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Institutions Matter,
But Not as Much
as Neo-institutionalists Believe

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Reasonably good institutions, or substitutes for them coming from lively entry of better ones, are necessary for prosperity. That is to say, the *lack* of a certain amount of good ones makes for *non*-prosperity—which is what one means in logic when saying that such-and-such is "necessary." The presence of a certain amount of oxygen is necessary for human life, and so observing a human life sitting there implies the presence in some relevant delivery system of at least that certain amount of oxygen. The lack implies non-life, known as "death. To say that "***X*** is necessary for ***Y***", written as "***Y***→***X***," implies that you believe that "not-***X***→not-***Y***". Do it with Venn diagrams and you'll see it, literally. Yet note: the oxygen is intermediary. It doesn't *cause* human life. It's necessary, not sufficient. That is my main point.

Lacking the ethics or rhetoric of institutions or peace, the life of humans is solitary, poor, nasty, brutish, and short, as in Germany during the Thirty Years War**.** Lacking the liberal institution (to use a *very* baggy definition of "institution") of self-ownership in most of its variants, from religious liberty to the liberty to start a new business—as the world before 1776 chronically did lack—innovation is stifled. It yields the same outcome, poor, nasty, brutish, and short. Joel Mokyr gives a nice instance in which the members of the city council of a German city in the late 16th century voted in secret to drown in the local river an inventor whose invention would they believed cause unemployment. The Ottoman sultan was said to throw an inventor off a cliff. And so forth, down to modern luddites and protectionists and industrial planners.

In other words, you can explain why nations long *failed*, or now keep on failing, or devise plans to start failing—and can discern thereby the origins of poverty. You can explain the failures by noting the nasty incentives that, as Daron Acemoglu and James

Robinson argued in 2012, have led most nations for millennia a little or a lot away from the rule of law and of alienable property rights and the rest of conditions for efficient allocation. Good.

Modern enrichment, however, has depended not on allocation but on innovation. And the lacks on which the neo-institutionalists focus entail static effects that have remote and secondary influences on innovation—in particular on the liberal permission to innovate despite vested interests. Therefore neo-institutionalism with its focus on necessary causes and therefore on failures cannot explain the modern world, in its ever-widening number nowadays of parts succeeding. The World Bank reckons that the rate of improvement of world real income per person is and will continue to be about 2 percent per year. By the rule of 72, the average person in the planet will by the end of the century be four times better off than China and Brazil are now.

You can only explain why nations such as Britain and Japan and Botswana *succeed*, that is, by discerning in a proper economic science the strongly *sufficient* as against the weakly *necessary* origins of our startling modern prosperity. You can for example note with Francis Hutcheson of Belfast and Glasgow, or Elinor Ostrom, the sufficient cooperativeness, and note with his student Adam Smith of Glasgow and Edinburgh, or Friedrich Hayek, the inspiring liberties, jointly sufficient, that led a few nations, such as Holland and Britain early and the US, Sweden, and Korea late, toward innovation and enterprise and betterment. The right combination of substitutable causes are a sufficient and scientific expiation of the Great Enrichment 1776 to the present. It answers the central question in economic history, the nature and causes of the wealth of nations. Better.

The "institution" of liberal self-ownership was central. It entails that no one except an actual child or an actual prisoner is to be treated as a child or a slave. Treating people as children or slaves, unable in the face of their parents or masters to say No, *might* have nonetheless yielded the explosion of innovation we saw after 1776. Ancient tyrants and modern statists think such treatment can and does. No worries: boss, instruct, enslave, dominate, infantilize, centrally plan, and all will be well. But in contingent historical fact, top-down orders did not yield much innovation. The claim is empirical, not logical. Liberty notably increased during the two centuries after 1776, yielding an ideology and a fact of "innovism" (a word to be preferred to the scientifically misleading word "capitalism"). And all our joy.

The recency of innovism does not mean, as is sometimes supposed, that the centuries before saw few trades in land, labor, capital, and goods. Yes, trade was necessary for the explosive modern innovism. Imagine closing down all trade, international, local, personal, and you see why, and why Smith emphasized it in an world of 1776 still with modest innovation. Yet trade is not sufficient—or else modern

enrichment would have happened in ancient Sumer or the Indus Valley civilization or in Mayan society trading vigorously among its city states. That is, modern economic growth has not been mainly about getting by trade to a nation's given production possibility curve if starting from inside it, or starting on the wrong place along it, or being unable to get a little outside it by trade with other places. All such static effects are lovely to diagram and to teach. But they are not the explanation for the explosion outward of prediction possibilities per person by a factor of thirty and more, 1776 to the present. Trade is an engine of efficiency, of satisfactory if routine circulation, not of radical growth.

After all, the evidence of the Blombos Cave in 70,000 BCE or Sumer in 2,000 BCE or the Athenian agora in 430 BCE shows a great deal of trade in most societies of Homo sapiens, achieving a rough efficiency. Yet explosive growth there was none, until two centuries ago. People in the European Middle Ages engaged in trade of goods and factors of production most vigorously, contrary to a common if unhistorical understanding—such as in the claim by Karl Polanyi and his followers that trade and property and wage labor are recent. In particular, with the exception of thorough-going tyrannies like Russia under the Romanovs or Stalin or Putin, landed property in most societies is secure—contrary to the claim by Douglass North and his followers that its security awaited 1689. The institutions of property and contract in England were pretty well established before the time of Edward I. That is to say, the institutions resulting in good allocation—as prettily as they go into mathematics an diagrams—do not explain the Great Enrichment. Innovation does. Merely better allocation of, say, capital yields only Harberger triangles of enrichment, not 3,000 percent.

