Comparative Law and the Legal Origins Thesis:
“[N]on scholae sed vitae discimus”

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This essay offers some suggestions for comparative law’s discomfort with the Legal Origins Thesis. The Legal Origins Thesis then becomes the point of departure for a discussion of contemporary comparative law’s “existential angst.”

Introduction

In 2002, Thomas Dawson, the head of External Relations for the International Monetary Fund (IMF), gave a speech to the MIT Club of Washington in which he mocked Joseph Stiglitz,
former Chief Economist at the World Bank and Nobel laureate in economics.\(^1\) Stiglitz had criticized both the World Bank and the IMF as institutions whose policies heighten poverty in the developing world, rather than reduce it.\(^2\)

Dawson told an anecdote about John Maynard Keynes in which Keynes is reputed to have berated a journalist in the following terms: “When I get new information, I change my opinions. What, Sir, do you do with new information?”\(^3\) Dawson went on to say that Stiglitz, for all his academic brilliance, had neglected to reevaluate academic theories that undervalued free markets, despite glaring evidence to the contrary in the form of recent collapses of centrally planned societies and the success of market economies.\(^4\) Today, only a few years after the speech, Dawson’s dig at Stiglitz might be expected to produce a very different effect on an audience. Yet even the recent cataclysmic financial events in the world’s freest and least regulated markets perhaps should not be taken as a final answer, since disaster seems to have shown itself to be an equal opportunity lender over time towards both centrally planned and free market economies. Without analyzing events within “the long sweep of history,”\(^5\) one falls into the erroneous logic of what historian Fernand Braudel called “event history” (“l’histoire événementielle”).\(^6\)

The infinite variables of context defy analytical mastery of social, legal, and economic phenomena. Reducing variables for purposes of study is indispensable for analysis to occur. On the other hand, without vast numbers of variables encompassed in the set of givens, results


\(^{3}\) Id. (emphasis added).

\(^{4}\) See id.

\(^{5}\) See infra notes 20-22, and surrounding text.

\(^{6}\) See Fernand Braudel, Histoire et Sciences sociales La longue durée, 13 ANNALES E.S.C. 725, 728 (1958).
cannot be reliable. It has been pointed out that economic models entice by appealing to the longing for certainty, “the hope [that it may be possible] to resolve, once and for all, existing questions . . . .”

Empirical studies, statistical formulae, quantification in general, suggest the sort of rigor of analysis and concomitant confidence of result that the seventeenth century mathematician-jurist Samuel Pufendorf (who also incidentally has been called “the grandfather of modern economics”8) sought to give law by developing a complex, mathematically organized system of jurisprudence.9

Comparative law has had a different focus. The modern comparative enterprise has come far in a struggle to accept inevitable imprecision, to admit to its own fuzziness born of intuition and insight.10 It has come so far in this struggle that at times it even may be said to embrace those attributes. If it does so, this may be because comparative law is used to thinking in terms of millennia, of being a field in which some still care whether Roman law interpolations occurred only at the time of Justinian’s codification or if modifications of Roman legal texts also were common from the third through sixth centuries.11

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9 Pufendorf studied mathematics at Jena under Erhard Weigel, whom the American Mathematical Association’s Mathematics Genealogy Project lists as having had ten students in his lifetime, and, in the more than 350 years’ time since he received his own Ph.D. in 1650, as having had 57,709 mathematical Ph.D. “descendants.” See Mathematics Genealogy Project, available at http://genealogy.math.ndsu.nodak.edu/id.php?id=60984 (last visited Apr. 14, 2009). For more on Pufendorf and economics, see also Jeffrey T. Young, Law and Economics in the Protestant Natural Law Tradition: Samuel Pufendorf, Francis Hutcheson, and Adam Smith, 30 J. HIST’Y OF ECON. THOUGHT 283 (2008).
The Legal Origins Thesis (“Legal Origins” or “LLSV”\(^\text{12}\)) contrasts countries with common and civil-law origins, correlating common-law origins with conditions more propitious to freer, less regulated markets, and greater economic well-being.\(^\text{13}\) Comparative law to date largely has ignored or rejected LLSV, developed and promulgated by economists, but LLSV has been influential both practically and in other academic fields.\(^\text{14}\) In particular, the International Finance Corporation, a member of the World Bank group,\(^\text{15}\) has ranked countries in accordance with LLSV ideas, and caused them to engage in domestic regulatory reforms.\(^\text{16}\) European Union reforms similarly have been based on Legal Origins work.\(^\text{17}\) LLSV have paid comparative law the tribute of reading comparative law scholars who write about the importance of origins, of


