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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, or the personal liberty to devise good ones, are necessary for prosperity. That is to say, the *lack* of a certain amount of access to 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 therefore observing a living human sitting there implies the presence, from 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 "$\boldsymbol{Y} \rightarrow \boldsymbol{X}$," implies that you believe that "not-$\boldsymbol{X} \rightarrow$not-$\boldsymbol{Y}$". Do it with Venn diagrams and you'll see it, literally. Yet note: the oxygen is intermediary. It doesn't *cause* human life, which is caused by a jointly sufficient bundle of conditions, such as having been born, raised up, and not suffering meanwhile from oxygen depreciation, one among an unlimited number of necessary conditions without which you would not quite be the quite lovely you I am sure you are. The oxygen necessary, but not sufficient. That is my main point about "institutions" in economic history.

Lacking the ethics or rhetoric of institutions or a long period of peace, the life of humans is solitary, poor, nasty, brutish, and short, as in Germany during the Thirty Years War**.** To use for a moment a *very* baggy definition of "institution," lacking the liberal 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—

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innovation is stifled, especially that matter of starting a new business. Such a lack 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* (Britain before 1776), or now keep on failing (Egypt), or are busy devising fresh plans to commence failing (China now)—and can discern thereby the origins of poverty. You can explain the failures by noting the nasty incentives facing elites 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 the weakly necessary conditions for efficient allocation. It's a useful thought, if a trifle shop-worn by now, two and a half centuries after its first articulation.

Modern enrichment, however, has depended not on allocation but on innovation. And the lacks on which the neo-institutionalists focus (as did at first the liberals in the 18th century) entail static effects that have remote and secondary, and anyway unargued and unsupported and above all unmeasured, influences on innovation—in particular on the liberal permission to innovate despite vested interests. The early liberals like Smith therefore didn't realize how very rich the liberal permission would eventually make us.

And therefore neo-institutionalism with its focus on alleged necessary causes and therefore on *failures* cannot explain the modern world, in its ever-widening number nowadays of parts wonderfully succeeding. The World Bank reckons that the rate of improvement of real income per person in the world is and will continue to be about 2 percent per year, which seems a good guess. 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, which will be half again as high as US income now. New success, not old failure.

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. Alexander Gerschenkron long ago made the characteristically economic point about substitutes along institutions, and against 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. Gerschenkron and I seek the jointly sufficient conditions for success.

Necessary conditions are commonplace. But the sufficiencies are decidedly not. 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. Economists and economic historians have struggled to acknowledge sufficiency as against necessity now for about a century, running through capital accumulation and other mechanics of growth theory but finding that they don't factually work as science. The economists and economic historians keep falling back into intermediate necessities, which are easy to spot but are not the real causes. And they do not look for sufficiencies causing the stunning innovation of the past two centuries, which are harder to spot—but are the causes we seek.

The "institution" (to go for a moment along win the baggy definition) 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. Going on 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 seen after 1776. Ancient tyrants and modern statists think it does. Not to worry, they say: if a master will but firmly rule, instruct, enslave, dominate, infantilize, plan, all will be well. But in contingent historical fact, such top-down mastering did not yield much innovation. The claim is empirical, not logical. The tyrants and statists have proven to be wrong in fact about innovation.[2] 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 explosive modern innovism. Imagine closing down *all* trading, international, local, personal, and you see why it's necessary, and why Smith emphasized it in a world of 1776 still witnessing only rather modest innovation—modest at any rate compared with the explosion that liberalism soon began to yield in the 19th century. Yet trade is clearly not sufficient, or else modern enrichment would have happened in ancient Babylon or the Indus Valley civilization or in Mayan society trading vigorously using cocoa beans for money among its city states. The Indian Ocean was a much bigger trading emporium for centuries before the Atlantic came into

[2] For the data on this, see McCloskey and Mingardi 2020.

its own. That is, modern economic growth has *not* been mainly about getting by trade to some place's given production possibility curve, if starting from inside it; or starting out on the wrong place along it, and then getting right; or being able suddenly to get a little bit outside it by trade with foreigners.