Humans of course have always innovated. But not until recently have they innovated rapidly enough to overcome Malthus. An ancient and modern contempt in many minds for the innovator, and the resulting control of innovation in most places, has radically slowed innovation. Merchants in Confucian countries were ranked below peasants, and only barely above might-soil men. No play of Shakespeare celebrates a bourgeois. Even Antonio the merchant of Venice is a right fool for love, love for the *aristocratico* Bassanio. And bourgeois Shylock, though he does speak in dignified blank verse, is held in a contempt usual in an England emptied of Jews until Oliver Cromwell. The contempt for the bourgeoisie (and Jews) was routine until the idea of liberalism sharply changed social attitudes, by a Bourgeois Revaluation, at first in the Dutch Republic of the 16th and 17th centuries, and then with a Dutch king and a Dutch stock market and a Dutch national debt in England, and then Scotland, and then the world.

This was the point that Alexander Gerschenkron made long ago in criticizing, in a characteristically economic way, the historical notion of necessary "prerequisites" for the Great Enrichment. Other institutions, he claimed, such as German banks and the

Tsarist state, could substitute for the laissez-faire entrepreneurship of Britain. But all of them, from Manchester to Moscow and beyond saw in their innovations the exercise of ideas by partially or wholly liberated people. People. Not institutions.

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Why is that?

Start with the obvious truth—denied by a neo-institutionalism satisfied with intermediate causes instead of ultimate ones—that human action must originate, every time, in a human brain. Long ago some African Homo sapiens had the idea of using a length of tough twine and the springy quality of some sticks to launch a little spear called an "arrow." Around the 8th century BCE someone traditionally named "Homer" had the idea of assembling a selection of the myths of the Greeks about the fall of Troy into a recitable and then write-downable epic poem called *The Iliad.* Someone actually called Mary Wollstonecraft had the idea in 1792 of playing off the French Declaration of the Rights of *Man* to write one on the rights of *Woman*.

In particular, every one of the millions of ideational molecules in the explosion of economically significant innovations since 1776 started as a creative idea in someone's mind. The good ones among the ideas, succeeding by market selection in the economy, and by aesthetic or practical selection in art and science abetted by the market, yielded at length the unprecedented Great Enrichment of a 3,000 percent increase of real income per person. If one allows for quality improvements, it was upwards of 10,000 precent. The magnitude sharply constrains what scientific explanations for it can be given t.

Calling it "creativity," by the way, does not mean, in the style of the Romantic movement, that the ideational molecules were uncaused causes "dreamed up," as we say, by a "genius." An idea itself can have individual and social, material and rhetorical causes, which one can look into. An economic science should. But anyway such an idea initiates every economic change—a disequilibrium, a disturbance of the circular flow, a $100 bill dropped on the pavement, a deviation from the routine way of doing business or art or science. Printing. Portuguese "we must sail." Abolition. Sewerage. Photography. Electricity generation. Women's rights. The germ theory. Mail order. Powered flight. The internet.

Each molecule of innovation, when tested in commerce like the mail-order company in the 1890s or in collective judgment like the Good Roads movement in the 1920s, makes profitable in the economy this or that re-allocation of capital, labor, land, location, or previous ideas. The re-allocations are intermediate causes, entirely dependent on the first idea, the *primum mobile*. James Watt had the prime-mover idea that the heating up and cooling down of a steam engine's cylinder with each stroke was

inefficient, and that therefore diverting the hot steam after each stroke to a separate condenser would be a good idea—though his fierce exercise of his patent right granted in 1780 froze out profitable new ideas about steam engines until its expiration in 1800 (so much for the allegedly net positive effects of the institution of patents). When Watt's idea could with other ideas have sex (says Matt Ridley) it was sufficient for railways and steamships. Wilhelm von Humboldt had the idea in 1810 of combining teaching and research, in the first modern university, the University of Berlin. The idea was sufficient for the German lead in chemical research, while Oxbridge quarreled and dithered about chairs in chemistry replacing those in theology. Marie Curie neé Sklodowska had the idea in 1897 that radioactivity came from no chemical reaction of material molecules but from the very atom. The idea was sufficient, after some sex with Hilbert spaces and the rest, for modern particle physics. Konrad Adenauer, when autos became fast and roads smooth and accidents horrific, did not have the first idea of the limited access and divided highway, but as Mayor of Cologne he did have the idea of implementing the first actual *Autobahn*, in August 1932. Malcolm McLean had in early 1950s the idea for containerization, and implemented it in 1956. The idea was sufficient, together with a few helpful necessary conditions such as getting around the (justified) luddite fears of longshoremen, for modern cargo transport.