\(^\text{15}\) See http://www.ifc.org.


of social outlooks shaped by the crucible of its experiences together. The many different communities within a nation share innumerable historical phenomena, such as military invasions, occupations, natural disasters, officially enacted laws, etc., such that, however differently the various communities may have been affected by and reacted to events and institutions, nevertheless they all were part of the country, and thus shared much, even as they were separated by much. This may be what my co-panelist Curtis Milhaupt has in mind when he alludes to the importance of the “long sweep of history,” an excellent translation of “la longue durée,” Fernand Braudel’s famous phrase for the Annales’ object of study. Braudel’s goal was to try to enlarge the scope of historical studies to encompass the whole of experience.

*La longue durée* also is precisely what LLSV so startlingly omit from their analysis of alleged “legal origins.” Concentrating on confined time spans enhances the accuracy of data but not of conclusion: comparative law does not exist fruitfully without history, and history is

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18 For instance, La Porta and his colleagues cite such comparatists as John Henry Merryman and Mirjan R. Damaška. La Porta et al., Economic Consequences, 46 J. ECON. LIT., at 289, 303, 304 (citing Merryman) and 286, 305 (citing Damaška).


21 Braudel, supra note 6.

22 See id. at 729, 734.

23 See La Porta et al., Law and Finance, supra note 12; but see La Porta et al., The Economic Consequences of Legal Origins, id.
neither linear nor static, but a back and forth, a *va-et-vient*, in which origins do not disappear, in which they color and influence and speak, like a palimpsest that may fade and grow indistinct without being erased. Yet, although they linger, the effect of origins nevertheless changes at each moment in time, and at some moments more rapidly and dramatically than at others. As Braudel pointed out in his seminal article on historical method, the scientific method, seeking to simplify in order to elucidate, can end by erasing meaning and significance through reductionism.24

 Origins contribute to what we are, “a collection of moments, even though these flow into one another like [a] . . . river.”25 They are linked to collective memory, a term used by and associated with the French sociologist Maurice Halbwachs.26 Halbwachs was a friend and colleague of Marc Bloch, one of the founders of the 1920’s *Annales d’histoire économique et sociale*, a journal later edited by Braudel.27 Halbwachs was virtually alone in the 1930s in conceiving of collective memory independently of biologically or genetically transmissible characteristics.28 Collective memory, key to *l’histoire des mentalités*, exercises a significant formative influence, as Aleida Assmann has pointed out, also on cultural *constructions* that will impact the formation of a society’s *future* collective memory.29 Both Aleida and Jan Assmann have built on Halbwachs’ concept by stressing the ongoing transformative and regenerative capacity of collective memory: “True, [collective memory] is fixed in immovable figures of memory and stores of knowledge, but every contemporary context relates to these differently,

24 Braudel, *supra* note 6, at 752.
sometimes by appropriation, sometimes by criticism, sometimes by preservation or by transformation.”30 Indeed, one function of collective memory is precisely to permit rupture with the past.31 Legal origins, and their significance, cannot be apprehended with a bird’s eye view.

Existential Angst: Where does Comparative Law Stand Today?

Criticisms of LLSV have been plentiful, as Ralf Michaels’ account in this volume describes.32 LLSV’s success in attracting academic attention and its powerful adherents in international funding and credit institutions made close scrutiny inevitable. After the April 2009 meeting of the Group of 20 reflected an agreement by the world’s wealthiest nations to contribute an additional 750 billion dollars to the IMF, the fund said it would be awarding credit in the future with fewer fiscal demands than it had imposed in the past.33 IMF and World Bank policy tend to go hand in hand.34 How the new policy will affect the IMF and World Bank’s continuing to formulate economic criteria and conditions around LLSV remains to be seen. For the moment, the practical impetus to assess LLSV’s validity remains compelling. Yet the AALS panel questions relating to LLSV, which each of us contributing to this volume was asked to consider, touch on other issues of relevance to comparative law, such as the reasons for our field’s deep-seated discomfort with LLSV, our long-time aloofness from law and economics, and