All such static effects are lovely to diagram and easy to teach. Joel Mokyr, who is affectionate towards neo-institutionalism, if unwilling quite to stake scientific life on it, wrote against my point about such little static gains that "Szostak (1991) has listed many of them: economies of scale and standardization of product quality were uppermost as well as more effective competition and impersonal trading at arm's length with unknown people. Market integration also affected human capital formation. Kelly, Mokyr and Ó Gráda, 2021 show that regional specialization increased the rate of return on investment in apprenticeship."[3] All that is true, I am sure. But such interesting reallocations and lovely efficacies are not an explanation for the explosion outward of production possibilities per person by a factor of 30 and more, 1776 to the present. They are 2 percent improvements nationally speaking, here and there. The famous and massive enclosure movement of the 18th century, I argued long ago and Robert Allen confirmed, increased national income by a mere 2 percent. It takes 2-percenters in the number of fifteen hundred to yield the Great Enrichment. Obviously, what needs to be explained is not the adjustments here and there that made three or four breaking waves of innovations, 2 + + 2 + 2 + 2, but the unprecedent tsunami that made for 1,500 of them.

Trade and specialization and economies of scale limited by the extent of the market are engines of efficiency—of satisfactory if routine if even a little improved 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. It achieves a rough efficiency, getting on to the existing production possibility curve, or thereabouts. Yet in such places no explosive growth happened, until northwestern Europe two centuries ago showed the way, with liberalism.

People in the European Middle Ages engaged in trade of goods and factors of production most vigorously, contrary to a common if unhistorical and non-quantitative 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 most of its rulers since the 17th century, landed property in most societies is secure—contrary to the unhistorical and non-quantitative claim by Douglass North and his followers that its security awaited 1689. The English institutions of property and contracts were well established before the time of Edward I.

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[3] Mokyr 2021.

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 it. 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 in the play, though he does speak in dignified blank verse, is held in a contempt conventional in an England emptied of Jews until Oliver Cromwell. The contempt for the bourgeoisie (and Jews) was routine until the idea of liberalism changed social attitudes. The liberal and innovistic idea came from a Bourgeois Revaluation, at first in the Dutch Republic of the 16th and 17th centuries, following on Burgundian cities earlier, 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. Commence even during wars was shown by the Dutch Revolt 1568-1648 and then by the French Wars 1792-1815 to make even the old elite more powerful, and so the elite decided to join in governing a polite and commercial people.

And then Manchester and Moscow and beyond experienced 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 called "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 about 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, themselves often abetted by the liberal 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 more like 10,000 precent. Such a magnitude sharply constrains what scientific explanations can be given.

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 lone "genius." An idea itself, such as the very idea of liberalism, can have individual and social, material and rhetorical causes, which one can look into. An economic science should do so, because our modern enrichment was caused by ideas, not by allocation. But anyway such an idea initiates every economic change—a disequilibrium, a disturbance to 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 peddler's wagon and local general store declined, and the motel and the restaurant chain flourished. Such re-allocations are intermediate causes of supplementary commercial and social ideas, but they are outcomes 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 patent right granted in 1780 froze profitable new ideas about steam engines until the patent's expiration in 1800 (so much for the allegedly net positive effects of the institution of patents). When Watt's idea could have sex (says Matt Ridley) with other ideas 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 atoms. The idea was sufficient, after some sex with Hilbert spaces and the like, for modern particle physics. Konrad Adenauer, when autos became fast and roads smooth and crashes horrific, did not have the original and German 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 in early 1950s had the idea for containerization, and implemented it in 1956. The idea was sufficient, together with a few helpful necessary if obvious conditions such as getting around the (justified) luddite fears of longshoremen, for modern cargo transport.

And—highly relevant to the particular history of economic thought adumbrated 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 when imitated by the rest of us was sufficient for scientific advance in cliometrics. Fogel's co-winner of the 1993 Nobel for thus 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." This later idea was sufficient in cliometrics eventually to divert scientific attention from the primary and jointly sufficient causes of the Great Enrichment, the ideas in human minds, and fixing attention rather on routines necessary only for allocation. Oddly, back 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—Doug had at first placed unusually *little* weight on institutions, the rules of the game, and the ideas giving them lie. 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 and their rules (though omitting the ideas, and therefore missing the cause of the modern world).

