depend on the scraps to be gained by stealing from poor people. It is not a good business plan: it never has

68 Augustine, *Confessions*, 398 AD, IV, x.

69 See Ogilvie's devastating empirical inquiry Ogilvie, 2004 into such Panglossian hypotheses.

been, or else industrialization would have happened when Pharaoh stole labor from the Hebrew slaves. Stealing from poor people, when you think about it, could hardly explain enrichment by a factor of sixteen, not speak of one hundred. Would you do so well by robbing the homeless people in your neighborhood, or by breaking into the home of the average factory worker? Would grabbing stuff from the poor of the world enrich the average person in the world, including those poor victims themselves, by a factor of ten since 1800? Does it strike you as plausible that British national income depended on stealing from an impoverished India? If so, you will need to explain why real income per head in Britain went *up* sharply in the decade after Britain "lost" India, and so too for all the imperial powers after 1945: France, Holland, Belgium, and at length even Portugal.

Modern economic growth has not depended on saving, and therefore has not depended on stealing to get the saving, or any other form of original accumulation, even the peaceful practice of the knights of the woeful countenance abstaining from consumption. Turgot and Smith and Mill and Marx and the new growth theorists among the economists, all of whom emphasize capital accumulation, get the story quite wrong. That the oldsters got it so wrong is unsurprisingly considering the stately pace at which the economies they were looking at were improving, at least by contrast with the frenetic pace after 1848 and especially after 1948, and most especially after 1978. (The youngsters of the new growth theories have no such excuse; they should have learned by now that modern economic growth is unique.) The early economists had a notion of modest modernization to the level of, say, the prosperous Netherlands in 1776, easily achievable by peace and routine investment, not a transformation to a level of suburban America in 2010, achievable only by a rate of innovation each year such as had never happened before. "All the authors [who] followed the Turgot-Smith line," wrote Schumpeter as the frenzy was becoming apparent, "[were] at fault in believing that thrift was the all-important [causal] factor."[70] Most savings for innovation, Schumpeter had noted twenty years earlier, "does not come from thrift in the strict sense, that is from abstaining from consumption. . . but [from] funds which are themselves the result of successful innovation" (in the language of accounting, "retained earnings").[71] The money for the few massive and capital-intensive innovations such as railways, he argues, comes from banks using "money creation." (The mysterious phrase "money creation" means simply the loans beyond the gold or dollars in their vaults that venturing bankers can make, on the hopeful supposition that not everyone will want their gold or dollars back at the same time. In a word, it is credit.)

But Schumpeter did not fully appreciate that even in the twentieth century of wide markets and big laboratories a company can expand without massive loans, rather in the way that the first innovations of the Industrial Revolution relied on retained earnings, trade credit, and modest loans from cousins and scriveners and solicitors. The big public offerings required 1840-1940 by capital-intensive industries such as railways, steel, chemicals, automobiles, electricity generation, and oil exploration and refining were unique. Economics as a science grew up in the Age of

70 Schumpeter 1954, p. 572n2.
71 Schumpeter 1926 [1934], p. 72.

Capital (as the historian Eric Hobsbawm called it). Naturally the economists such as Mill or Marx or Marshall became obsessed with physical accumulation. But as Hobsbawm and other historical materialists who have long lamented the dominion of capital do not sufficiently appreciate (though employed in the industry supplying education), 1840-1940 became an age increasingly of *human* capital. By now in rich countries the returns to human capital account for a much higher share of national income than do the returns to the land and especially to the machinery that so exercised the very first generation of economic historians—Marx, Arnold Toynbee (uncle of the historian of universal history), and their contemporaries.

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But human capital without the Revaluation of bourgeois innovation would have piled up merely another item in the Age of Capital, and would now give no persuasive explanation of enrichment. The economic historian David Mitch, the doyen of the educational historians of Britain, has shown that education of the masses played a small role in the early stages of the Industrial Revolution. "England, during its Industrial Revolution 1780 to 1840, experienced a notable acceleration in economic growth yet displayed little evidence of improvement in the educational attainments of its workforce."[72] Granted, a wholly illiterate country could hardly have taken advantage of the steam engine in the way the British did. Mitch makes the point with a hilarious counterfactual (intentional hilarity being not

72 Mitch 2003, p. 6; and Mitch 1992, 1999, 2003, 2004. Compare West 1978.

all that common in economic history) in which he imagines switching the populations of Britain and the Eskimo far north.[73]

By contrast, Richard Easterlin has answered the question "Why isn't the whole world developed?" by pointing to "the extent of [a] population's formal schooling." The difference between the two writers can be explained by the periods that Mitch and Easterlin are studying. Lately human capital has become indubitably important. But around 1840 it's hard to make the case that it was important for coal miners or cotton mill workers. Easterlin points out that the spread of technology is personal, in just the sense that the chemist and philosopher Michael Polanyi used the word in his book *Personal Knowledge* (1958), and quotes the economist Kenneth Arrow: "it seems to be personal contact that is most relevant in leading to. . . adoption" of a technique.[74] Technical knowledge is largely tacit, non-write-downable, and requires people quick on the uptake. Quickness of uptake—most relevant to recent years in which the technology to be taken up is so ample—can be encouraged by literacy.

