

Exordium

to Deirdre Nansen McCloskey, *Bourgeois Equality: How Betterment Became Ethical, 1600-1848, and Then Suspect* (forthcoming 2015)

Why are we so rich? Who “we”? Have our riches corrupted us?

The series of three long books here completed, God be praised, The Bourgeois Era, answers

- (1.) in the first volume, *The Bourgeois Virtues*, that contrary to the clerisy’s conviction after 1848 the bourgeoisie – the middle class of traders, inventors and managers – is on the whole virtuous;
- (2.) in the second, *Bourgeois Dignity*, that the modern world was made not by the usual material causes, such as coal or thrift or exports or imperialism or property rights, but by technical and institutional ideas among a newly dignified bourgeoisie;
- (3.) and here in the third volume, *Bourgeois Equality*, that the novel virtues and the bettering ideas of the bourgeoisie arose from liberty and dignity for commoners, which in turn arose not from a deep European superiority but from certain accidents of the egalitarian strain in its politics 1517-1789. The bourgeoisie will continue to enrich the poorest among us, everywhere.

The upshot since 1800 has been a gigantic improvement of the poorest of the working class, and a promise of the same worldwide – the Great Enrichment.

These are not uncontroversial claims. But I ask you to rethink with me our economics and our economic history. And I ask you to suspend pigeon-holing the trilogy by politics, the better to tune out and go get a pizza. I ask you instead to listen, really listen. Whatever your politics or your convictions about economic history – and, believe me, you *do* have such convictions – I think listening will improve your own arguments. I ask you to try to follow, as I try so imperfectly try to follow, the noble motto articulated by the anthropologist/ philosopher Amelie Oksenberg Rorty. What is crucial, she wrote, is

our ability to engage in continuous conversation, testing one another, discovering our hidden presuppositions, changing our minds because we have listened to the voices of our fellows. Lunatics also change their minds, but their minds change with the tides of the moon and not because they have listened, really listened, to their friends’ questions and objections.¹

About our economic past and future, let us join the continuous conversation.

The three books chronicle, explain, and defend what made us so rich, the system usually called modern “capitalism.” But the system we have had since 1800 should rather be called “market-tested technological and institutional betterment at the frenetic

1 Rorty 1983, p. 562.

pace of the past two centuries.” Or “astonishing progress, especially since 1848, with ample if uneven provision tested by voluntary exchange.” Many humans now are stunningly better off than their ancestors were in 1800. The rest will soon be stunningly better off than they are now.

Better ideas, not capital accumulation, did the trick. The betterment was caused by a new liberty and dignity expressed as equality, and then by the frenetic innovation that ensued. It was not caused not by “capitalism,” which is any reasonable definition is ancient and ubiquitous. The enriched world cannot anyway be explained by the accumulation of capital – as to the contrary economists have argued from Adam Smith through Karl Marx to Thomas Piketty, and as the very name “capitalism” implies. The road to riches was built not by piling brick upon brick, bachelor’s degree on bachelor’s degree, bank balance on bank balance, but by piling idea upon idea. The bricks, BAs, and bank balances were of course necessary. Oxygen is necessary for a fire. But it would be at least unhelpful to explain the Chicago Fire of 1871 by the presence of oxygen in the earth’s atmosphere rather than by the city’s many wooden buildings, a strong wind from the southwest, a long dry spell, and Mrs. O’Leary’s cow.

The modern world cannot be explained, that is, by routine sources of brick-piling, such as the Atlantic trade or banking or the savings rate or the slave trade or the exploitation of the workers or the original accumulation of capital, whether of physical or of human capital. Such routines are too widespread in history and too feeble in oomph to explain the ten- or thirty- or one hundred-fold enrichment unique to the past two centuries. The Great Enrichment, 1800 to the present – the most surprising secular event in history – is explained instead by bettering ideas. The ideas were at first massively borrowed from China and other economies to the east and south of northwestern Europe. But from the seventeenth century onwards, and especially after 1800, they were shockingly extended, in Holland and Britain and Belgium and the United States. The Great Enrichment is not to be explained by the material interests of race, class, gender, power, culture, religion, genetics, institutions, or nationality. On the contrary, the entirely fresh ideas of democracy and of engineering led to voting rights and gasoline automobiles, primary schooling and central heating.

The root cause, I repeat, was not capital accumulation. The fraught C-word “Capitalism,” therefore, does not make many appearances here. The dishonored B-word, “Bourgeois,” on the other hand, appears all over the place, in the titles for example of all three volumes. The purpose is to revalue the good people of the middle class – the entrepreneur and the merchant, the inventor of carbon-fiber materials and contractor remodeling your bathroom, the improver of automobiles in Toyota City and the supplier of spices in New Delhi. The technical and institutional ideas that the bourgeoisie imagined and built and sold arose in the eighteenth century out of a new liberty and a new dignity for ordinary people, and among these the middling sort of the towns. The ideas paid off big in the nineteenth century. In the historical lottery the idea of an equalizing liberty and dignity was the winning ticket. The bourgeoisie held it.