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. You have to actually build the *Autobahn.* But the root cause of the human instances of a bettering word or action or thing is a human idea. And after instantiation, the resulting institution, if that's what you want to call it, is always sustained by human ideas. An instantiated supreme court is meaningless without judges with an idea of professionalism in aid of a true idea 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, partnerships, state offices, laboratories, trade unions, sports teams, law courts, universities, clubs, constitutions, 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 good 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 in soccer all came out of some human's mind and will.

The historical point in application of this 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 without human obstruction. In 1890 Josef Haydn, in the livery of the House of Esterházy, had to beg leave of his noble 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?" Said the American, "He ain't been born yet."[4]

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Strangely, this obvious and obvioiusly important point has been mostly overlooked in economics and economic history. I myself overlooked it for decades, and most economists have for centuries, and now unsurprisingly it is overlooked 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 cuneiform on clay, scratches on turtle shells, glyphs on Toltec stone, which during four millennia have recorded a full and subtle conversation precisely about the source of ideas, Doug deferred to some fancied future of "brain science." That is, he believed that he was scientifically obligated 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 the mind to be the same thing as the brain, which is the principal error in the new phrenology of some schools of brain science.

Brain science of this sort is as though a 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 of experimental economics] cannot illuminate the

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[4] cite

capacity of responsibility," such as Justice Richard Joseph Goldstone. 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 Adam 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 speak us?

Most economists don't attribute the Great Enrichment to the creative mind—to the vital few, as the economic historian J. R. T. Hughes put it—or 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 invests in: capital formation, 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*. Necessary, yes, but easily substituted for (his friend Gauguin painted indoors and did not use chrome yellow), and not sufficient within a very wide array of possible Gerschenkronian substitutes. His mind and will surely were sufficient. I repeat that van Gogh does not need to be seen as an uncaused cause. Surely the liberal ideas of the Netherlands and France and the UK that nourished his wit and mattered for his raising up. But to explain "Sunflowers" you will turn to Vincent, not to chrome yellow or property rights.

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 instead of a bare doubling in over four hundred years. The neo-institutionalists pass by the 3,000 percent, in favor of better allocation. Acemoglu and Robinson, Geoff Hodgson and Peter Boettke, Avner Greif and Joel Mokyr, to mention the neo-institutionalists whose work I know best, (doubtless inadequately: I admit it; but let us converse), are all highly intelligent economic and historical scientists, who earnestly wish to find the truth about the economic painting. I warmly approve. Many of them are dear friends, and allies in other scientific endeavors. But they don't appear to see that institutions are intermediary between conception and creation, like capital. Capital such as a tube of 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, rom French chemistry, for example, and French law, from the minds of Louis Vauquelin and Jean-Étienne-Marie Portalis. In human affairs it's ideas all the way down. An economic science therefore ought to attend to the conditions for good and bad ideas.

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Neo-institutionalist economists have not really taken on the idea that ethical or rhetorical or ideological ideas matter, often quite independently 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 $\boldsymbol{N}$ because the other term we want to conjure with, Ideas, also starts with the letter I) suffice for growth ($\boldsymbol{G}$, into which we can throw other good outcomes): $\boldsymbol{N} \rightarrow \boldsymbol{G}$. The neo-institutionalists, in their practice as against their claims sometimes to be deeply interested in ideas, deny the force of *political* or *ethical* ideas. (If they re-define 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 as the "transition proper to open access societies," then claim to give it a materialist and prudence-only explanation, and then proceed to tautology. Thus Mokyr refers to Greif's "private order law," a most flexible definition of "institution," and praises "the idea of 'order without law' (Ellickson, 1991) in which people refrain from opportunistic behavior even without a third formal party threatening to punish them." But that is *Geist*, identity, ideology. Mokyr expressed astonishment that in London "commercial disputes rarely came to court," not realizing it would seem that this is the practice everywhere and at all times in business. He continues, as though it was peculiar to Britain, that "most business was conducted through informal codes of conduct."[5] As is Mesopotamia, from the evidence of business correspondence on clay four thousand years ago.