But it can also be discouraged by literacy, leading to a rote-learning bureaucracy hostile to innovation. And if by itself teaching many more people to read was good for the economy, as it surely has been recently, it must be explained why Greek potters around 600 B.C.E. signing their amphora did not come to use water power to run their wheels and thence to ride on railways to Delphi behind puffing locomotive. And if not in 600 B.C.E, then why not later in the long history of

[73] Mitch 2004, p. 6.

[74] Arrow 1969, quoted in Easterlin 2004, p. 61.

the unusually literate Greeks? Easterlin in fact agrees, noting that high educational attainment in Spain early on was offset by the rigid (and anti-bourgeois) control by the post-Reformation Church.[75]

Education can make people free without making them rich. The historian George Huppert has told of the invention of widespread education in Europe from the sixteenth-century on.[76] The secular "grammar" schools prepared young men for careers in the clerisy, such as Huppert's hero the naturalist Pierre Belon (1517-1564), or Pierre Ramus (1515-1572), the Huguenot reformer and underminer of the medieval rhetorical tradition. The mushrooming merchant academies had a more practical curriculum than the grammar schools, seeking bourgeois and thrifty ways of making and doing things. In France especially, Huppert argues, education down to the level of village schools for peasants became a passion in the sixteenth century, and a worry for the Church: "even in the smallest towns of the kingdom," a priest wrote, "merchants and even peasants find ways of getting their children to abandon trade and farming in favor of the professions."[77]

Yet education without the new bourgeois rhetoric is merely a desirable human ornament, not the way to human riches. It makes for a clerisy that may in fact be hostile to bourgeois values, and very willing to become serviceable to the anti-economic projects of the emperor or the lord bishop. "For two centuries," wrote Mill in 1845, "the Scottish peasant, compared with the same class in other

75 Easterlin 2004, pp. 67-68.
76 Huppert 1977, 1999.
77 Huppert 1999, p. 100.

situations, has been a reflecting, an observing, and therefore naturally a self-governing, a moral, and a successful human being—because he has been a reading and a discussing one; and this he owes, above all other causes, to the parish schools. What during the same period have the English peasantry been?"[78] Yet the superior education, right up to the notable superiority of Scottish and German over English and French universities in the eighteenth century, did not make Scottish or German economic growth superior to English, or for that matter French. Education proved to be of little use without the liberal rhetoric that made innovation possible.

The economic historian Lars Sandberg spoke of Sweden as "the impoverished sophisticate": in 1800, though among the poorest countries in Europe, Swedes read at least the Good Book, because Luther had demanded it, and indeed Sweden boasted in Uppsala one of the oldest universities in Europe. In the late nineteenth and especially in the twentieth century Sweden could take advantage of its literacy, and there is no doubt that education does matter mightily to its standing now as one of the richest countries in the world.[79] But without a liberalized attitude towards innovation, such sophisticates would have kept their country impoverished. The educated Chinese elite did. The educated Spanish elite did. The Afrikaners during the nineteenth century were, as Calvinists, supposed to become literate enough to read the Bible. Many in fact didn't, until the reforms of Afrikaner education after

[78] Mill 1845.

[79] Sandberg 1979.

1900, which was accompanied by a self-conscious attempt to adopt pro-innovation views formerly disdained.[80]

The truth remains that education by itself does not yield much. Cubans nowadays go to school, if strictly limited in what they are permitted to read (a bookstore in Havana has the usual books on technical subjects like engineering; but in history or the social sciences it has nothing beyond the Marxist-Leninist orthodoxy). Yet Cubans cannot start a restaurant or take their farm produce to markets, and so they remain cripplingly poor because they are disabled from exercising bourgeois virtues—in sharp contrast to their cousins in Miami. Cuba's income per head by 2001 was still about what it had been in 1958, while all around it since the Revolution income per head had almost doubled.[81] You will say, "But Cubans as you admit are educated, and well cared for in their hospitals." Yet so they were before 1959, too, by the standards of those days. And yet they fled after 1959 to Miami. The sociologists Victor Nee and Richard Swedberg note that in recent decades China, which had ruined its educational system in the Great Leap Forward, has grown vigorously, while Russia, which led the world in education during the communist period, and which in some ways still does, yet is notably lacking in the toleration for bourgeois innovation that China has developed, did not grow except when oil prices were high.[82] Specialize in ping pong and sending

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80 Gilomee 2003, pp. 210-212, 319, 371, 405-406. Olive Schreiner wrote a novel about Afrikaner farm life in the 1860s. Her character the Afrikaner Tant' [Aunt] Sannie declares, "Didn't the minister tell me when I was confirmed not to read any book except my Bible and hymn-book, that the Devil was in all the rest?" (Schreiner 1883, p. 113). There was some doubt that Tant' Sannie could read much even of these.