I offer talk-therapy for widespread neuroses since 1848 among about markets and betterment and the middle class. If you are on the left politically speaking, I gently

suggest that you quit feeling guilty about being bourgeois. Quit thinking of non-profit jobs as more noble than jobs in which you make things people want to buy. Quit looking down as a priest or a professor on people who work to supply what we are willing to pay for. Quit thinking of betterment as a corrupting activity called “consumerism” or “affluenza.” If you are on the right politically speaking, I suggest that you quit thinking of rich people as ethically superior to poor people. Quit suppressing voting in favor of the country club. Quit looking to the government for tax breaks and monopolies. Quit thinking that economics says that greed is good. On all these counts, resolve to become a real egalitarian, a real enthusiast for human liberty and dignity, and go in peace.

The left- and right-wing neuroses infected artists, journalists, professionals, bureaucrats, and intellectuals, the “clerisy” as it was called in 1818 by Coleridge. The Germans called it the *Clerisei* or later the *Bildungsbürgertum*, the cultivated and reading as against the commercial and bettering middle class. In the eighteenth century the clerisy had courageously advocated our liberties, as did Voltaire and Tom Paine. But in the 1830s and 1840s a greatly enlarged clerisy commenced sneering at the same liberties when exercised in market and in factory. The clerisy of the left was certainly justified in some of its sneering at the bourgeois folk, considering their foolish pride of wealth and their malevolent pursuit of monopoly privilege from the state, such as James Watt’s patent on steam engines or the Wright brothers patents on airplanes or America’s corporate welfare. The clerisy of the right, meanwhile, seized on social Darwinism and eugenics to attack the liberty and dignity of ordinary people, and to elevate the Nation’s Mission above the individual.

Yet the much-despised bourgeoisie made the Great Enrichment. It gigantically improved our lives, showing both Marxism and social Darwinism to be gravely mistaken. The proletariat was emphatically not immiserized and the genetically inferior classes showed up as successful bourgeois. True, the bourgeoisie often exhibited a philistine lack of appreciation for the loveliest works of the clerisy, Balzac’s *Le Père Goriot* of 1835 or Picasso’s *Jeune fille endormie* of 1935. Yet from a Bettering-But-Despised Bourgeoisie the scribblers left and right got ball-point pens and word processors, newspapers and educations.

New ideas from the bourgeoisie – and more fundamentally new ideas *about* the bourgeoisie – did it. The trilogy defends such an “ideational” hypothesis against a materialism long dominant. The first volume, *The Bourgeois Virtues: Ethics for an Age of Commerce* (2006), asks, Can a life in business be ethical? Can it be governed by virtues that include of course a businesslike prudence but are not confined to it? In executive summary: Yes. Prudence is the virtue of profit, planning, know-how, *savoir faire*, common sense, efficiency. It’s good to have. We teach it to our dogs and children. “Look both ways when crossing the street.” “Study the balance sheet.” “Save for old age.” But the ideas of ethics in business go well beyond the virtue of prudence. And they should. Actual businesspeople, being people, exhibit on their best days also love and justice and courage, hope and faith and temperance. The bourgeois folk are not all of them the prudence-obsessed characters in a Dilbert comic strip.

The Bourgeois Virtues repudiates, in other words, the economist's obsession with Prudence Only, isolated from the other virtues. A virtue narrowed becomes a vice. Since the 1930s some economists have undertaken to narrow down our lives to what they are pleased to call Rationality. (Other and more sensible economists, such as Ronald Coase, Armen Alchian, and Vernon Smith, posited merely a mild tendency to enter at the smell of benefit.) But full rationality among humans, as noted recently by social psychologists such as Jonathan Haidt, and by the rest of us since the Epic of Gilgamesh, is not Prudence Only.² Even a few economists are beginning to grasp a "humanomics" that invites full humans to enter – with a scientific payoff the trilogy here undertakes to exemplify.

And the first volume repudiates, too, the *anti*-economist's obsession with the vice of Prudence Only isolated from the other virtues, the vice we call Greed. Greed is not good. But neither does greed especially characterize the bettering world of the modern bourgeoisie, whether in small business or in corporate giant. Greed is human and is ancient – greed for gold, glory, sex, power, position. When Karsten Bernick in Ibsen's first bourgeois drama, *Pillars of Society* (1872), comes to his ethical senses in Act 4, he declares, "Even if I haven't always gone after profit [so much for the simplest version of greed in the economist's theory], nonetheless I'm aware now that a hunger and craving after power, status, and influence has been the driving force behind most of my actions."³ Yes, all that, and sex, too, since the caves, if in the absence of balancing justice and love and temperance. Greed.