The correct model, I say contrary to the neo-institutionalists, is not their $\boldsymbol{N} \rightarrow \mathbf{G}$, but the obvious and slightly more complicated system of [$\boldsymbol{N}$ and $\boldsymbol{I}$ and f($\boldsymbol{N},\boldsymbol{I}$)]$\rightarrow \boldsymbol{G}$. The

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[5] Mokyr 2021. At the same place he misuses "gentlemanly," in a way that no 18th-century Briton would have recognized. A gentleman as someone without an occupation.

Ideas, ***I***, are to be understood as sound, pretty favorable ethical ideas about bourgeois and then working-class people acting in voluntary exchanges 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 an idea to do. Innovation is not only 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 not as perfect incentives, but pretty good incentive structures for routines, such as the requirement to provide at common law a plausible claim of *stare decisis*, or the legal 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 are claimed to drive rational-choice neo-institutionalism, such as that of Acemoglu and Robinson, and of North, Weingast, and Wallis. The function f(***N,I***) acknowledges that ideas and institutions (and interests) interact.[6]

Yet ideas shape the way we think even about our interests, as in the Greed-Is-Good 1980s.[7] The second sentence of the US Declaration of Independence (penned 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 to be judged by the content of your character and not by the color of your skin. The institution of Chinese censorship after Tiananmen Square and then with still more force under Xi Jinping suppresses the idea that Hong Kong might be a good model for the nation.

And so it goes 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, which astonishingly is applicable even to dead people—intelligent 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 the institutions began to change after the rise of philosophical radicalism and the Representation of the People Act of 1832, such as the then-novel passion for codifications of common law. They more

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

significantly changed during Lloyd George's term as Chancellor of Exchequer 1908–1915, and then again thirty years later with the Beveridge Report. All this was after the Great Enrichment, **G**, had got well under way.

I am not advocating, note, an equally simpleminded syllogism $\boldsymbol{I} \rightarrow \boldsymbol{G}$. People can cherish the ideals of liberty, as today the majority does in many nations from Burma to Byelorussia, and yet face institutions ***N*** such as an appropriately motivated army or police, or foreign relations, that keeps the imprisoning tyrant in charge. So it was for millennia, even when the idea of liberty occurred to people. In 1381 CE the defrocked priest John Ball was drawn and quartered at St. Albans for asking, "When Adam delved and Eve span, / Who was then the gentleman?" True, in the long run such an ***I*** may change the ***N*,** as it has done repeatedly since 1776, or indeed since 1517 in church governance or since 1649 on whether an appointed king can be tried and executed, with satisfactory results in economic growth. Nor am I saying that the institutions of full liberty are necessary for growth every time. With a sufficiently good side-condition ***I*,** such as "Keep tyranny in politics, but let people make money privately," China and Singapore provide counterexamples. Many economists in the West once believed the central planning in the Soviet Union was also one of those swell side ideas: "Keep tyranny in politics, but do *not* let people make money privately, that is, keeping tyranny in the economy also, but instead make Five-Year plans rationally".[8]

If one believes the simple neo-institutionalism of North, Acemoglu, and others that, near enough, $\boldsymbol{N} \rightarrow \boldsymbol{G}$, it follows strictly, I've noted, that not-$\boldsymbol{G} \rightarrow$not-$\boldsymbol{N}$. The hunt is on for institutions that failed, the sad not-***N*** that explain why nations fail, resulting in more-sad not-**G**s, as in Acemoglu and Robinson's 2012 book, *Why Nations Fail*. But if one believes that [***N*** and ***I*** and f($\boldsymbol{N},\boldsymbol{I}$)$\rightarrow \boldsymbol{G}$], then it follows in equally strict logic that not-$\boldsymbol{G} \rightarrow$*either* the existence of not-***N*** (bad institutions) *or* not-***I*** (bad ideas) *or* bad consequences of the interaction function f($\boldsymbol{N},\boldsymbol{I}$), *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 that underlies econometrics, and much of the other rhetoric of testing in economic science since the 1930s.) The hunt is on for either bad institutions or bad ideas or bad interactions between the two, with no presumption that hunting for the bad ideas or the bad interactions is somehow a lower scientific priority.