And—highly relevant to the history of thought sketched here—the amiable and persistent Robert William Fogel had the idea in 1960 of applying modern economics to the institutional change called the Union Pacific Railway, and then in 1974 with Stanley Engerman of applying it to the Peculiar Institution of US slavery. The idea was sufficient for scientific advance in cliometrics. Fogel's cowinner of the 1993 Nobel for inventing cliometrics in that happy dawn of the 1960s, the amiable and persistent Douglass North, in 1990 had the further idea of renaming such institutions "the rules of the game." His late idea was sufficient in cliometrics eventually to divert scientific attention from the primary and jointly sufficient causes of the Great Enrichment, ideas. Oddly, Doug during his prize-winning co-invention of cliometrics in the 1960s—unlike most of his predecessors in economic history such as Schmoller, Clapham, Gay, Ashton, and Fogel—had placed unusually *little* weight on institutions and the ideas enlivening them. He himself credited his colleagues at the University of Washington in the 1970s—Yoram Barzel, Robert Paul Thomas, and above all S. N. S. Cheung—with pushing his thoughts towards institutions (though omitting the ideas).

It is no great insight, then, to affirm that any innovation which is going to raise our game, as against maintaining it at its routine level—any new mechanical, biological, institutional, scientific, artistic, culinary, bureaucratic, entrepreneurial, athletic, personal idea—begins in a human mind. True, as the philosophers say, "instantiation"(Latin "giving an instance of") in word or action or thing is then necessary for an effect in the world. But the root cause of the human instances of a bettering word or action or thing

is a human idea. And after instantiation, the institution is sustained by human ideas. Instantiated a supreme courts is meaningless without judges with professionalism in aid of a true sense of justice, such as Richard Joseph Goldstone standing against South African apartheid. Contrast the judges now in China and Russia, and the resulting practice.

The point is obvious. Corporations, state offices, laboratories, sports teams, courts, universities, families and other institutions do not think and therefore do not innovate. Not literally. Literally a single human thinks an idea, and then perhaps persuades others to think it likewise. Thus Spencer Silver and then Art Fry deep in 3M Corporation noticed the perpetually light stickiness of a certain glue, and invented thereby the Posi-It Note. People did it, not institutions, though some officers of 3M had the ancillary idea of providing a tolerant environment for its scientists, a local case of liberalism. The English style of knitting, the Danish dairy cooperative, the Messi turn all in soccer came out of some human's mind and will.

The historical point in application of the philosophical point is that the greatly expanded permission under modern liberalism to think, and then to act, closed the deal. The master idea causing innovism, 1776 to the present, was liberalism—the right to say No, and the permission to act on a Yes. In 1890 Josef Haydn, in the livery of the House of Esterházy, had to beg humble permission of his master to go to make his fortune in London. A century later, a European newly arrived in the Powder River country of Montana and Wyoming, asked a man he encountered, "Who is your master?" The American replied, "He ain't been born yet."[1]

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Strangely, this obvious and obvioiusly important point has been mostly overlooked in economics and economic history, and in particular in the neo-institutionalism imitated by North. In his last sole-authored book, *Understanding the Process of Economic Change* (2005), Doug said repeatedly that he was interested in the source of ideas. Good for him. Wise move.

But instead of turning to the literary, philosophic, humanistic writings since the cuneiform on clay, the scratches on turtle shells, the glyphs on Toltec stone, which during four millennia have recorded a full and subtle conversation precisely about the source of ideas, he deferred to some future "brain science." That is, Doug believed that he was scientifically required to reduce ideas to matter, and then to the biological stimuli surrounding matter in the brain, every time. It is the materialist dogma. He took

[1] cite

the mind to be the same thing as the brain, the principal error in the new phrenology of some schools of brain science.

Brain science of this sort is as though close study of the physiology of Sandy Koufax's arm would give a sufficient account of his baseball pitching in 1966. Many actual brain scientists are more sensible. Raymond Tallis, himself a distinguished neuroscientist, reviewed favorably *Who's in Charge*?: *Free Will and the Science of the Brain* by Michael S. Gazzaniga, whom Tallis describes as "a towering figure in contemporary neurobiology." Tallis writes, sprinkling in phrases from Gazzaniga, "crucially, the true locus of this activity is not in the isolated brain," but "in the group interactions of many brains," which is why "analyzing single brains in isolation [the procedure in all behavioral economics and in much experimental economics] cannot illuminate the capacity of responsibility." By contrast, "the community of minds is where our human consciousness is to be found, woven out of the innumerable interactions that our brains make possible." Responsibility, Gazzaniga says, "is not located in the brain." It is "an interaction between people, a social contract—an emergent phenomenon, irreducible to brain activity." So said Smith in *The Theory of Moral Sentiments*. The experimental economist Bart Wilson, the pioneer of what we call "humanomics," makes the same point about the location of a sense of justice. To deploy an old joke among humanists, do we speak the language or does the language speaks us?

Most economists don't credit the Great Enrichment to the creative mind—to the vital few, as J. R. T. Hughes put it—and to the language spoken among minds—to the conversation, as the Dutch economist Arjo Klamer puts it. Most economists credit instead the intermediate tools the business artist picks up or devises: investment, accumulation, institutions. It would be like explaining Van Gogh's "Sunflowers" by leaving out Vincent's mind and will, and instead attributing the painting to the tube of synthetic chrome yellow number 1 he picked up, or the institution of the farmer's field in which he set up his easel to paint *en plein air*.