Admittedly, market-tested betterment since 1800 came in part from prudence and profit. The success of the prudential experiment did indeed raise the prestige of the executive virtue. But the betterment came also from hope, justice, courage, and temperance, which raised the prestige of the commercial versions of these virtues, too. By early 2014, out of a sense of commercial justice and not merely out of prudential calculation, corporations such as Merck, UPS, Walt Disney, and Lockheed-Martin stopped giving money to the homophobic Boy Scouts of America. Shell Oil and Campbell Soup allow in their health-care plans for gender-reassignment surgery. Many others of the *Fortune* 500 have not been slow to give women opportunities. That is, a businessperson in the modern world, contrary to the materialist views of Marxist and Samuelsonian economists, is not ordinarily a Mr. Max U, a sociopathic manipulator of the vending machines called "other people."⁴ The businessperson walks with others, talks with them, entangled for good or ill in their stories and their metaphors. What news on the Rialto?

2 Cite Haidt and Vernon Smith and Bart Wilson

3 Ibsen 1877 (1965), p. 112.

4 "Samuelsonian" describes modern economists of the so-called "mainstream" – modeling exclusively with constrained maximization, Max U. It is a term of affection, not dismissal, and is historically more accurate than, say, "neo-classical." (which would include Austrian economists who do not think much of Max-U modeling). Samuelsonian economics was invented in the 1940s and 1950s by the brilliant and amiable Paul Anthony Samuelson (1915-2009), long my mother's tennis partner, with his equally brilliant and equally amiable brother in law, Kenneth Arrow (1921-), long a friendly colleague of mine. They are joint uncles of the crown prince of Samuelsonian economics, Lawrence Summers.

The second volume, *Bourgeois Dignity: Why Economics Can't Explain the Modern World* (2010), examines in detail the capital-accumulation or exploitation or other materialist stories of the British Industrial Revolution, and shows their quantitative lack of oomph in explaining the Revolution and especially the Great Enrichment that followed. It demonstrates by the method of residues that bettering ideas, not mainly material interests, drove the modern world.

Yet such idea-rich revolutions, it must be admitted, have been common in history, as in fifth-century Athens, or twelfth-century Song China, or fifteenth-century Italy. The exception this one last time was the follow-on in the nineteenth century, the explosive Great Enrichment of ordinary people, by ordinary people, for ordinary people. Why? The causes were not, to mention some of the usual suggestions, coal, thrift, science, transport, high wages, surplus value, human capital, geography, institutions, infrastructure, the quickening of commerce, the original accumulation of capital, eugenic materialism, or property rights. Such purported causes had been routine in a dozen organized societies from ancient Egypt and China down to Tokugawa Japan and the Ottoman Empire. Routine cannot account for the strangest secular event in human history, beginning as bourgeois dignity in Holland after 1600, gathering up its tools for betterment in England after 1700, bursting on northwestern Europe after 1800, and then enriching much of the world.

Most societies, for example, enforce property rights. Cities in Mesopotamian two millennia before the common era did so in detail, as did ancient Israel, the Viking lands, T'ang China. Before the big states, for that matter, the hunter-gatherers or the animal-herders also had to enforce the institution of property, when it mattered, or else they ended in a war of all against all, and the life of man became solitary, poor, nasty, brutish, and short.⁵

What then was the special ingredient that made routine enforcement of property rights or routine building of canals or routine access to the sea or routine mining of coal so very non-routinely fruitful in the Great Enrichment? In a word, ethics. An institution – or a canal or a ship or a coal mine – works well not chiefly because of the official rules of the game beloved of economists as “incentives” but because of the good ethics of its participants, intrinsic motivations powerfully reinforced by the ethical opinion people have of each other – the Blessed Adam Smith’s “impartial spectator.” A society can craft an official rule against cheating in business. Good show. But if the rule is enforced with a nudge and a wink among people who ignore simple honesty or who sneer at the language of ethics, as in a corrupt Chicago during the 1890s or in a corrupt Shanghai during the 2010s, it won’t work as well as it could. In the extreme it will be a wholly dead letter, such as the Soviet Constitution.

