

The Argument of
*Bourgeois Dignity: Why Economics Can't Explain
the Industrial Revolution*

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We need to explain the astonishing enrichment in bourgeois countries from 1800 to the present, such as Norway's move from \$3 a day in 1800 to \$137 in 2006. But the explanation cannot be economic. If it were so—trade, investment, incentives—it would have happened earlier, or in other places. Economics determines how the tide of growth expressed itself down this inlet or beside that quay. Good. But the tide itself had “rhetorical” causes. Prudence is not the only virtue—so are courage and hope, supported by temperance, justice, love, faith, and hope. Through a “Bourgeois Revaluation” redefining such virtues, first in the Netherlands and then in Britain, people started accepting the creative destruction of innovation—and this for the first time.

Habits of the heart did not change (contrary to Max Weber, for example). And the means of production itself cannot have produced such a stunning change endogenously (contrary to modern growth theorists). What changed were habits of the lip. It's not a “rise of the bourgeoisie,” but a rise in other people's opinion of the bourgeoisie that makes for economic growth—as it is now doing in China and India. When people treat the marketeers and inventors as having some dignity and liberty, innovation takes hold. It was so to speak a shift in “constitutional political economy,” as James Buchanan puts the point. People agreed on the meta-rule of letting the economy go where it will. This contrasted with the earlier mentality, still admired on the left, that treats each act of innovation as an occasion to go looking for its victims. Victims there were, but they were greatly outnumbered by winners. It was ideas, not matter, that made the winners, and brought our ancestors from \$3 to over \$100 a day.

It is a materialist prejudice common in scholarship from 1890 to 1980 that economic results must have economic causes. But ideas caused the modern world. The point can be made by looking through each of the materialist explanations, from the

“original accumulation” favored by early Marxist historians to the “new institutionalism” favored by late Samuelsonian economists. They are surprisingly weak. The residual is ideas, in particular the Bourgeois Revaluation of the 17th and 18th centuries in northwest Europe. The argument takes possibly six books, constituting a full-scale defense of capitalism. One is already published (*The Bourgeois Virtues: Ethics for an Age of Commerce* 2006), and the argument here is of volume 2, forthcoming in late 2010. Volume 3, *deo volente*, will explore exactly how the Revaluation occurred, first in Holland and then by imitation in England, Scotland, Pennsylvania, and the world. Volume 4 (perhaps included in Volume 3), will explore the balance of interest (Max U) and language in explaining the Industrial Revolution and its longer-term consequences. If my energy holds up, a volume 5 will explain why the clerisy of elite artists and intellectuals turned against innovation after 1848; and a volume 6 will ask which of the present-day complaints about free-market economies has merit. Since the sestet (“The Bourgeois Era”) is a defense of innovation, one can expect not to find arguments that globalization is bad for the poor, or that innovation has destroyed the environment. Both left and right are suspicious of the modern world, often for the same reasons. “The Bourgeois Era” argues that both are mistaken: that innovation has elevated people, in more than goods alone.

Real national income per head in Britain rose by a factor of about 16 from the 18th century to the present. Other cases, such as that of the U.S. or Korea, have been even more startling, historically speaking. Like the realization in astronomy during the 1920s that most of the “nebulae” detected by telescopes are in fact other galaxies unspeakably far from ours, the Great Fact of economic growth, discovered by historians and economists in the 1950s and elaborated since then, changes everything. And 16, if one follows William Nordhaus’ persuasive arguments about quality improvements in (say) lighting, is a very low lower bound: the true factor is roughly 100. As Maxine Berg has argued, changing quality of products was as important as changes in process. But the gain is not to be measured by pot-of-pleasure “happiness studies.” These are questionable on technical grounds, but especially on the grounds that they do not measure human fulfillment. They ignore the humanities, pretending to scientific precision. It makes more sense to stay with things we economists can actually measure, such as the rise of human scope indicated by the factor of 16 or Nordhaus’ factor of 100, or by what Sen and Nussbaum call “capabilities.” Of course, what we really care about are the scope or capabilities of the poor. These have enormously expanded under “capitalism”—though a better word is simply “innovation,” arising from bourgeois dignity and liberty. It is the Bourgeois Deal: let me alertly seek profit, and I will make *you* rich.”