81 Maddison 2006, p. 525.

82 Nee and Swedberg 2007, p. 3.

professors to re-education camps, like the Chinese, and prosper. Win chess matches and lead the world in certain fields of mathematics, like the Russians, and stagnate.

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"Capitalist production," Marx declared, "presupposes the pre-existence of considerable masses of capital."[83] No it doesn't. A modest stream of withheld profits will pay for repairing the machines and acquiring new ones, especially the uncomplicated machines of 1760, and now again the complicated but capital-cheap machines of the computer age. In 1760 the most complicated European "machine" in existence was a first-rate ship of the line, itself continuously under repair. Even then Chinese junks were better ships, with such innovations as watertight compartments to prevent sinking, and in their heyday they were gigantically larger than European sailing ships—in the fifteenth century 600 feet in length, as again the pathetic 98 feet of Columbus' Santa Maria. But the "Ming Ban" on ocean-going trade after 1433 effectively stopped the building and use of big ships for the very long-distance trade in which the Europeans a little later came to delight. Had the Emperor and his successors continued the (highly unprofitable) trade beyond southeast Asia and India, and had Europe not come to admire bourgeois life and innovation, by now all of North and South America, and much of Africa, would be speaking Chinese, and wondering why the Europeans had been slow to industrialize. And so far as the origin of capitalist production is concerned, the "masses" of capital could be in 1760

83 Marx 1867, p. 794.

modest in magnitude—again the starter in sourdough bread—and could come from small change anywhere, not only from some great original sin of primitive accumulation.

The conviction that innovation was born in sin, though, has proven hard to shake. It gets its staying power from guilt meeting zero sum. We are rich. Surely we got so by stealing. As the Master himself put it, "primitive accumulation plays in Political Economy about the same part as original sin in theology."[84] Most intellectuals, who do not grasp the productivity of cooperation in markets or especially the productivity of creative destruction, take such illogic as a known fact. The historian Louis Dupré pauses in his recent survey of the French Enlightenment to gesture towards the quite different Enlightenment going on in Scotland at the time. He commends Smith for "a genuine concern for the fate of the workers," but then asserts as though we all know it to be true that "an unrestricted market economy could not but render their lot very harsh, especially during the early period of industrial innovation when accumulation of capital was largely to be earned at their expense."[85] Not surprisingly, Dupré offers no evidence for such an obvious truth. It is part of our intellectual upbringing, not something requiring evidence—that accumulation is the key to growth and that accumulation depends on the sacrifice of workers. Thus Sellar and Yeatman in their spoof of English history, *1066 and All That* (1931), describe "the Industrial Revelation" as the most memorable of the discoveries made around 1800, namely, "the discovery (made by

84 Marx 1867, Chp. xxvi, p. 784.

85 Dupré 2004, p. 178.

all the rich men in England at once) that women and children could work for 25 hours a day in factories without many of them dying or becoming excessively deformed."[86] Most educated people believe such a history is approximately correct, and credit Charles Dickens as an accurate reporter on industrialization. Dickens seldom ventured north of London, knew nothing of industrialization, and spoke instead of poverty of a traditional sort in London itself, which he viewed from a perch in the bourgeoisie. The claim that immiserization is inevitable, a God-given equilibrium short of the Second Coming, arises from Malthus in 1798, reaffirmed by *The Communist Manifesto* in 1848, and comes more deeply from a Christian embarrassment of riches.