The biggest economic painting to be explained of course is that nature and causes of the wealth of nations. Airplanes instead of horses. Universities instead of illiteracy. Haute cuisine instead of black bread. Antibiotics instead of bleeding. 3,000 or 10,000 percent. The neo-institutionalists pass by it, in favor of betterments in allocation. Acemoglu and Robinson, Geoff Hodgson and Peter Boettke, Avner Greif and Joel Mokyr, to name the neo-institutionalists I know best, are all highly intelligent economic and historical scientists, who earnestly want to find the truth about the economic painting. Many of them are dear friends of mine, and allies even in many other scientific endeavors. But they don't appear to see that institutions are intermediaries between conception and creation, like capital. Capital such as synthetic chrome yellow number 1 is not causal without a bright idea for its use. Institutions such as a farmer's

field in Arles are not causal without human ethics ("schmethics," said one them to me) and ideology and integrity.

And the intermediate capital and institutions, the paint and the field, themselves come of course from other ideas. In human affairs it's ideas all the way down. An economic science therefore ought to attend to the conditions for good ideas.

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Neo-institutionalist economists have not really taken on the idea that ethical or rhetorical or ideological ideas can matter, sometimes quite independent of material incentives, and sometimes quite contrary to them. Going over the top at the Somme. Not cheating in your marriage. Facing up to scientific criticism of your economic history. Faith, love, courage. Not prudence only.

The neo-institutionalists and their fellow travelers keep falling back into arguments which say that formal Institutions (let us symbolize them by ***N*** because the other term we want to conjure with, Ideas, also starts with the letter I) suffice for growth (***G***, into which we can throw other good outcomes): ***N*→*G***. The neo-institutionalists, in their practice as against their claims to be interested in ideas, deny the force of *political* or *ethical* ideas. (If they redefine institutions to include ideas, as "*informal* institutions," of course, they are conceding the point, and making their theory into a tautology: "Ideas that cause growth cause growth." Well, fancy that.)

In particular, the neo-institutionalists deny the force of liberalism, an ethico-political idea first conceived by advanced intellectuals in northwestern Europe in the 18th century, such as Adam Smith's "obvious and simple system of natural liberty." Or else they rename liberalism the "transition proper to open access societies," claim to give it a prudence-only cause, and proceed to tautology.

The correct model, I say contrary to the neo-institutionalists, is not their ***N*→G**, but the obvious and slightly more complicated system of [***N*** and ***I*** and f(***N***,***I***)]→***G*.** The Ideas, ***I***, are to be understood as sound, pretty favorable ethical ideas about bourgeois and then working-class people acting in voluntary trades and trying out betterments such as the steam engine or, as Huck Finn put it, the idea of lighting out for the territories. The lighting out, or opening a hairdressing salon, or adopting an orphan, are economically important if modest innovations that even non-engineers can get the idea to do. Innovation is not all about the glorious lives of the engineers, as glorious as were John Ericsson or Isambard Kingdom Brunel. Likewise, the Institutions, ***N***, are to be understood as not glorious or perfect incentives, but pretty good structures for routines, such as the requirement to argue a plausible claim of *stare decisis* at common law, or the permission to *re*-invent mail-order retailing in the age of the internet, or the encouragement to light out for North Dakota in the oil boom. It includes as well the

Interests (also an ***N*** in its second letter) that drive rational-choice neo-institutionalism such as that of Acemoglu and Robinson, and earlier of North, Weingast, and Wallis. The function f(***N,I***) acknowledges that ideas and institutions (and interests) interact.[2] Yet ideas shape the way we think about our interests, as in the Greed Is Good 1980s.[3] The opening lines of the US Declaration of Independence (written by an enslaver even unto death) placed a steady pressure on US institutions to fulfill the promise of actual equality of permissions, a government of the people, by the people, for the people in which you were judged by the content of your character and by not the color of your skin. The institutions of Chinese censorship after Tiananmen Square and then under Xi Jinping suppresses the idea that Hong Kong might be a good model for the nation. And so it is all over the life of a speaking species. We'd better study ideas in our science, because like atoms and molecules, and unlike earth, air, fire, and water, they run the scientific show. Ideas can be studied, as we study molecules and atoms with electronic microscopes and cloud chambers, by taking up that remarkable mind-revealing technique. applicable even to dead people, the one called reading.

In the present case, what actually changed in the 18th-century in Britain was ***I***, ideas, not mainly ***N***, institutions. Mistaken neo-institutionalist histories to the contrary, such as North and Weingast's essay in the *Journal of Economic History* about the Glorious Revolution of 1689 in its tricentennial year, institutions ***N*** did not change in Britain very much until late in the story. In some few respects they began to change after the rise of philosophical radicalism and the Representation of the People Act of 1832, such as in the then-new passion for codifications of common law. They more significantly changed during Lloyd George's term as Chancellor of Exchequer 1908–1915. All this was after the Great Enrichment, **G**, had got well under way.

If one believes the simple neo-institutionalism of North, Acemoglu, and others that, near enough, ***N***→***G***, then it follows, I've noted, that not-***G***→not-***N***. The hunt is on for institutions that failed, the not-***N*** that kept nations failing, resulting in a sad not-**G**, as in Acemoglu and Robinson's 2012 book, *Why Nations Fail*. But if one believes that [***N*** and ***I*** and f(***N,I***)→***G***], then it follows in equally strict logic that not-***G***→*either* the existence of not-***N*** (bad institutions) *or* not-***I*** (bad ideas) *or* bad consequences of the interaction function f(***N,I***), *or* all of them. (By the way, this elementary point in logic has been known in the philosophy of science since 1914 as Duhem's Dilemma. In one line of symbolic logic it disposes of the Samuelsonian-Friedmanite falsificationism underlying econometrics and much of the other rhetoric of economic science since the 1930s.) The hunt is on for either bad institutions or bad ideas or bad interactions between the two,

[2] Credit Persky.
[3] as Mark McAdam of the University of Siegen pointed out to me.

with no presumption that hunting for the bad ideas or the bad interactions is somehow a lesser scientific priority.