30 Assmann, supra note 28, at 130.
31 See id. at 133.
33 See Landon Thomas, Jr., Known for Tight Spending, I.M.F. May Have to Loosen Reins After G-20 Windfall, N.Y. TIMES, Apr. 5, 2009, at 12. See also Milhaupt, supra note **, quoting World Bank, Economic Growth in the 1990s: Lessons from a Decade of Reform 26 (2002) (“those who advise or finance developing countries will need more humanity in their approaches, implying more empathy with the country’s perspective and more inquisitiveness in assessing the costs and benefits of different possible solutions”).
whether economics, with its greater policy influence in today’s world, augurs the end of comparative law altogether.35 In other words, LLSV seems to reveal that comparative law may be in the throes of a certain amount of existential angst.

The field is getting its bearings in a world where the fast pace of change includes the pace of change in law. Transnationalizing forces are subjecting law to many kinds of border crossings,36 the most imperceptible of which are unofficial. The explosion of change is causing a normal reassessment of comparative law’s place in the world.37 Opinions vary greatly even within the profession, a fact which may not be entirely surprising if one considers that the field has not decided if it is a substantive area or a methodology or, in the words of one of its most renowned practitioners, even if it exists at all.38 A comparatist of skill and talent recently has written that, in his view, comparative law is fast becoming useless in a globalized world.39

Others, including myself (I hope it is not the hubris of thinking one’s own field more important than justified), believe that comparative law is more essential today than ever before. This is mainly because the world, and the world of law in particular, have become blurred and hybrid in ways that challenge recognizable categories with new intensity, like a language that finds itself undergoing not just a rapid acquisition of foreign words and expressions, but also of foreign syntactical structures. New fault lines and fragmentations are occurring, just as old

37 Three major books on comparative law have been published in the last few years: COMPARATIVE LAW: A HANDBOOK (Esin Örüçü & David Nelken eds., 2007); THE OXFORD HANDBOOK OF COMPARATIVE LAW (Mathias Reimann & Reinhard Zimmermann eds., 2006; COMPARATIVE LEGAL STUDIES: TRADITIONS AND TRANSITIONS (Pierre LeGrand & Roderick Munday eds. 2003).
38 ALAN WATSON, LEGAL TRANSPANTS: AN APPROACH TO COMPARATIVE LAW 1 (1993).
distinctions are fading in significance.⁴⁰ Yet at the same time, the past configurations leading to
the new formations have not disappeared, such that comparatists who have a sense of the
contexts and of the complexities lurking unseen behind the new turns in the roads will be able to
facilitate discovering and understanding newly confusing hybridities by shedding light on
dissociations, re-associations, and correlations.⁴¹

A French philosopher wrote that “all access to the real is by encounter.”⁴² The brilliant
German-British comparatist Otto Kahn-Freund, observed that a very great amount of encounter
is required before cross-contextual or polycontextual⁴³ understanding will occur.⁴⁴ As seasoned
translators in the figurative sense,⁴⁵ comparatists should be well positioned to facilitate effective
communication among those who may have much in common substantively within the
transnational functionalist alignments that have been gaining ever greater importance, but among
whose members communication gaps remain.⁴⁶ Finally, comparatists should be optimally
situated to assist in constructing polycontextual mechanisms and institutions of law.

The status of comparative law has been rising in some visible ways. The Court of
cassation, the private and criminal law Supreme Court of France, has included a comparative law