But economic historians have shown original accumulation to be mistaken on both counts. Accumulation was not the key, and sacrificing the workers was not how the accumulation that did happen was achieved. Workers in industrial areas of Britain were to be sure wretchedly poor. But so were Dickens' London poor. And so was every ordinary person in the world in those times before the greater day of the bourgeoisie and invention and innovation—all of our ancestors lived on that miserable $3.00. True, children worked. But they always had, and late-nineteenth century industrialization reduced rather than increased their number picking coal or retying broken yarn. Factory work was seen by the children themselves as better than farm work.[87] Wages rose relatively in the industrial areas of England or Scotland or Belgium, despite a rising population overall and the weight of the

86 Sellar and Yeatman 1931, p. 92-93.

87 Honeyman 2007.

Napoleonic struggle. The coal miners and cotton mill workers were notably better off than their country cousins, which is why the industrial workers left the farms in the first place. Innovation, as many have noted since Friedrich Hayek and Max Hartwell and Thomas Ashton spoke out in the 1950s against the Fabian socialist version of British history, was not born in a sin of expropriation.[88]

What did *not* happen in any case, I've noted, was a big rise in European thrift. Nothing much changed from 1348-1700 or from 1700 to 1848 in the actual circumstances of thriftiness. And the modest changes did not matter much. Individual Dutch and English speaking people who initiated the modern world did often practice personal thrift—or often did not; as they still do, or do not. Look at your improvident cousin with a $20,000 of credit-card debt, or on the other side your miserly neighbor. And changes in *aggregate* rates of saving drove nothing of consequence. No unusual Weberian ethic of high thriftiness or Marxian anti-ethic of forceful expropriation started economic growth. East Anglian Puritans learned from their Dutch neighbors and co-religionists how to be thrifty in order to be godly, to work hard in order, as John Winthrop put it, "to entertain each other in brotherly affection."[89] That's lovely, but it's not what caused industrialization—as indeed one can see from the delay of modern (as against early-modern) industrialization even in the Protestant and prosperous parts of the Low Countries, or for that matter in East Anglia.

88 Hayek, ed. 1954; Hartwell 1961; for the pessimistic case, see Hobsbawm 1957.

89 Winthrop quoted in Innes, "Puritanism and Capitalism," 1994, p. 106.

The habits of thriftiness and luxury and profit, and the routines of exploitation, are humanly ordinary, and largely unchanging. A surprising support for such a point comes from a follower of Karl Polanyi: "There are always and everywhere potential surpluses available. What counts is the institutional means for bringing them to life. . . . for calling forth the special effort, setting aside the extra amount, dividing the surplus."[90] As the theologian and social observer Michael Novak puts it, "Weber stressed asceticism and grind; the heart of the system is actually creativity."[91] That's what was new. Modern economic growth depends on applied innovation in crafting gadgets (organizational and intellectual gadgets such as law partnerships and the calculus as much as physical ones), what the philosopher Whitehead called the invention of invention. The invention of invention appears in turn to depend on bourgeois dignity and liberty—at any rate when the ingenious gadgets were first invented, not merely borrowed, as later the USSR and the People's Republic of China were able to do (though sluggishly when under central planning). "We doubt not," wrote a pamphleteer against machine-breaking in 1675, "but innovation will find encouragement in England."[92] And so it did.

There are many tales told about the pre-history of thrift. The central tales are Marxist or Weberian or now growth-theory-ish. They are misled. Accumulation has not been the heart of modern economic growth, or of the change from the

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[90] Pearson, p. 339, quoted in Hirschman 1958 (1988), p. 5n11.

[91] Novak 2007, p. 227.

[92] Earle 1989, p. 337, quoting in turn Wadsworth and Mann 1931, p. 103.

medieval to the early-modern economy, or from the early-modern to the fully modern economy. It has been a necessary medium, but easily supplied, like Shakespeare's alphabet. The substance has been innovation. If you personally wish to grow a little rich, by all means be thrifty, and thereby accumulate for retirement. But a much better bet is to have a good idea and be the first to invest in it. And if you wish your society to be rich you should urge an acceptance of creative destruction and an honoring of wealth obtained honestly by innovation. You should not urge thrift, not much. (Nor should you recommend sheer wealth acquired by stealing, such as the program of making a "middle class" in certain African countries by enriching the state bureaucrats in the main cities at the expense of farmers.[93]) You should work for your society to be free, and thereby open to new ideas, and thereby educable and ingenious. You should try to persuade people to admire properly balanced bourgeois virtues, without worshipping them. Your society will thereby become very, very rich. American society nowadays is notably unthrifty. The fact is much lamented by modern puritans left and right. But because the United States accepts innovation and because it honors Warren Buffett, it will continue to be rich, in frozen pizzas and in artistic creativity and in scope for the average person.

"Thrift" has been much praised in American civic theology. "Work hard, follow the rules," say the American politicians: "Anyone can achieve the American Dream." No, sadly, they cannot. But like many other of the sacred words, such as

[93] Schultz 1964 and Bates 1981.

"democracy" or "equality" or "opportunity" or "progress," the rhetoric of thrift and hard work and following the rules turns out to be more weighty than its material force. Time for the old tale of thriftiness to be retired, and a new history of innovation to replace it.

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