Get to it, you economic historians. Or you policy people. The World Bank now thinks that $N \rightarrow G$, just as once it thought $\Delta K \rightarrow G$. Add institutions and stir, as once it added capital and stirred. But without the relevant ***I***, provided by Pakistani lawyers trained in British traditions standing against theocrats, or Danish engineers and economists trained in common sense standing against politicians, neither ***N*** or ΔK will cause ***G***. Often applied thus they will cause not-***G.***

Yet neo-institutionalists such as North and Greif and Acemoglu and Robinson carry on ignoring the force of ideas. They say they don't, and surely they honestly believe they don't. But they do. In a debate with me in the pages of the *Scandinavian Economic History Review*, for example, the neo-institutionalist political scientist Barry Weingast, with characteristic grace and intellectual honesty, admitted that "the importance [of the idea of equality of permission in liberalism] is woefully underappreciated in the literature…. Students of development and the Great Enrichment have failed to see the critical role of these ideas." But he then proceeded to reiterate the materialistic vested-interest model, without ideas, that he, North, and John Wallis claimed they put forward in their modestly subtitled book of 2009, *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History.*

They wanted perhaps to be seen as tough-guy materialists. But in fact when North, Wallis, and Weingast sought explanations of the "transition proper" to liberalism (which as I noted they renamed "open access societies") they fell naturally into speaking of a change in rhetoric. Two crucial pages of their book speak of "the transformation in thinking," "a new understanding," "the language of rights," and "the commitment to open access."[4] The cause, they are saying without a realizing they are, was a changed ideology, which their interests-only, Max-U, non-cooperative game theory ignores. The North, Wallis, and Weingast explanation for why Britain, France, and the United States ("recorded human history") tipped into liberalism is ideational. Such ideational explanations are recommended by the (tiny) school of ideational economic historians Joel Mokyr, Jack Goldstone, Margaret Jacob, and me. Ideas change and ***G*** takes place or does not, we say, because of sweet or nasty talk as much as because of good or bad material interests. $\boldsymbol{N}$ *and* $\boldsymbol{I}$ *and* $f(\boldsymbol{N}, \boldsymbol{I}) \rightarrow \boldsymbol{G}$.

What actually happened around 1776 was an ideological, ideational, ethical, rhetorical change towards liberalism. Thus the Spanish Constitution of 1812 and the Norwegian one of 1814. The political economist Dani Rodrik made the point in 2014, noting that "ideas are strangely absent from modern models of political economy….

[4] North, Wallis, and Weingast 2009, pp. 192–193.

The dominant role is instead played by 'vested interests.'… Taking ideas into account allows us to provide a more convincing account of both stasis and change." Bingo.

Consider, for example, an institution that undoubtedly did encourage innovative growth by results more significant than its direct effect of a little more allocative efficiency—a large free-trade area. It gets big ***G*** through the political economy, not through the allocative economics, because in a large free-trade area, local vested interests are less able to block an idea for overall betterment. A typical result of early liberalism was to overcome local interests—for example, the local interests of the fiercely protectionist cities of medieval times, or the generalization to national protectionism in the mercantilism of early modern times.

The large free-trade area was expressed in black-letter law in the American constitution, though requiring later ideational defenses (***I*** interacting with another ***I***) by Supreme-Court justices (***N***, though supported by ***I*** back to Locke, Montesquieu, and Blackstone). The same occurred in British practice, without a written constitution ***N*** = f(***I***)—but having for a while a liberal ***I***, and also a pretty large internal free-trade area, and then after the 1840s the area of the world. Customs unions supported by new ***I*** like the Zollverein, or by the descendant of an old ***I*** like the Austro-Hungarian Empire, were other examples. So was the Chinese Empire early and late, though it shows that a large free-trade area does not suffice.

In other and earlier places, by contrast, local monopolies unchallenged by wide competition surely did discourage innovative growth, which is to say that not-***N***→not-***G***. One might want therefore to deduce that ***G***→***N***, that is, that if there was growth, there must have been the institution in place of a large free-trade area. But wait: lacking the ethics ***I*** of liberalism, the trouble is that, even with a large free-trade area in black-letter law, the irritating competition from across the mountains or the seas inspires people to petition the state for protection. Such rent seeking can be more profitable, allowing for improvements in the technology of bribery, when sought in the bulky states of modern times (the "Leviathan "about which Acemoglu and Robinson have such kind things to say in a recent book). Look at K Street in Washington. In the individual states of the US, for other examples, widespread state licensure for professions (greatly tightening in recent decades) and the state prohibition of branch banking (loosening in recent decades) have had such a source.

In the UK during the early 19th century, a strong ethical conviction, ***I***, came to prevail among elites that such petitioning was shameful. As John Stuart Mill put it in *On Liberty*, "Society admits no right, either legal or moral, in the disappointed competitors to immunity from this kind of suffering; and feels called on to interfere only when means of success have been employed which it is contrary to the general

interest to permit—namely, fraud or treachery, and force."[5] In the US at the time such a conviction was less strong, to put it mildly, but the internal market was even larger. The point is that without a liberal conviction or the wide market, the black letters will be dead letters: [not-***I*** and not-***N***]→not-***G***. Ideas matter, ideology matters, and ethics matters, both in themselves and in their interactions with institutions ***N***.