Britain was first, though the classical (and many of the neoclassical) economists did not recognize that it’s course was beginning the factor of 16. The slow British

growth in the 18th century proposed by Crafts and Harley is unbelievable, but however one assigns growth within the period 1700-1900 it is now plain that something unprecedented was happening. Only non-economists recognized it at the time. The central puzzle is why innovation did not fizzle out, as Mokyr has put it—as it had at other times and places. Productivity in cotton textiles, for example, grew at computer-industry rates, and continued so into the 20th century. But Europe's lead was not permanent. The California School of Pomeranz and Goldstone and Allen and others have shown that China led the West in 1500, and maybe as late as 1750, then fell dramatically behind. It was the *continuation* of European growth in the 19th and 20th centuries that is strange and new. Explaining the Great Divergence requires focusing on non-European events in the 19th century—not some deep-seated European cultural superiority. On the other hand, Europe's fragmented polity *was* an advantage, as shown in the swift uptake of the printing press. The way that non-European places like Japan or Botswana or India have been able to grow demonstrates that the stage theories popular in European thought from the 18th century to the present (for example, in modern growth theory) are mistaken. The metaphors of biological stages or human foot races are inapt, such as the talk in business schools of “competitiveness” nowadays. The “rise” of non-European economies does not presage a “decline” of Europe or its offshoots, merely a borrowing of social and engineering technologies such as Europe once borrowed from elsewhere. The dignity and liberty of ordinary people stands in the middle of such “technologies.”

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: the alphabet was “necessary” in a reduced sense, but was of course 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, where Catholics were one third of the population). Ben Franklin, to cite a leading case, 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 a 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.

Transportation improvements cannot have caused anything close to the factor of 16 in British economic growth. By Harberger's (and Fogel's) Law, an industry that is 10% of national product, improving by 50 percent on the 50% of non-natural routes, results in a mere one-time increase of product of 2.5% ($= .1 \times .5 \times .5$), when the thing to be explained is an increase of 1500%. Nor is transport rescued by "dynamic" effects, which are undermined by (1.) the small size of the static gain to start them off and (2.) the instable economic models necessary to make them nonlinear dynamic.

The same holds for many other suggested causes of the modern world: enclosure, for example, or the division of labor or the Kuznets-Williamson Hypothesis of reallocation from agriculture to industry, country to town. Wider geographical arguments, such as Diamond's or Sachs', turn out to be ill-timed to explain what we wish to explain. And "resources," such as oil or gold, have both the Harberger Problem and the timing problem. Not even coal—the favorite of Wrigley, Pomeranz, Allen, and Harris—can survive the criticism that it was transportable and substitutable. The factor-bias arguments of Allen have the old problem of the Habbakuk Hypothesis, namely, that all factors are scarce. Even if we add up all the static and quasi-dynamic effects of resources, they do not explain Britain's lead, or Japan's or Hong Kong's catching up.

Trade reshuffles. No wonder, then, that it doesn't work as an engine of growth—not for explaining the scale of growth that overcame the West and then the Rest 1800 to the present. Yet many historians, such as Walt Rostow or Robert Allen or Joseph Inikori, have put foreign trade at the center of their accounts. Yet the Rest had been vigorously trading in the Indian Ocean long before the Europeans got there—indeed, that's why the West wanted to get there. Trade certainly set the prices that British industrialists faced, such as the price of wheat or the interest rate. But new trade does not put people to work, unless they start unemployed. If they are, then *any* source of demand, such as the demand for domestic service, would be as important as the India trade. Foreign trade is not a net gain, but a way of producing importables at the sacrifice of exportables. The Harberger point implies that static gains from trade are small when set beside the 1500% of growth to be explained, or even the 100% in the first century in Britain. Trade is anyway too old and too widespread to explain a uniquely European—even British—event.

One can appeal to "dynamic" effects, but these too can be shown to be small, even in the case of the gigantic British cotton textile industry. And if small causes lead to large consequences, the model is instable, and any old thing can cause it to tip. Ronald Findlay and Kevin O'Rourke favor foreign trade on the argument that power

led to plenty. But domination is not the same thing as innovation. In short, the production possibility curve did not move out just a little, as could be explained by trade or investment or reshuffling. It exploded, and requires an economics of discovery, not an economics of routine exchanges of cotton textiles for tea.

Since trade was not an engine, neither was a part of trade, such as the trade in slaves. The profits from the trade, which were small and were mainly earned by African slave-catchers, did not finance the Industrial Revolution. Imperialism, too, was a mere part of trade, and despite the well-deserved guilt that Europeans feel in having perpetrated it, it was not an engine of their growth. Stealing from poor people is not a good business plan. Certainly the possession of India did little for the great British public. It taxed them for the Navy. But that Europeans did not benefit from imperialism does not mean that imperialism was good for the imperialized. That a thief kills his victim does not add to the thief's monetary profit, and some imperialism was certainly killing. The cases of simple theft, such as the Belgian Congo, did nothing to enrich the average Belgian. Nor have internal imperialisms, such as apartheid, been profitable. The episode of economic success in Europe came from domestic sources of innovation, not from exploitation.