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⁴⁰ The common law-civil law divide is one such example, given that today “we all live in a mixed jurisdiction.”
David V. Snyder, Contract Regulation, With and Without the State: Ruminations on Rules and Their Sources. A
Guiseppe Monateri for the proposition that this always has been the case. Id. at 138, citing P.G. Monateri, The
“Weak” Law: Contamination and Legal Cultures, in ITALIAN NATIONAL REPORTS TO THE XVTH INTERNATIONAL
⁴¹ For the contrary view that comparatists precisely are not those best suited to this task, see Siems, supra note 17, at
146.
⁴³ I take the word “polycontextual” from Gunther Teubner’s term “polycontexturality” in Gunther Teubner, State
⁴⁴ See Mark Freedland, Otto Kahn-Freund (1900-1979), in JURISTS UPTOOTED, supra note 11, at 314, quoting O.
⁴⁵ See François Ost, Le droit comme traduction (manuscript on file with author); FRANÇOIS OST, TRADUIRE:
DÉFENSE ET ILLUSTRATION DU MULTILINGUISME (2009); Vivian Grosswald Curran, Comparative Law and
Language, in OXFORD HANDBOOK OF COMPARATIVE LAW, supra note 37, at 675.
⁴⁶ For the idea that globalization has meant the realignment into functionalist spheres, see, e.g., ANNE-MARIE
SLAUGHTER, A NEW WORLD ORDER (2004); NIKLAS LUHMANN, LAW AS A SOCIAL SYSTEM (Klaus A. Ziegert trans.,
working group for several years in recognition of the importance of the field to its work.\textsuperscript{47} It also requests comparative law studies from academic or research institutions on matters of great significance.\textsuperscript{48} Transnational judicial contacts and increased official recognition of the importance of comparative law are on the increase in many parts of the world.\textsuperscript{49} Similarly, Justice Breyer of the U.S. Supreme Court asked the law schools of the United States to teach more foreign and comparative law to their students, so that the next generation of lawyers will be able to teach it to United States judges through the briefs they write to domestic courts.\textsuperscript{50} Even Justice Scalia has argued that

\begin{quote}
I do believe … comparative law might indeed well be made a mandatory subject in United States Law schools, because I believe that, just as you do not understand your own language until you have taken some foreign language—be that Latin, German, whatever—so also I think you don't understand your own legal system until you see how ordering of the same matters could be done in a different way.\textsuperscript{51}
\end{quote}

Many law schools are considering how to introduce more comparative law into their curriculum, whether by way of new courses or of new comparative elements in domestic law courses. McGill Law School changed its curriculum a number of years ago with the objective of

\textsuperscript{47} Remarks of Guy Canivet, then Premier Président de la Cour de cassation, given at Yeshiva University’s Cardozo Law School, 2007 (author’s personal notes); more generally, for published comments on the Court of cassation’s embracing comparative law techniques, see Guy Canivet, \textit{The Court of Cassation: Looking into the Future}, 123 L. Q. REV. 401, 410 (2007).

\textsuperscript{48} Guy Canivet, \textit{L’Influence de la comparaison des droits dans l’élaboration de la jurisprudence}, in \textsc{ÉTUDES OFFERTES AU PROFESSEUR PHILIPPE MALINVAUD} 133, 139 (2007).


\textsuperscript{51} \textit{International Law in American Courts}, from \textsc{Speeches of Justice Scalia, Ninoville}, at http://www.joink.com/homes/users/ninoville/aei2-21-06.asp.
offering a cosmopolitan legal education that is transsystemic, including both bilingual and bimethodological. Its students and professors are doing comparative law every day without necessarily knowing it, like M. Jourdain in Molière’s play who was surprised to discover from his fancy tutor one day that all along he had been speaking prose.

Why then existential angst? Certainly there is frustration about what many comparatists view as comparative law’s misappropriation by economists, whether by LLSV or World Bank economists. Misappropriations, misuses, mistakes, and incomprehension are, moreover, relevant to an issue of importance for legal education today in particular, as law schools considering curricular change must decide whether to opt for foreign law components in domestic legal courses, to be taught by faculty unfamiliar with and unpracticed in comparative law. Is comparative law an undertaking only for specialists? Alternatively, is it preferable for as many faculty members as possible to engage in comparative legal analysis?

There is perhaps a source of deeper concern that LLSV evokes for comparatists today, however. I am hardly the first to note that LLSV’s division between common- and civil-law is problematic. It is interesting to note that it seems not so very long ago that the proponents of just that difference were innovators in comparative law. Particularly in the United States, where the tradition of comparative law had taken root thanks to the generation of émigrés, the

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53 See Molière, Le Bourgeois Gentilhomme Act I, Scene 6 (1670) (“Par ma foi! il ya plus de quarante ans que je dis de la prose sans que j’en susse rien” [“Upon my word! I have been speaking prose for more than forty years now without having the slightest idea of it!”]).


55 See, e.g., Simon Deakin, Legal Origin, Judicial Form and Industrialization in Historical Perspective: The Case of the Employment Contract and the Joint-Stock Company, 7 Socio-Econ. Rev. 35 (2009); Siems, supra note 32; Milhaupt, supra note **.