Get to it, you economic historians. Or you policy people. The World Bank now thinks that $\boldsymbol{N} \rightarrow \boldsymbol{G}$, just as once it thought $\Delta \boldsymbol{K} \rightarrow \boldsymbol{G}$. Add institutions and stir, as once it added capital and stirred. But without the relevant ***I***, provided by Pakistani lawyers trained in British traditions to stand on their professionalism against theocrats, or Danish engineers and economists trained in common sense standing against politicians,

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[8] Cite David Levy on Samuelson.

neither $\boldsymbol{N}$ or $\Delta\boldsymbol{K}$ will cause $\boldsymbol{G}$. Often they will cause some lamentable not-$\boldsymbol{G}$, because they do not properly value the opportunity cost, and misallocate—another Harberger triangle, if not the main cause of $\boldsymbol{G}$.

Yet neo-institutionalists such as North and Greif and Acemoglu and Robinson carry on ignoring the force of ideas on $\boldsymbol{G}$. 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." Yet he then proceeded to reiterate the materialistic, vested-interest model, without ideas, $\boldsymbol{N} \rightarrow \boldsymbol{G}$, that he, North, and John Wallis put forward in their modestly subtitled book of 2009, *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History.*

North, Wallis, and Weingast wanted perhaps to be seen as tough-guy materialists. But in fact when they sought explanations of the "transition proper" to liberalism (which L-word as I noted they renamed "open access societies") they fell naturally into speaking of a change in rhetoric, and the force of ideas in words. 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."[9] The cause, they are saying without a realizing they are, was a changed ideology, which their material-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 and social historians such as Joel Mokyr (when he's speaking of science, not material incentives), Jack Goldstone, Margaret Jacob, Eric Jones in some moods, and me. Ideas change and $\boldsymbol{G}$ takes place or does not, we say, because of sweet or nasty talk as much as because of good or bad material interests and institutions. $\boldsymbol{N}$ *and* $\boldsymbol{I}$ *and* $f(\boldsymbol{N}, \boldsymbol{I}) \rightarrow \boldsymbol{G}$.

What actually happened after 1776 in Britain and then beyond 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…. 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.

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

Mokyr has conveniently summarized some of the assertions in a neo-institutionalist view. He lists ten "institutional features that are important," and which can apparently be poured into societies by the World Bank. They achieve efficiency, yes. But then he notes also correctly that "the Industrial Revolution was about more: it was about creative destruction and technological change, people thinking outside the box and entrepreneurs deploying new ideas in new production techniques and new goods; it is far from clear how institutions encouraged that kind of change. It is far from clear whether the ten commandments above were necessary of sufficient for the tsunami of innovations we call the Industrial Revolution."[10] That's right, as I have said.

No so by the way, though, I do wish that my beloved *vriend* Mokyr would give up on the antique and misleading phrase "the Industrial Revolution," coined by one of the earliest enemies of innovism. The actual tsunami of inventions, as Joel himself has taught us, was "the subsequent Great Enrichment." The Enrichment, not the "Revolution," happened in the 19th and the 20th centuries, not in 1760. It makes Joel's claim, in agreement with the North and Weingast of 1989, that "the rise of Parliament . . . was the key to subsequent economic progress" look dubious mended. The timing is wrong: "Fairly soon after the Glorious Revolution" turns out to be a century or more. And Joel and other supporters of North and Weingast rely on an unsupported claim that before 1689 charters, contracts, property were insecure. [11] On the contrary, land in open fields became sharply *less* secure once Parliament set its collective "mind" on it.

The scientific question is which of Mokyr's Ten can be poured—that is, which one or several of them is a structure that can be dropped on a society without ideational, spiritual, ideological, ethical supports. Mokyr says that, "incentives and opportunities are set by institutions, "which is in line with his understanding that institutions constitute budget lines to which people react. He says that "institutions set the political and social environment in which innovators and entrepreneurs functioned." But an undoubted institution such as Parliament does not "make these rules," not the great bulk of the economically significant ones. The *Geist* of the people does.

And indeed even the constraints, the budget lines, are not close to fully specified by the formal rules of the game. The budget lines themselves are radically modified by what is accepted, praised, honored in the society. Mainly ideas, not mainly institutions,

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[10] Mokyr, Joel. 2021. "Incentives, Institutions, and Industrialization: A Prelude to Modern Economic Growth." PowerPoint slides for Italian Association for Economic History, September 17, 2021

[11] Gregory Clark and I are according to Mokyr the only people who believe this. Joel may be correct that the long comparative prospective that measures what Clark and I believe is not as common as perhaps it should be. But we are correct, and he is mistaken about the historical fact.