The crux is not such black-letter constitutions but how the constitutions come about in ethics.⁶ When a society or its elite wants them to work, they do. The working of the U.S. constitution rests on so wanting. Ethics underpins law, constitutions, institutions, a point which political theorists from Machiavelli and Hobbes through

5 Barendt and Barendt 1964, pp. 302-305. Cite property right lit/

6 The point comes from Bart Wilson.

James Buchanan and Martha Nussbaum have overlooked.⁷ Al Gore conceded defeat in January 2001 after the conservative Supreme Court spoke. Al's graceful wanting for the good for the country came out of his ethics. But so does the working of any institution. Rules and incentives can be corrupted at any level from board room to shop floor. For serious results the people of an institution, such as a hotel or a university, need to be seriously ethical from top to bottom. Not saints, Lord knows, but attentive sufficiently to the Impartial Spectator.

We're back to the first volume and the bourgeois virtues. The modern world was made by a revolution in ethical judgments about commercial virtues and vices, in particular by an up-valuation of market-tested betterment. The up-valuation was articulated first by the clerisy, which before 1848 was on its good behavior, admiring economic liberty and bourgeois dignity, and willing to pledge its life, fortune, and sacred honor in aid of the project. After 1848 in places like the United States and France and Japan the bulk of ordinary people came slowly to agree. By then, however, much of the clerisy worldwide had turned decisively against the bourgeoisie, on the sad road to twentieth-century communism and fascism. In the luckier countries, though, the bourgeoisie for the first time was judged by many to be mainly honest, and even *was* mainly honest. By 1900, and more by 2000, the Bourgeois Revaluation had made many of us very rich, and pretty good.

One could argue, as the economic historian Joel Mokyr does, that what mattered for betterment was the change in outlook among a technical elite of doctors, chemists, technicians, instrument makers. Surely so, as the proximate cause. One could hardly have new machines for making, say, screws in great numbers without some man like Henry Maudslay (1771-1831) already educated in making machines. But where did such an elite come from, with its education and ardor and expense? In Holland and Britain and the United States it came from ordinary people – that being the only way to achieve a sufficient mass of technically literate folk, oriented not towards the production of rare luxuries or military victories but the production of ordinary goods for ordinary people. The problem in, say, France was that the engineers came from the younger sons of its large nobility, such as Napoleon, educated for military careers.⁸ In Britain by contrast a promising *working*-class lad would become a bourgeois master of new machines and new institutions. The bourgeois career, like Napoleon's army or Nelson's navy, was open to talent. Maudslay, two year younger than Napoleon and thirteen younger than Nelson, began work at twelve years old filling cartridges at the Royal Arsenal, becoming then a blacksmith, and by age eighteen a locksmith, and more. Mokyr is taking as given a structure that in fact had a vibrant modern history, driven by the new and bizarre ethic of human equality of liberty and dignity, in law and in esteem. The new equality let the ordinary, and the extraordinary, have a go.⁹ The having-a-go then produced in the Great Enrichment of the nineteenth century a

7 Cite Nussbaum paper.

8 Jacob 2014, pp. .

9 The "having a go" is a British idiom, used in this application by the economic historian Peter Mathias.

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veritable idea-explosion – an explosion of ideas for example about nitroglycerine, dynamite, gelignite, TNT, and C-4.

One could argue, again, as the French economist Thomas Piketty does, that growth depends on capital accumulation, **use Piketty's formula** – not on a new ideology and the bettering ideas that the new ideology encouraged, and certainly not on an ethics supporting the ideology. Piketty, like many Marxists and some conservatives, is annoyed precisely by the *ethical* pretension of the modern CEOs. The bosses, he writes, justify their economic success by placing "primary emphasis on their personal merit and moral qualities, which they described [in surveys] using term such as rigor, patience, work, effort, and so on (but also tolerance, kindness, etc.)."¹⁰ As the economist Donald Boudreaux puts it, "Piketty prefers what he takes to be the more honest justifications for super-wealth offered by the elites of the novels of [the conservatives] Austen and Balzac, namely, that such wealth is required to live a comfortable lifestyle, period. No self-praise and psychologically comforting rationalizations by those early-nineteenth century squires and their ladies!" Piketty sneers from a conservative-progressive height: "The heroes and heroines in the novels of Austen and Balzac would never have seen the need to compare their personal qualities to those of their servants." To which Boudreaux replies, "Yes, well, bourgeois virtues were not in the early nineteenth century as widely celebrated and admired as they later came to be celebrated and admired. We should be pleased that today's high-salaried workers brag about their bourgeois habits and virtues, and that such [exceedingly high-paid] workers – finally! – understand that having such virtues and acting on them is dignified."¹¹ The theory of great wealth by the proletariat is Non-Desert by Luck or Theft, by the aristocracy Desert by Inheritance (itself justified by *ancient* Luck or Theft). The theory of great wealth by the bourgeoisie is Desert by Virtue – perhaps exaggerated, and only sometimes justified. But for the rest of us it has not been so bad after all.