56 See Curran, Cultural Immersion, supra note 19, at 68-71.
successor generation started to accentuate theories of difference, and stressed in particular the
differences separating the common and civil-law worlds.

The human catastrophe of the 1930s and 1940s caused a return to natural law theories
after the Second World War, a movement of reversal in the trend away from natural law that had
been taking place. It has been argued that “existing scholarship has tended to underestimate the
role of anti-totalitarianism in postwar judicial doctrine and to ignore the influence of
totalitarianism on contemporary constitutional theorists.”57 I have argued elsewhere that the rise
of Hitler had a particularly important influence on post-war comparative law, both in Western
Europe and the United States.58 It is against the backdrop of a universalist outlook that the post-
émigré generation focused on difference. This was not, at least not by all such legal comparatists,
in order to espouse an ideology of difference,59 but rather to develop a methodology for
replicating practices the émigrés had employed thanks to individual skills often not articulated
theoretically.60

Yet, no sooner had these directions been established, and mainstream comparative law
had started to take it as self-evident that laws could not be compared in isolation from a panoply

58 See Curran, Cultural Immersion, supra note 19.
59 This term is Professor Sacco’s. Rodolfo Sacco, Diversity and Uniformity in the Law, 49 AM. J. COMP. L. 171, 180 (2001). Professor Sacco referred to my own work in this area as espousing an ideology of
difference, in Cultural Immersion, supra note19, an article which, however, as its title suggests, specifically
addressed the situation of comparative law in the United States and from the vantage point of the crisis for
comparative law within the country due to the loss of the generation of multicultural, multilingual émigré
comparatists. In the case of some comparatists, the description may be justified, however. For instance, Pierre
Legrand writes:

I argue in favour of incommensurability as the radical absence of common ground between different
orders of legal knowledge. “Common ground,” any “common ground,” must assume a metalanguage;
but the empirical fact is that there is no metalanguage that can dispense with idiomaticity. What there is
across laws, and all there is, is an abyss—an untranslatable abyss. For me, comparison is thus the site of
a problem, rather than a solution.

60 See Vivian Grosswald Curran, On the Shoulders of Schlesinger: The Trento Common Core of European Private
of contextual societal factors, than already the times had changed. Thus, in 2002, Mathias Reimann wrote that comparatists “realize that we need to consider rules in context within the existent procedural and institutional frameworks, and . . . also within their socio-economic and cultural environments . . . [T]oday, every self-respecting comparative lawyer can be expected to know [this].”61 But hard-won battles for method were becoming inadequate even as this transition was solidifying. Accordingly, in a recent article, Michaels states: “We comparative lawyers badly need more methodological foundations . . . .”62

As the world changes, comparative law may need to go beyond even new method, and even beyond understanding that method will change as substance changes, that the first is no more time-resistant than the subjects of study. Yet methodological contingency itself is a most difficult pill to swallow for legal comparatists, for if methodology is not the polestar in the eternal shifts in substance, vocabulary, and significance, the field itself may be too mercurial to warrant being taken seriously, or even to staking credible claims to be taken seriously. Nevertheless, comparative law may need to reinvent itself in order to be adequate to the tasks of elucidating and affecting polycontextual law. It also may need to reinvent itself on an ongoing basis. This may be because the comparatist at the end of the day has a job that inescapably depends on judgment and on the ability to improvise. From the eighteenth century onwards, methodologies have been sought for fields in the social and political sciences, so that “judgment need never again be a matter of instinct and flair and sudden illuminations and strokes of

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unanalysable genius; rather it should henceforth be built upon the foundations of indubitable knowledge."\(^{63}\)

The issue remains as to how many laws and rules apply to comparative legal analysis, and whether knowledge in our field can be advanced by applying “proven methods to new subject-matter in co-operation with others working as a team (as in some of the natural sciences) or simply for the purpose of providing material for some more powerful or imaginative mind. . . .\(^{64}\) For instance, in analyzing the nature of progress in philosophy, Isaiah Berlin contrasted the linear progress that is the hallmark of natural sciences to philosophy’s characteristic of consisting “those problems which are not soluble by the application of ready-made techniques.”\(^{65}\) Comparative law, like philosophy, may need in each generation “a new language in terms of which the old problems dissolve, and new problems in due course come into being.”\(^{66}\)