"set the political and social environment." The environment is influenced by, but nothing like "set," by the formal rules.

Ask then which of Mokyr's Ten, or which parts of them, work exclusively through the budget lines. Answer: none. They all depend heavily on what economists would call preferences, and what normal people would call ideas, spirit, ideology, ethics, identity, the tales your mother told you.

Mokyr's Ten of "important institutions" making for the Great Enrichment are:

1.) "Economic liberty and mobility." But here "liberty" is precisely the ideology of economic liberalism, letting people have a go in the economy, which is the ***I*** causing innovism. It is Deng Xiaoping's "To get rich is glorious." China achieved stunning economic growth, ***G*,** not all of it imitative, *despite grossly violating eight of the remaining nine Mokyr's Ten* (all except 4: Effective supply of public goods, though massively overinvesting in a great many of them, such as high speed rail). It makes one wonder what the Ten are all about, if as the Chinese case shows, letting people be at liberty, pretty much, in the economy, yet making them coward slaves in every other way, suffices for growth. It makes one think, I would suggest, that neo-institutionalism is an empty shell of pleasing jargon.

That Mokyr pairs mobility with liberty here suggest that he thinks of liberty merely a freedom of movement, and not the core inspiration for innovism. He is falling back again on allocation. Mobility is a negative institution, so to speak, like the Chinese permit system making it legally impossible for people to move with full rights. And yet the largest migration in human history took place in China in the 1990s and 2009s, with 200 million people moving to the coastal provinces. By contrast, the old Poor law, which Mokyr views as a Good Thing, worked against labor mobility in England.

2.) "Relatively free (but not unregulated) markets." Why Mokyr favors "regulated" markets is not clear, even for allocation. He must know that regulation usually favors the powerful, who after all run the state. He must also know (because I partly learned it from his writings) that regulation was, and still is, fiercely anti-innovism.

3.) "The rule of law (property rights, contract enforcement)." This is the favorite of conservatives, who want Order over Progress every time. As a cause of England's enrichment it has the problem I have mentioned, that England already had it, with time out for the War of Roses, say, for eight centuries and before. The rule of law, after all, is what one means by a "society."

4.) "Effective supply of public goods." Thus "internal improvements" in the United States such as canals in the 1830s which mostly proved useless—yet whose bonds were guaranteed by state government, quite unlike the wholly private financing of British canals forty years earlier.

5.) "Civil society: low rent-seeking and corruption." England was host to the Old Corruption well into the 19th century. Again, Parliamentary enclosure provides an example: MPs were openly paid off for arranging to override the common law of property. Mokyr himself notes the wretched way the patent system worked. And the US of A was splendidly corrupt ("To the victor, the spoils"; "I seen my opportunities, and I took 'em"), yet spectacularly successful in its economy.

6.) "Open economy." The Corn Laws, for example? Mokyr admits that public policy, such as the Navigation Acts of the late 17th century aimed at the Dutch, vigorously enforced during the 18th, were frankly mercantilist—until in the middle of the 19th century, a century after the beginning of the "industrial revolution," the UK changed its ideology.

7.) "A balance of power and constraints on the executive." As in China now? Or for that matter, France at any time since Colbert? Or the German Empire?

8.) "Tolerance of dissent and 'others.'" Unless it is an aspect of economic liberty, as for example in the (uneven and sometime temporary) toleration of Jews it was, it is hardly relevant to ***G.***

9.) "A free and open press." A Good Thing, and it does have a role in creating the ideology of liberty. But Mokyr does not perhaps know that in the 1790s half of the many hundreds of newspapers in Britain were secretly owned by the government. Real freedom of the press came with steam printing and long press runs and therefore advertising revenue.

10.) "Human rights and social justice." Another very Good Thing, but again unless it is an input, into economic liberalism and its innovism, as "human rights" surely are and "social justice" often is decidedly not, it is irrelevant to the Great Enrichment—except as a consequence of the enrichment of ordinary people.