It is quite wrong, I repeat, to think that the institutions faced by British entrepreneurs large and small by 1800 or in many respects even by 1900 were radically different from the ones they faced in 1685. On the other hand, ideas about what was honorable and appropriate, to be praised among right-thinking folk, did change, most radically, and at the right time for a scientific explanation of growth. Compare the attitude toward commerce and its people, for example, in Shakespeare in 1605 as against Jane Austen in 1811. By 1874, in Trollope's *Phineas Redux* (1874) the contempt for a man without an occupation, such as the aged Duke of Omnium, is palpable. The heroine Madame Goesler, herself the widow of a rich bourgeois (and Jew), by then "knew that no man should dare to live idly as the Duke had lived." A minor character in the novel, Gerard Maule, though not an aristocrat as was the duke, was according to Mrs. Atterbury (of Florence, who "had been an intimate friend of Garibaldi") "the most insufferably idle man who ever wandered about the world without any visible occupation for his hours." "'But he hunts,' said Adelaide. 'Do you call that an occupation?' asked Mrs. Atterbury with scorn."[6]

And the crucial economic point is that ideas are intrinsically subject to economies of scale and can therefore yield dynamic effects of a magnitude able to explain the astounding factor of increase during the Great Enrichment of real income for the poorest among us. In fact, *only* ideas can. Capital and institutions are ancient commonplaces, both often obstructive, and subject in further accumulation to sharply diminishing returns. Increasing the accumulation of power over the economy of the institution of the institution of, say, the US Congress or the Presidency may not be such a good policy for growth. Add to diminishing returns that institutions are usually designed to be conservative, and that most of the changes they do manage, such as falls in the cost of transactions, yield only static effects with little oomph, triangles of 2 percent or 10 percent. The oomph is miles away, scientifically speaking, from the Great Enrichment we are trying to explain.

The less committed of the neo-institutionalists, such as Joel Mokyr and John Nye, seem to believe in the North–Acemoglu pre-judgment that ***N***→***G*** on odd days of the month. This less-committed group calls ideas "culture," a ***C*** to be admitted into the

[5] Mill 1859 (2001), pp. 86–87.

[6] Trollope 1874, vol. 1, pp. 226, 155. The theme persists throughout the novel, e.g., vol. 1, pp. 149, 183, 214, 269.

story on the other, even days, as in Joel's account of the Scientific Revolution. But "culture" is merely the vague way in which economists talk when they have not actually taken on board the exact and gigantic literature about ideas, rhetoric, ideology, ceremonies, metaphors, myths, stories, and the like since the Greeks, the Talmudists, or the Sanskrit grammarians.

Economic historians, get to it.

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Understanding institutions as routine like capital leads back to the usual economics. Routines are fine things, sustaining an equilibrium, such as a circular flow in a whole economy. The business metaphor of a "supply chain" is the routine, fixed, usual, habitual set of transactions to make, say, an automobile. The Samuelsonian economist's generalization of the routine is the Leontief routine input-output matrix or, with a little substitution allowed, the routine Wicksellian-Solovian production function. The neo-Marxist economist's parallel generalization is the routine Ricardian-Sraffian fixed coefficients for the production of commodities by commodities, or more widely what they call "structure." The neo-institutional economist's parallel generalization is the routine institution, what they call the rules of the game. None of these allows for creativity or human action beyond a Max-U response to incentives. In Solow's GDP = $\mathbf{A} \bullet F(\boldsymbol{K},\boldsymbol{L})$ the point was that F is the routine about which the marginal productivity theory of the 1870s can speak. The $\boldsymbol{A}$ is the novelty which can be therefore measured as a residual—which Moe Abramowitz called a measure of our ignorance. Whereof one cannot speak, namely thereof one must be silent.

Behavioral economics criticizes the Max-U supposition of Samuelsonian economics. Likewise, before the letter, did old institutionalism, such as Veblen Veblen's blast in 1898 against British economics, with its allegedly necessary assumption of the "hedonistic conception of man . . . of a lightning calculator of pleasures and pains, who oscillates like a homogeneous globule of desire of happiness under the impulse of stimuli."[7] Bizarrely, though, the behavioral economics slides past the market innovations, themselves ideas from human brains, such as Marshall Field's department store or Angie's List, that can and often do improve upon the imperfections of our cognition. And bizarrely, too, neo-institutionalism adopts with enthusiasm a solely reactive and uncreative Mr. Max U, as in a non-cooperative game theory (a theory repeatedly falsified by economic experiments and the Ostrom-Klamer conversation).

We as economic historians, that is, should inquire into the sufficient conditions for the creativity that made the modern world. Such an inquiry is an economic science

7 Veblen 1898.

focused on actual causes instead of intermediate steps such as routine production functions or routine institutions.

Elevating a necessary condition such as property rights to the cause of modern growth, to mention one of the favorites of the Northian school, would be like elevating the existence of the tomato in Europe after the Columbian Exchange to the cause of Escoffier's *sauce tomate*. It was necessary, obviously, but not sufficient, equally obviously. The British, the Dutch, and the Germans had the necessary tomatoes, too, but did not have the sufficiencies that made for their glorious Italian and then French use. Tomatoes, labor, and capital in France made for French cuisine; in Germany, German. (I rest my case.)