How is this to be done? According to Berlin, it is a liberation “from the incubus of an entire system of symbols—and it is scarcely possible to distinguish symbols from thoughts . . . [it is] shak[ing] oneself free of [an] obsessive framework”\(^{67}\) of rigidified, ossified thinking that no longer befits the order of the day. And

the new construction, if it is created by a man of creative as well as destructive talent, has an immense and liberating effect upon his contemporaries, since it removes from them the weight of a no longer intelligible past, and a use of language which cramps the intellect and causes the kind of frustrating perplexity which is very different from those real problems which carry the seeds of their own solution in their formulation. The new system, born of an act of rebellion, then becomes a kind of new orthodoxy, and disciples spring up . . . to apply the new technique to provinces to which the

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\(^{64}\) Id. at 60.

\(^{65}\) Id. at 63.

\(^{66}\) Id.

\(^{67}\) Id.
original man of genius had perhaps not conceived of applying them. This is sometimes successful, and sometimes leads to a new and equally arid and obfuscating scholasticism.68

This in turn will create the need for a new language to meet the realities of a new day.

Our field just now may be undergoing the temptations of a “politics of re-definition”69 of self to maximize the enhanced role that universal acknowledgment of globalization may allow comparative law to claim.70 Yet, it is really a “policy of re-definition” of self that may be needed, more precisely: a policy of ever-renewed definition

Conclusion

A poet of the French resistance, René Char, believed that poets are those who can show others how to stand up straight.71 Unlike those who have a more comfortable niche in society, he believed that poets know how to adapt to the surprises of the earth, a task his generation sorely needed as it saw the unpredictable’s primacy over the predictable.72 Comparatists also aspire to adapt to the surprises of the earth, to the unexpected and the unseen.

This is a broad aspiration, but, as Clifford Geertz reassuringly said about anthropology, it does not mean that it is “necessary to know everything in order to understand something.”73 It does, however, go some way towards explaining why, still in Geertz’s words, comparatists for the most part have sought to steer clear of “purif[ying facts] of the material complexity in which

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68 Id. at 62.
70 Cf. id., in which Koskenniemi imputes such a motive to international law.
71 For Char’s view of the role of the poet, see generally RENÉ CHAR, FUREUR ET MYSTÈRE 65-81, 85-149 (2d ed., Gallimard, 1967) (1962); on the more specific idea of Char’s conceiving of the the poet as the man standing upright, see Vivian Grosswald, L’Homme debout dans la poésie de René Char (unpublished manuscript, 1973).
72 See id.; Vivian Grosswald Curran, La sécurité juridique à l’ère de la mondialisation, 110 REVUE DU NOTARIAT 311, 313, n.5 and surrounding text.
73 GEERTZ, supra note 10.
they were located . . . , and then attributing their existence to . . . a priori weltanschauungen.”

To do so is “to pretend a science that does not exist and imagine a reality that cannot be found.”

It has been said that law and economics can be a bona fide part of comparative law, and vice versa, and that an economic method, if better developed than existing ones, would hold promise for comparative law. This short essay does not purport to respond to either of those views, but to offer a different sort of suggestion, originally made several hundred years ago, that contains perhaps a thought which, after all, can transcend time and its vicissitudes: “[T]he world is not to be narrowed until it will go into the understanding . . . but the understanding is to be expanded and opened until it can take in the image of the world . . . .”

74 Id.
75 Id. See also BERLIN, supra note 63, at 48-9 (“not everything, in practice, can be—indeed . . . a great deal cannot be—grasped by the sciences. For, as Tolstoy taught us long ago, the particles are too minute, too heterogeneous, succeed each other too rapidly, occur in combination of too great a complexity, are too much part and parcel of what we are and do, to be capable of submitting to the required degree of abstraction, that minimum of generalisation and formalisation—idealisation—which any science must exact . . . Natural science cannot answer all questions.”).
77 Michaels, supra note 62.
78 FRANCIS BACON, PREPARATIVE TOWARDS A NATURAL AND EXPERIMENTAL HISTORY, IN COLLECTED WORKS OF FRANCIS BACON: VOLUME IV: TRANSLATIONS FROM THE PHILOSOPHICAL WORKS, 255-56 (John Spedding et al. eds., 1976, reprint of the 1875 edition). I am grateful to Professor Freeman Dyson for introducing me to this passage and directing me to its source.