Consider, for an extended example, an institution that undoubtedly did encourage innovative growth by a route more significant than its direct effect of a little more allocative efficiency—a large free-trade area. Mokyr again falls back into static arguments of efficiency when he says of Britain that "by eschewing raising revenue through internal tariffs, the British were able to benefit from growing regional specialization and gains from (internal) trade. These gains expanded considerably in the eighteenth century. " [12] No. A large free-trade area achieves a large growth, ***G*** by its political economy, not by allocative economics. In a large free-trade area the local vested

[12] Mokyr 2021.

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 joker in the pack," wrote Eric Jones in speaking of the decline of guild restrictions in England, "was the national shift in elite opinion, which the courts partly shared":

> The judges often declined to support the restrictiveness that the guilds sought to impose. . . . As early as the start of seventeenth century, towns had been losing cases they took to court with the aim of compelling new arrivals to join their craft guilds. . . . A key case concerned Newbury and Ipswich in 1616. The ruling in this instance became a common law precedent, to the effect that "foreigners," men from outside a borough, could not be compelled to enrol.[13]

The large free-trade area was expressed in black-letter law in the US 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 an area as large as the world. Customs unions supported by a 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 the Great Divergence shows that a large free-trade area does not suffice for ***G*** at the level of the Great Enrichment—until economic liberalism came to China after 1978 (as it had earlier, but temporarily, after 1911).

In other and earlier places outside the Anglosphere, by contrast, local monopolies unchallenged by wide competition surely did discourage innovative growth, which is to say that in this case 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 prohibitions of branch banking (loosening in recent decades) have had such a source.

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[13] Jones 2010, pp. 102–103.

Among elites in the UK during the early 19th century, a strong ethical conviction, ***I***, came to prevail 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."[14] In the US at the time such a conviction was, to put it mildly, less strong, 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 mistaken, 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, radically, measurably, 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."[15]

And the crucial economic point is that ideas are intrinsically subject to extraordinary economies of scale and can therefore yield dynamic effects of a magnitude well 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, often obstructive, and subject in their further accumulation to sharply diminishing returns. Increasing the accumulation of power over the economy of the institution of, say, the US Congress or the Presidency may not be such a good idea for growth. And institutions are usually designed to be conservative. And further, to repeat, 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

[14] Mill 1859 (2001), pp. 86–87.

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

percent or 10 percent. The resulting oomph is miles away, scientifically speaking, from the Great Enrichment we are trying to explain.

The less committed of the neo-institutionalists, such as Mokyr and John Nye, seem to believe in the North–Acemoglu pre-judgment that $\boldsymbol{N} \rightarrow \boldsymbol{G}$ on odd days of the month. This less-committed group calls ideas "culture," a ***C*** to be brought into the story on the 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, myths, stories, rhetoric, ideology, metaphors, ceremonies, and the like since the Greeks, the Talmudists, or the Sanskrit grammarians.

Read and reflect.

§

Understanding institutions as routine, like capital accumulation, 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 such a routine is the routine Leontief 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 is called "structure." The neo-institutional economist's parallel generalization is the routine institution, 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 = $\boldsymbol{A} \bullet \mathrm{F}(\boldsymbol{K},\boldsymbol{L})$ the point was that F is the routine about which the marginal-productivity theory of the 1870s can speak. The ***A*** is the novelty which can be therefore measured from marginal productid theory as a residual—what Moe Abramowitz called "a measure of our ignorance." About the deep sources of **A** the economist agrees with the young Wittgenstein: "Whereof one cannot speak, 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'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."[16] Bizarrely, however, the behavioral economics strides past the market innovations, themselves ideas from human minds, such as Marshall Field's department

16 Veblen 1898.

store, or Angie's List, or costumer education, or spiritual direction, that can and often do improve upon the imperfections of our cognition. And bizarrely, too, neo-institutionalism adopts with enthusiasm a solely reactive and un-creative Mr. Max U, as in a non-cooperative game theory—a theory falsified repeatedly by economic experiments and the Ostrom-Klamer conversation, failing to grasp that ethical education can and routinely does solve prisoner's dilemmas, and failing even in logic: finite games unravel and infinite games have infinite solutions. Some theory.