Or, take pastry. Austria, Denmark, and France, alone among European nations, know how to make superb pastry. If you drive from Copenhagen across the bridge and down to Malmö in Sweden, the pastry made shifts from ambrosia to fodder. The Swedish recipe and its Swedish makers were not created equal to the Danish. The necessary conditions featured in neo-institutionalism are commonplaces, like sunlight or tomatoes. In explaining innovism we need a scientific study of sufficient creativity and its conditions.

Mainly ethics—not mainly law—holds societies together. Observe that not one of the old law-abiding societies yielded modern economic growth until in 18th-century Britain and its North American colonies the ancient routine of reasonably good laws was mixed for the first time in agricultural societies with an entirely new idea—a liberalism of egalitarian permissions (not equality of "opportunities" or resulting incomes), first in Dutch cities and then theorized in French salons, and then applied comprehensively in the Anglosphere.

The liberal releasing of human creativity has sufficed for growth, when the routine and necessary and helpful conditions have obtained, as they do quite widely. The ingredients in the existing recipe books routinely do exist, such as property rights, rule of law, capital markets, liquid water, oxygen in the air, absence of an active civil war, the arrow of time, and the existence of the universe. Northern Italy, the Ottoman Empire, Northern India, Japan, and China had for centuries all such necessary conditions, as had the Mayan, Roman, and Assyrian states before. Yet they did not achieve the Great Enrichment emerging from a Dutch-influenced and liberalizing England around 1700, and spreading after 1800 to the world.

Therefore I say to my beloved colleagues in economics and history and economic history: please stop putting forward as yet another explanation for the shocking betterment since 1800 yet another weakly necessary condition. Canals. Banks. Coal. Or tomatoes.

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The American columnist and political theorist George Will is good on this. He argues that "the Founders intended the Constitution to promote a way of life." Will's term for the way a government shapes the ethics of its citizens, for good or ill, is "soulcraft." Soulcraft "is something government cannot help but do. It may not be done competently or even consciously, but it is not optional." He is, of course, correct. By this route, surely institutions "matter," and some of them are governmentally "crafted" (if that is quite the right word for what is done, Will concedes, often unconsciously and incompetently). The commercial values that the US Constitution purposed did help create a new people in a new republic, if we can keep it.

In particular, during 1789–1865 some of the people acknowledged in the Constitution were slaves, and slavery, among some other state-supported institutions, mattered mightily as soulcraft, and not for good. Will quotes Tocqueville on the contrast in 1831 between the two banks of the Ohio River. On the Kentucky bank, Tocqueville wrote, "society is asleep; man seems idle" because the Peculiar Institution had made physical labor undignified for White people. On the Ohio bank, by contrast, "one would seek in vain for an idle man." Will concludes that the two institutions, slave and free, "result in radically different kinds of people." The historian of South Africa Hermann Gilomee comes to the same conclusion about the effect on the White Afrikaners of having Black people enslaved, and later the Black and colored people anyway subordinated to an illiterate Afrikaner up on a horse—until, after the Boer War, their leaders, such as clever Jan Smuts, took them in hand, giving them engineering educations, and jobs on the railways, and taking away the same from Black and colored people. Therefore, of course "institutions matter." For failure.

But observe the deep ideational causes of the very institutions, and subsequently the ideational route of the mattering. In each case, slavery and liberty, an institution was an intermediate step inspired by ideas, and having many of the effects of the bad and good institution by way of ideas in minds. Thus slavery: "I'm an old Rebel solider, now that's just what I am. / For this fair land of freedom I do not give a damn." Thus liberty: "As he died to make men holy, / Let us die to make me free."

Liberalism was largely not a physical matter, but a mental matter, not chiefly the soil, but the soul, not only the incentives, but the ethics, *les moeurs*, *die Geiste*, the ideologies of elites and then of ordinary people. Ass Lincoln declared in the first Lincoln–Douglas debate, in 1858: "With public sentiment, nothing can fail; without it nothing can succeed. Consequently he who molds public sentiment goes deeper than he who enacts statutes or pronounces decisions. He makes statutes and decisions possible or impossible to be executed."

Thirty pages before the end of their recent book, by way of a *refutatio* of liberal ideas as causal, Acemoglu and Robinson (p. 466) quote at length the liberal Friedrich Hayek, writing in 1956, a dozen years after his surprise best seller, *The* [Big-State] *Road to Serfdom*:

> the most important change which extensive government control produces is a psychological change, an alteration in the character of the people. This is necessarily a slow affair. . . perhaps over one or two generations. The important point is that the political ideals of the people and its attitude toward authority are as much the effect as the cause of the political institutions under which it lives. . . . . Even a strong tradition of political liberty is no safeguard if the danger is precisely that new institutions and policies will gradually undermine and destroy that spirit.

Acemoglu and Robinson, who favor bigger sates, claim in response that something they call "society" (compare the neo-institutionalist use of the word "culture") can curb the Leviathan that might otherwise, as they understand Hayek to have said, to serfdom. But Hayek's point is not mechanical institutions but soulcraft: that you make people into children if you treat them like children of a feared or revered Papa of Mamma Leviathan. Recent developments in US politics are not reassuring that we have avoided the internal, psychological road to serfdom.