The original and sustaining causes of the modern world, in other words, were ethical, not material. They were the widening adoption of two mere ideas, the new economic idea of liberty for ordinary people and the new social idea of dignity for them. The two linked and preposterous ethical ideas – the unified concept for them is "equality" of respect and before the law – led to a paroxysm of betterment. The word "equality" is to be understood here, of course, not in the style of some in the French Enlightenment as equality of material outcome, nice as it would be if it came about in a free society (and as, by the standard of basic comforts in antibiotics and housing, it largely in fact has). It is to be understood rather in the style of the Scottish Enlightenment, as the egalitarian opinion people have of each other, whether street porters or economic philosophers.¹² Adam Smith, a pioneering egalitarian, described it as "allowing every man to pursue his own interest his own way, upon the liberal plan of equality, liberty and justice."¹³ Forcing the illiberal French style of equality of

10 Piketty 2014, p. 418

11 Boudreaux 2014, personal correspondence.

12 Cite Sandy and David

13 Smith 1776, Bk. IV, Chp. ix, p. 664.

outcome, cutting down the tall poppies, we have found, has often enough had a cost in abridged liberty and slowed betterment. Not always, but often. And introducing the Scottish style of equality of liberty and dignity has regularly led to an astounding betterment and to a real equality of condition, with even the poor acquiring plumbing and automobiles denied in earlier times to the rich.

The ideas of equality led to other social movements not uniformly adorable. As Hannah Arendt remarked in 1951, “equality of condition . . . is . . . among the greatest and most uncertain ventures of modern mankind.”¹⁴ Alexis de Tocqueville had said much the same a century before. But for better or for worse the double ideas of liberty and dignity, summarized as Scottish “equality,” mattered as causes of the Great Enrichment more than any fresh material incentives real or fancied – more than wars or trade or empire or financial markets or high wages or high science. The Bourgeois Revaluation combined with a Bourgeois Deal – let me creatively destroy the old and bad ways of doing things, the ox carts and the scythes and the factories without robots, and I will make *you* rich. The Bourgeois Deal became, unevenly, the ruling ideology, by contrast with ideologies such as ancient tyranny or medieval aristocracy or early-modern mercantilism or modern populism. The bettering society was not ruled by the great king or the inheritors or the bureaucrats or the mob, all of whom took their profits from zero sum. It was ruled by the betterers, taking their profits from positive sum, from water-power saw mills and hand-puddled iron. A bettering bourgeoisie then invented the telephone and the internet, the steam ship and the widespread secondary school, and enriched us all.

The second book, in other words, disputes as the first does the Prudence-Only obsessions of the economists and of their enemies. Within economics it disputes the factually dubious assertion from the political right that technological betterment comes automatically from property rights.¹⁵ And it disputes the illogical assertion from the political left that the betterment comes automatically from high wages.¹⁶ There was little that was automatic, material, or predictable about the releasing of human creativity from ancient trammels. All praise, then, to a surprising betterment tested in the market by voluntary exchange, a betterment inspired by economic and social ideas.

(The Australian historian of economic thought Elena Douglas persuaded me to question, in describing the release of creativity, the fashionable word “innovation.” Her point is that “improvement” or “betterment,” the words I eventually settled on, focus more sharply on the actual help to ordinary humans of new ideas, as against their sheer novelty. Novelty is easy. Let us have unprofitable wind mills for generating electricity. Actual help is not. Let us have improved computers for air traffic control. The economic historian Mokyr, again, who is among the handful of my colleagues in economic history favoring the ideational approach, such as the historian Margaret Jacob and the sociologist Jack Goldstone (with some groundbreaking non-academics such as

14 Arendt 1951 (1985), p. 54. It is unclear in the passage whether Arendt means “equality in opinion,” as I do, or “equality of outcome,” as conventional socialists do.

15 Cite North and Acemoglu and Robinson.

16 Cite Allen

Jane Jacobs, Michael Novak, George Gilder, and Matt Ridley), imparts a similar accent in speaking of the turn to *usefulness* in what he calls the Industrial Enlightenment. But Mokyr would agree that “usefulness,” too, needs a market test, and that sheer innovation without the test is worse than useless – backyard blast furnaces, say.¹⁷⁾

This final volume, *Bourgeois Equality*, asks why such ideas about bourgeois betterment shifted so dramatically in northwestern Europe, and for a while only there. “Betterment” and “improvement” and especially “innovation” were long seen in Europe as unsettling heresies, such as Galileo arguing in readable Italian rather than in learned Latin that the earth circles the sun. But gradually in northwestern Europe, and later elsewhere, a betterment tested in the market came to be seen as commercial heroism, as for example Henry Ford’s assembly line or Steve Jobs’ iPad. Why did Leonardo da Vinci conceal his (not altogether original) engineering dreams in secret writing, yet James Watt of steam-engine fame (and famous too, I have noted, for his fiercely defended anti-betterment patents) was to have a statue set up after his death in Westminster Abbey?¹⁸ Why did bourgeois Shakespeare in 1610 sneer loftily at the bourgeoisie, yet gentrified Jane Austen in 1810 smiled amiably at it?