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 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 could now 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 shifts from ambrosia to fodder. The Swedish recipe and its Swedish makers are not created equal to the Danish. The necessary conditions featured in neo-institutionalism are commonplaces, like sunlight or property rights or tomatoes for *sauce tomate* or flour for Danish pastry. In explaining innovism we need a scientific study of sufficient creativity and its conditions.

Mainly personal ethics—not mainly pubic law—holds societies together. Observe that not one of the old law-abiding societies yielded modern economic growth until during the 18th-century in Britain and its North American colonies the ancient and commonplace routine of reasonably good laws was mixed for the first time in an agricultural society with an entirely new idea—a liberalism of egalitarian permissions (not equality of "opportunities," which is unattainable among people with varied graces; nor equality of resulting incomes, which is economy-wrecking among people with normal incentives). It happened first in Dutch cities, anticipated in fact in northern Italy and the Hanseatic League, and then was theorized in French salons, and then was applied comprehensively in the Anglosphere.

The liberal releasing of human creativity has sufficed for growth, given the routine and necessary and helpful conditions, given very widely—*pace* North, Wallis, Weingast, Acemoglu, Robinson. 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, 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, Persian, Egyptian, and Assyrian states before. Yet, I note again (are you listening?), they did not achieve the Great Enrichment emerging from a Dutch-influenced and liberalizing England around 1700, and spreading after 1776 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 1776 yet another weakly necessary condition. Canals. Science. Banks. Coal. Tomatoes.

§

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 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. 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 Whites, especially the Dutch-derived Afrikaners, of having Black people enslaved, and later the Black and colored people anyway subordinated to an illiterate Afrikaner up on a horse. Then, 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 these 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 of the soil, but of the soul, not only about the incentives, but about the ethics, *les moeurs*, *die Geiste*, the ideologies of elites and then of ordinary people. As 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 and 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, lead to *institutional* 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 Mama 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 skirt 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 sometimes 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 think to desire to avoid the worst of Leviathan, 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 liberals 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 political theory advocates: socialism, communism, fascism, nationalism, syndicalism, theocracy social democracy.

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, such an epistemological 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 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." Goody for you.

When they turn to causes, material "structure" and game theory rule, not human ideas. Acemoglu and Robinson along with other neo-institutionalists 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. (Yet many Austrian economists are bewitched by neo-institutionalism, which leaves them advocating for Leviathan, and violating their core beliefs in human action and spontaneous order.)

§

Some ideas are bad—most of them, actually, or business and art and science would streak ahead at rates not observed. Neo-institutionalism is such an idea. Yet in conditions of liberal free entry and exit the great number of ideas is fairly harmless, even helpful. In intellectual life we need to worry about mindless fashions enforced by Leading Thinkers. But not in a liberal economy. 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. Dog treats. Each year tens of thousands of new products are tried out in US grocery stores, only a few score of which succeed.

But some large-scale ideas are bad to the point of misery, a stock around for a long time. Most state institutions, as against free-entry innovism, are of course long-lived even when the idea inspiring them is a bad one. The old doctrine in English common law of femme couverte, under which married women could not own property, was another bad 'un. The Anglo-French Concorde, which is praised for example by Marianna Mazzucato in her 2012 book, is a small case in point. It never justified its expense. Central planning, to take a big and persistent and infantilizing economic idea, widely implemented after 1917 and especially after 1945, proved to be an exceptionally bad idea. 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 productivity came from the rising yield of the cotton plant before the Civil War, which came out of the idea of selective breeding. One might expect the idea would have been applied whether or not some proportion of the South's cotton crop came from large plantations, or whether or not there was slavery at all. Ideas sufficed for enrichment.

§

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 done here for example—does not complete the scientific task (though it gets it properly started: all science must start with an initial humanistic question and categorization). Robert Margo a few years ago said wisely 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 did 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 stuff without measurement plays merely with 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 always empty, of use only in getting measures by residual of the real, ideational causes. One cannot but agree with Mokyr of that point: "There is no substitute for measurement in testing even in this area. The challenge for future research is quantifying institutions, and even harder, to understand how and why some countries end up with one set of institutions as opposed to another."[17]

Let us, in short, stop offering tomato theories of French cuisine.

[17] Mokyr 2011, penultimate slide.