"Commercialization" and "monetization" dance with stage theories from Smith to modern growth theory. The sheer growth of trade or the sheer growth of money, though, do not an Industrial Revolution make. The ill-named "Price Revolution," for example, came from American gold, not from population increases, and did not inspire innovation. Commercialization comes from falling transaction costs, which should be directly studied. Fernand Braudel, however, argued for commercialization as a force transforming "capitalism." He distinguished "capitalism" from local trade, which no economist would, and assigned blame to the capitalists. Though hardly a Marxist, he—like a brilliant group of leftist economists such as Marglin and Lazonick—puts emphasis on the struggle over the spoils. But it was not such struggles that made the modern world. It was the positive sum arising from innovation.

An extreme materialist hypothesis explaining the Industrial Revolution would be simply genetic. Gregory Clark asserts such a theory of sociobiological inheritance in his *Farewell to Alms* (2007). Rich people proliferated in England, Clark argues, and by a social Darwinian struggle the poor and incompetent died out, leaving a master race of Englishmen with the bourgeois values to conquer the world. Clark will have no truck with ideas as causes, adopting a materialist (and, as he believes is implied by materialism, a quantitative) theory of truth. His method, that is, follows Marx in historical materialism, as many scholars did 1890 to 1980. But he does not carry out his promise to show his argument quantitatively.

The argument fails, on many grounds. For one thing, non-English people succeeded, as for instance the Chinese now are succeeding. And such people have

always done fine in a bourgeois country. For another, Clark does not show that his inheritance mechanism has the quantitative oomph to change people generally into bourgeois, nor does he show that bourgeois habits of working hard mattered, or that bourgeois values caused innovation. What made for success in 1500 is not obviously the same as what made for innovation in 1800. And in the modern world of literacy such values are not transmitted down families, but across families. Literal inheritance anyway dissipates in reversion to the mean. What mattered in modern economic growth was not a doubtfully measured change in the inherited abilities of English people. What mattered was a radical change 1600-1776, “measurable” in every play and pamphlet, in what English people wanted, paid for, revalued.

Douglas North, with many other Samuelsonian economists, thinks of “institutions” as budget constraints in a maximization problem. But as Clifford Geertz and his colleagues put it, an institution such as a toll for safe passage is “rather more than a mere payment,” that is, a mere monetary constraint. “It was part of a whole complex of moral rituals, customs with the force of law and the weight of sanctity.” The Geertzian metaphor of negotiation and ritual makes more sense than the metaphor of a mere budget constraint. Meaning matters. North in particular thinks that the budget line of anti-property violence was shifted in the late 17th century. It was not: on the contrary, England was a land of property rights from the beginning. So “institutional change” does not explain the Industrial Revolution. The timing is wrong.

Incentive (Prudence Only) is not the main story, and cannot be the main story without contradiction: if it was Prudence Only the Industrial Revolution would have happened earlier, or elsewhere. Other virtues and vices mattered—not only prudence, beloved of the Samuelsonians; but temperance, courage, justice, faith, hope, and love, which changed radically in their disposition in the seventeenth and eighteenth centuries. Sheer commercial expansion is routine and predictable and ill-suited therefore to explaining the greatest surprise in economic history.

The Glorious Revolution of 1689, which North and Weingast have cast in a central role, merely made the British state effective. It did not change property rights (as economists such as Darin Acemoglu have supposed, on the basis of North’s tale). North praises patents and incorporation laws, neither of which had much impact in the Industrial Revolution. The 18th century, in other words, was *not* a century of “institutional change.” Nor is the entire absence of property relevant to the place or period. Richard Pipes argued it was relevant, on the basis of the Russian case. Yet only in society’s dominated by Steppe nomads was property weak. In Europe in the 16th and 17th centuries, as in China then, it had been strong for centuries past. The Stuarts were not princes of Muscovy. And indeed private property characterizes all settled human societies.

What happened to make for the factor of 16 were new ideas, what Mokyr calls “industrial Enlightenment.” But the Scientific Revolution did not suffice. Non-Europeans like the Chinese outstripped the West in science until quite late. Britain did not lead in science—yet clearly did in technology. Indeed, applied technology depended on science only a little even in 1900.

Why did the North-Sea folk suddenly get so rich, then, get so much cargo? The answers seems not to be that supply was brought into equilibrium with demand—on the contrary, the curves were moving out at breakneck pace. Reallocation is not the key. Language is, with its inherent creativity. The Bourgeois Revaluation of the 17th and 18th centuries brought on the modern world. It was the Greatest Externality, and the substance of a real liberalism. Left and right have long detested it, expressing their detestation nowadays in environmentalism. They can stop the modern world, and in some places have. The old Soviet Union was admired even by many Western economists—which admiration is an instance of a “cultural contradiction of capitalism,” in which ideas permitted by the successes of innovation rise up to kill the innovation. We should resist it.

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