The answer to Why England or Why Europe, I argue here, does not lie in some thousand-year-old superiority, such as English common law, or in the deep ancestry of Europeans. It lies rather in the surprising, black-swan accidents of northwestern Europe’s reaction to the worldwide climatic crisis of the Early Modern – the Europe-specific accidents of successful Reading, Reformation, Revolt, and Revolution: “the Four Rs,” if you please, carried by Gutenberg, Luther, Willem van Oranje, and Oliver Cromwell, and by happy accident deposited in a pile in Britain in the early eighteenth century. None of the Rs had deep European roots.¹⁹ None could have been anticipated. In 1400 or even in 1600 a sober observer would have expected an industrial revolution and a great enrichment – if she could have imagined such amazing events – in technologically advanced China, not in backward Europe.

(The Renaissance, greatly to be admired for other reasons, was not one of the democratically and economically relevant Rs. It yielded innovations all right, but the test it applied for valuing them was aristocratic, not bourgeois. Splendid though its innovations were – perspective drawing, human dissection, Palladian architecture, and the printing of intelligently edited Greek classics, among my favorites – they were not “betterments,” and did not directly improve the lives of ordinary people, at any rate not for a very long time. They had little to do with the Industrial Revolution or its astonishing follow-on, the Great Enrichment. Indeed, the glorifying of the Renaissance, and the popularization of the very word, came in the nineteenth century from the greatest enemies of the Enrichment. The one route by which the Renaissance could have helped make the modern world is the individual dignity beyond social standing expressed for example in painting after Giotto. We can admit it, yet deny such an

17 cite Joel. His last name, which will come up frequently, is pronounced “moh-KEER.”

18 cite

19 “Black Swan” refers to Nassim Nicholas Taleb’s notion of an unpredictable event (Taleb DDDD).

aristocratic and clerical turn as a main road to riches. And the art was a sign of theological and social changes quite independent of its expression.

The consequence of the Four Rs was a fifth R, a Revaluation of the bourgeoisie, first in Holland and then in Britain, coming from the new, R-caused, egalitarian appraisal of ordinary people. (Such egalitarianism was not, you see, the central teaching of a Renaissance that praised the Ideal, such as Michelangelo's Vetruvian Man, and disdained the Ordinary, such as Garrison Keillor's Norwegian Bachelor Farmer). I retail here the evidence that hierarchy – as for instance in St. Paul's and Martin Luther's belief that the authorities that exist have been instituted by God – began slowly to break down. The cause of the bourgeois betterments, that is, was an economic liberation and a sociological dignifying of, say, a wig-maker of Bolton, son of a tailor, messing about with spinning machines, who died in 1792 as Sir William Arkwright possessed of one of the largest bourgeois fortunes in England. The Industrial Revolution and especially the Great Enrichment came from liberating the commoners from compelled service to an hereditary elite, such as the noble lord, or compelled obedience to a state functionary, such as the economic planner. And it came from according honor to the formerly despised of Bolton – or of Ōsaka, or of Lake-Wobegon – the commoners exercising their liberty to relocate a factory or invent airbrakes.

Long ago the economic liberation and social honoring, together, did the trick, in Holland and England, then in Austria and Japan. Now they are doing the trick with astonishing force in China and India. And soon the rest.

Here a flow diagram, with major links to Ideology, Equality of Respect, Ethic. Investment and education are endogenous.

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A note on method. This volume, as do the other two, attempts a quantitative-scientific study, measuring the strength of the links in the diagram. Here in *Bourgeois Equality*, and in *Bourgeois Dignity*, and only less so in *The Bourgeois Virtues*, the question asked is How Big. It is the central question in most physical sciences and many of the social sciences. How big is the acceleration due to gravity at sea level? How big is human DNA? How big is the incidence of the corporate income tax upon shareholders? I ask here persistently How Big. How big were the material forces influencing the Industrial Revolution? How big was the Great Enrichment? How big are its prospects of continuation?

Admittedly, none of the three books is studded with the mathematics of existence theorems or the statistics of significance tests, held together by an amateur philosophy of "falsifying observable implications," which constitute the allegedly quantitative Method cobbled together in the 1950s that most of my fellow economists believe to be the very definition of Scientific.²⁰ I have surveyed in a half-dozen books

20 The Method was, again, a result of Samuelson and Arrow – without whom, not – and justifies the adjective "Samuelsonian." Samuelson's first PhD student at MIT was Lawrence Klein, who brought tests of statistical significance to prominence in econometrics.

from 1984 to 2008 the frailties of the received economic Method, frailties that, strangely, have disabled academic economists from actually answering How Big.