The Leviathan, to give another example of Acemoglu and Robinson's attempt to avoid ideas as causes, "is shackled by people who will complain, demonstrate, and even rise up if it oversteps its bounds" (p 27). But look: complaints, demonstrations, and uprisings are precisely about spirit, ethics, and rhetoric. Consider January 6, 2021 in the halls of the US Congress or January 23, 2021 in a hundred Russian cities. The rising up contradicts the structural materialism of Acemoglu and Robinson and the rest of the neo-institutionalists. When they admit the limitations of a materialist account, they evoke "the desire to avoid the fearsome face of the Leviathan" (p. 53). But people fear in their minds, not in their big toes. Then they desire to avoid the "fearsome face" and are moved by ideas to move their mouths and toes with purpose.

Unlike the Chinese woman I heard in December 2020 on the BBC, the liberal revolutionaries are not persuaded by the illiberal faith that Order is to be favored over Liberty every time. The woman *scorned* the silly Western stupid-talk of so-called "liberty." Individuals, in her thinking, *must* be subordinated to the *volonté generae*, and such a general will is *of course* to be discerned by the Communist Party of China. Such institutions and policies, as Hayek said, will gradually undermine and destroy the spirit and idea of liberty, and turn people into dependent children, like the woman on the BBC.

Another word for liberalism, then, is "adultism," and in this it contrasts with the infantile dependence on the state that Acemoglu and Robinson find themselves

advocating, and that every other illiberal politics advocates: socialism, communism, fascism, nationalism, syndicalism, theocracy. Creativity and the supports for it in liberty and liberal ethics explain why we are better off materially, and not worse off spiritually, than the ancestors. Accumulation in all its mechanical forms, such as physical or human capital, and "structures" in all their mechanical forms, such as black-letter law and supreme courts, depend for their fruit on creativity supported by ideology and ethics.

You can see that ignoring the mind, as the neo-institutionalists do, and as for that matter do most economists since Ricardo (yet not our Blessed Founder), might be a fault in *une science humaine*. Admittedly, the tactic of voluntary ignorance has been a commonplace, if usually unconsciously adopted. My own early writings on entrepreneurship, for example, adopted the tactic. Shame on me. So too, with rather more consequence, do the sciences of humanity t that identify the mind with the brain and its material surroundings. "We emphasize," write Acemoglu and Robinson with a certain pride of macho materialist method, "that the impact of various structural factors, such as economic conditions, demographic shocks, and war, on the development of the state and the economy depends on the prevailing balance between state and society" (p 30), and again on page 31: "the structural factors making this type of zero-sum competition [are] more likely …. We emphasize several important structural factors."

When they turn to causes, material "structure" and game theory rule, not ideas. They see humans as rats in a structural maze, a narrow corridor. Yet students even of animal behavior are slowly extracting themselves from the Cartesian/behaviorist dogma that an animal is a machine. They have discovered that animals sometimes act without incentives, which is the distinctive character of the "human action" emphasized in Austrian economics. (The only trouble is that many Austrian economists are charmed by neo-institutionalism, which leaves them advocating for Leviathan, and violating to their beliefs in human action and spontaneous order.)

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Some ideas are bad—most of them, actually, or business and art and science would streak ahead at rates not observed. But in conditions of liberal free entry and exit their great number is fairly harmless, even helpful. A friend of mine in marketing research informs me that new *dog treats* have been offered to the US market in the past five years in the number of . . . 1,700. Each year tens of thousands of new products are tried out in US grocery stores, only a few score of which succeed.

And some large-scale ideas are bad to the point of misery. Most state institutions, as against free-entry innovism, are of course long-lived even when the idea inspiring them is a bad one. The Anglo-French Concorde, praised for example by

Marianna Mazzucato in her 2012 book, is a case in point**.** Strict central planning, to name a big and persistent and infantilizing idea, widely implemented after 1917 and especially after 1945, proved to be an exceptionally bad one. The old doctrine in English common law of *femme couverte*, under which married women could not own property, was another. Other slaveries were bad, too. Fogel and Engerman had argued that the gang system in large plantations had at least the benefit of rising predictivity. Olmstead and Rhode have shown hat on the contrary the rising yield of the cotton plant before the Civil War came out of selective breeding—which one might expect would have gone on whether or not some proportion of the South's cotton crop came from large plantations. It came out the part of Southern society that was economically liberal, not out of the other part

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So institutions matter, but not as much as neo-institutionalists believe. And that "not as much" suggests one final point. We economic historians properly pride ourselves as scientists—I have written, only half joking, that we are the *only* scientific economists. Ha, ha. But it is notable that neo-institutionalist economic historians skirt the *measurement* of importance.

You will complain: "How can turning to ideas help *that*?!" It can if we do the measurement seriously, looking deeply into the history of innovation. Merely listing innovations—as I have repeatedly here for example—does not complete the scientific job, though it might get it started, as all science must with a humanistic question and categorization. Robert Margo once wisely said at a meeting of economic historians that lists of innovations, no more than lists of institutions, do not suffice. One has to measure their oomph, as Fogel did for example in railways and North in ocean shipping.

And once we get serious about what caused the modern world, identifying its central character with humanistic methods of historical comparison and philosophical reflection, we can get serious about measuring it, relevantly Going on talking about ideas and institutions without measurement uses what the economic historian John Clapham presciently called in 1924 "those empty economic boxes," theories without measurement in the world as it is.

And intermediate causes are anyway empty. Let us avoid a tomato theory of French cuisine.