Yet it is also mistaken to suppose that the central question in the humanities – What *Kind* is this or that? – is *unscientific*. The what-kind question occurs prominently in biology, for example, and is central to art history and mathematics and systematic theology. The boyish disdain that most economists have for humanistic thought is without scientific or philosophical justification. The systematic, scientific humanities are explorations of kinds. The physical and much of the social sciences are then explorations of the bigness of the kinds. Obviously before you can count you have to know what we humans wish to count (note the word) as a red giant star or a citizen of Zurich. A scientific and humanistic step of human meaning, which establishes what kind we count, precedes every scientific job of counting. And so here.

The word “science” is used in the English sense before the mid-nineteenth century, which is the sense in languages everywhere except recent English, from German to Japanese, from *Wissenschaft* to *kagaku* – namely, “systematic inquiry, as against lazy and unsupported opinion.” An Italian mother bragging about her twelve-year old daughter who is doing well in school will call her *mia scienzata*. She does not mean in the modern English sense “my little female scientist” but “my little female excellently systematic student.” In German *Geisteswissenschaften* – in literal translation a spooky sounding “spirit sciences” – is the normal word for what American English speakers call “humanities” and British English speakers call “arts,” but anyway not the modern English definition of “science.”

The modern and uniquely English definition, listed in the *Oxford English Dictionary* as sense 5b, is in “modern use often treated as synonymous with ‘Natural and Physical Science’.” The first quotation for sense 5b is 1867. The lexicographers note further that it “is now the dominant sense in ordinary use.” That’s the problem. The new definition entails a radical narrowing of “scientific” evidence, with a consequent obsession with “demarcating” science from other systematic forms of human persuasion. The French by contrast speak of *les sciences humaines*, in which they include philosophy. Likewise all the other languages use their science-word as once the English speakers themselves did, and as for example the sociologist and economist Harriet Martineau did in 1838 when speaking of the “science of morals”²¹ – as the *OED*’s older sense 3a, “A particular branch of knowledge or study; a recognized department of learning,” which includes the study of the three forms of indirect speech in Attic Greek as much as the calculation of the weight of electrons.

The “Natural and Physical Science” that the English speaker employing the modern sense 5b appears to have in mind is never, say, ecology or geology, or indeed plasma physics or materials science, not to speak of mere engineering. It is rather the physics of rolling balls down tracks such as he learned in high school. The proud economist who believes he is imitating physics, however, knows little about how real physics works as a recognized department of learning, especially at its frontiers. The

21 Martineau 1838, “Introduction.”

economist believes, for example, that theorists in physics, behave the way the so-called economic “theorists” do, spurning the physical equivalent of a merely factual *Journal of Economic History*. He also believes – doubt has never entered his mind – that the axiom-and-proof style of thinking he learned in the Department of Mathematics is prestigious also in the Department of Physics.

Such an economist might perhaps examine the works of some actual physicist – Richard Feynman, say. Look for example at the *Feynman Lectures on Computation* (given mid 1980s; published 1996) for his attitude towards approximation (for example, pp. 128-129), and of course the *Feynman Lectures on Physics* (1965; Reading, Addison Wesley), for his deep respect for the actual – not the “stylized” and erroneous – facts of the physical world. In his memoir, *Surely You’re Joking, Mr. Feynman*, he describes how he could crack the safes of the older scientists at Los Alamos because he knew the physical constant that, say, a chemist was likely to use as his combination. Feynman was someone who knew the merely factual in aid of real science, and did not think theorem-proving was science. He tells how when in graduate school at Princeton he would run rings around the students in the Department of Mathematics – not by being better at proving theorems but by being better at pretending to misunderstand the physical equivalent of the theorem to be proven.

The point of using the English word “science” here as most of the world does is that nothing except an ignorant vanity is served by confining “facts” and “reasonings” to naïve imitations of high-school physics. Systematic inquiry in a recognized department of learning (*Wissenschaft, wetenschap, scienza, science, kagaku, vijñāna, bilim*) can in economics and history be social-science-quantitative, as in the statistics of income, or it can be applied mathematical, as in the logic of diminishing returns. I have used both heavily since my youth, and use them here again. But the scientific inquiry can also be humanistic-qualitative, as in testing the spirit of an age by its plays, films, poems, novels, letters, and modes of using language, methods I added after 1980 by way of the study of Greek rhetoric. If used systematically in studying, all of them are “scientific.”

I try in particular to be an *empirical* scientist – that is, to be a systematic student of the world as it actually is, not mainly a student in those other, wonderful but non-empirical sciences that examine worlds whose kind and existence are to be debated. Such other worlds, “and other seas;/ Annihilating all that’s made/ To a green thought in a green shade” are the proper study of the scientific humanities, of philosophy, mathematics, theology, and the more speculative parts of economic theory. They are fields I admire, and have even written in and about.²² But I myself claim mainly and merely to be a scientific student of the happenings in the extant economic world.

In my own empirical writings in economic and historical science you can find plenty of equations that look a little bit like the physics you learned in high school. You can find them here, too, if you are an economist and can spot them behind the prose. $Q = I(D, B, R) \cdot F(K, sL)$. But it is not a wise scientific policy to *limit* economic or historical

22 Cite my items backing up the claim

empiricism to this or that Method. There exists no epistemological justification in modern philosophy for such limitations. Let us examine all the evidence – of human meaning as much as of human behavior.

* * *

And I even express political opinions here – another deviation from the rhetoric of the economist’s and the historian’s Empiricist Monologue. In such matters, true, one should take care. As the counselors on English style, William Strunk and E. B. White, warn, economistically, “To air one’s [political] views gratuitously is to imply that the demand for them is brisk.”²³ But since the 1960s I have been repeatedly surprised by the unintended fraudulence of Objectivity among my beloved right-wing colleagues in economics and my beloved left-wing colleagues in history, English, and communication studies. It might be better scientifically, and certainly ethically – a matter of knowing oneself – to be candid about the human politics necessarily underlying economics and history and the study of language and philosophy, the better to keep an eye on the politics. All are human sciences. You can be politically indifferent about atoms of hydrogen, but not about your neighbor and how she talks and deals. Such openness is better perhaps than a pretense of having attained in a human science an unattainable View From Nowhere.

My own politics nowadays, in case you care, is bleeding-heart or motherly or Christian or social or left libertarianism. In adolescence it was left/pacifist anarchism and then soft Marxism and then leftist Democratic Party and then moderate Chicago-School. In 1972, age 30, I was a poll watcher in Chicago for the anti-Vietnam-War George McGovern’s presidential bid (we lost, and at my station on the far South Side the genial representatives of the Machine stole the ballot box from under my nose). I’ve been in my life pretty much everything sweet and reputable except a Burkean conservative or a traditional Republican.

But I have tried in all my work from the 1960s to the present to keep the politics tethered to relevant scientific facts and reasonings, the better to shift the discussion to what we might agree about, by listening, really listening; or at least disagree about peacefully.²⁴ The empirical tethering gives some prospect down the scientific road of resolving the disagreements. In particular I learned in the middle of the road of our life that a recognition of the *rhetoric* of science makes the sources of the disagreements more visible, and therefore more discussable, and therefore perhaps less disturbing of the peace. As was argued many decades ago by the American literary critic Kenneth Burke (the other Burke), looking back on what we are doing, empirically and rhetorically, purifies the angry disagreements, and supports government by discussion, and might possibly end the political war. *Ad bellum purificandum*.²⁵

A few of the scientific facts and reasonings reported here are my own discoveries. Many more are discoveries by other economists and historians and

23 Strunk and White 1979, p. 23.

24 cite blog

25 Burke DDDD

students of literature – for example that Harberger triangles are small, or that a Great Enrichment happened after 1800, or that the novel was bourgeois. Such scientific findings are well known among our academic crowd. But they are not so well known outside. Their relevance to evaluating the modern world needs to be tested and, if true, exhibited.

In short, I recommend, with a line of students of the actual economy such as Bart Wilson, Nancy Folbre, Vernon Smith, Albert Hirschman, Kenneth Boulding, Jane Jacobs, Friedrich Hayek, Frank Knight, Jacob Viner, John Maynard Keynes, Charlotte Perkins Gilman, Alfred Marshall, Thorstein Veblen, John Stuart Mill, Richard Whately, Harriet Martineau, and Adam Smith, a science of “humanomics.” Martineau wrote, I think in 1838, that “when one studies a society, one must focus on all its aspects, including key political, religious, and social institutions.”²⁶ To be sure. It implies an economics that uses mathematics and statistics and experiments, but uses, too, the illuminating parts of film, song, fiction, politics, history, linguistics, philology, biography, theology, philosophy, anthropology, archaeology, and literary study. The humanomics here practiced attempts to gather all the wide definition of science in sense 3b. As the economic historian T. S. Ashton put it in 1947, we will make more progress in science if we walk on both our legs, quantitative *and* qualitative, numbers *and* words, behavior *and* meaning – instead of insisting, out of a long-exploded philosophical dogma, that we should hop only on one.²⁷

26 Martineau 1838 is I believe the source of this oft-quoted but never cited remark. I am ashamed to have to rely on secondary quotations for it.

27 Ashton 1946 (1971), p. 177.