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EMPIRICISM, EXPERIMENTALISM, AND CONDITIONAL THEORY

Victoria Nourse* Gregory Shaffer**

ABSTRACT

The New Legal Realism movement has proliferated through the American legal academy but with very diverse strands. In this article, we examine empiricism (reflected in the empirical legal studies movement) and experimentalism (reflected in the new governance movement) as two complementary strands of New Legal Realism. We assess their virtues and potential vices if empiricism and experimentalism are not combined to inform each other. There is a tension between empiricism and experimentalism, as one looks to the past seeking to understand and explain phenomena, and the other looks to the future to reconfigure regulatory schemes. In practice, one tends to take "hard law" as its object, and the other recommends "soft law" because of its revisability. We argue that this tension can be productive for overcoming the challenges of each strand and we offer a theoretical resolution, one which takes the best from each practice in service of an approach that is not model-driven, but problem-centered, that seeks in its claims to science not a claim of final authority but one of discovery and willingness both to work within and challenge received wisdom. We offer two concepts by which to assess the success of a new legal realism: "emergent analytics" and "conditional theory." These two concepts bring empiricism and experimentalism together. We reject in particular radical skepticism of formal law, to which both movements could be prone, and contend that new legal realism must closely engage with formal law's conditional role in a dynamically changing world.

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A number is always hovering over something beneath it. It is invisible, but you can feel it

-Jorie Graham, Cagnes Sur Mer, 1950¹

I. INTRODUCTION

N 2009, in an article entitled Varieties of New Legal Realism,² we identified and surveyed variations in the American phenomenon known as "new legal realism." At the time, over 300 law review articles had cited the term "new legal realism"; now there are over 500.3 Then, we noted the extraordinary diversity of scholarship claiming the mantle of new legal realism—from behavioral economics to empirical legal studies, from ethnographic qualitative research to large-N quantitative studies, and from new governance to philosophical naturalism.⁴ We offered a taxonomy of approaches—behaviorist, contextual, and institutional—and we argued that new legal realism, was in many ways, a reaction to the "formalism" of neoclassical law and economics.⁵ This effort

^{1.} JORIE GRAHAM, PLACE 33 (2012).

^{2.} Victoria Nourse & Gregory Shaffer, Varieties of New Legal Realism: Can a New World Order Prompt a New Legal Theory?, 95 CORNELL L. REV. 61, 61 (2009).

3. Based on a WestlawNext search for "new legal realism" in the law review secondary source database; the precise number is 530 citations as of January 16, 2014. This obviously undercounts usage of the term as it appears on the internet and in books.

^{4.} For a set of examples from action studies to new governance to behavioral economics to quantitative empirical studies claiming the title of new legal realism, see Daniel nomics to quantitative empirical studies claiming the title of new legal realism, see Daniel A. Farber, Toward a New Legal Realism, 68 U. CHI. L. REV. 279, 302–03 (2001) (reviewing BEHAVIORAL LAW AND ECONOMICS (Cass R. Sunstein ed., 2000)); Thomas J. Miles & Cass R. Sunstein, The New Legal Realism, 75 U. CHI. L. REV. 831 (2008); Howard Erlanger et al., Foreword: Is It Time for a New Legal Realism?, 2005 Wis. L. REV. 335 (action studies); Stewart Macaulay, The New Versus the Old Legal Realism: "Things Ain't What They Used to Be", 2005 Wis. L. REV. 365, 385–91 (same); LAW AND NEW GOVERNANCE IN THE EU AND THE US 2 (Grainne de Burca & Joanne Scott eds., 2006); William H. Simon, Toyota Invisional Realisms, Pulla Parimes in Law And New Manne Realisms, Pulla Parimes in Law And New M Jurisprudence: Legal Theory and Rolling Rule Regimes, in LAW AND NEW GOVERNANCE IN THE EU AND THE US (Grainne de Burca & Joanne Scott eds., 2006); Joanne Scott & Susan Sturm, Courts as Catalysts: Re-Thinking the Judicial Role in New Governance, 13 Colum. J. Eur. L. 565, 565 (2007) (illustrating how courts can execute their "authority to enhance the capacity of other actors to make legitimate and effective decisions"); Frank B. Cross, Political Science and the New Legal Realism: A Case of Unfortunate Interdisciplinary Ignorance, 92 Nw. U. L. Rev. 251, 253-54 (1997); BRIAN LEITER, NATURALIZING JURISPRU-DENCE: ESSAYS ON AMERICAN LEGAL REALISM AND NATURALISM IN LEGAL PHILOSOPHY (2007); Michael Heise, The Past, Present, and Future of Empirical Legal Scholarship: Judicial Decision Making and the New Empiricism, 2002 U. ILL. L. REV. 819, 819 (discussing quantitative empirical legal studies as a variant of new legal realism); ELIZABETH MERTZ, THE LANGUAGE OF LAW SCHOOL: LEARNING TO "THINK LIKE A LAWYER" (2007) (qualitative ethnographic research); Elizabeth Mertz, An Afterword: Tapping the Promise of Relational Contract Theory—"Real" Legal Language and a New Legal Realism, 94 Nw. U. L. Rev. 909, 923 (2000). This is but a small list and notably excludes the work by Yale Law School economists Ian Ayres and John Donahue on empirical and quantitative investigations and the work of a cadre of sociologists at the American Bar Foundation, including Terence Halliday, Laura Beth Nielson, and Bob Nelson.

^{5.} By "formalism" we meant deductive reasoning based on strong formal assumptions. Law and economics is also viewed as a successor to the old legal realism because the

was an analytic survey, although we also suggested various aspects of what we would like to see in an emerging "new legal realist" theory. For us, a defining feature of a new legal realist approach is the study, evaluation, and theorization of how law works over time—dynamically. Such work should include an assessment of the interaction of law's formal aspects with different political, economic, social, and psychological contexts. In this way, a new legal realism brings together the social sciences and the law—a marriage in which neither partner is subsumed, but both benefit from the union. As one author has since described this new legal realist approach:

[N]ew realists do not, or anyway should not, "simply reject law's formal qualities as meaningless." . . . Methodologically, an emphasis on law's social context, the use of empirical information about "ground level" legal administration, and the attempt to explore "the oftenmessy reality of law as it actually works" are all common features of the new legal realist project. Whereas the original legal realists generally sought to explain legal outcomes in terms of political, economic, and personal factors as opposed to formal doctrinal constraints, new legal realists tend to explore the *interconnection* of formality and doctrine with other factors as different aspects of legal decision making.⁶

Our aim in this article is to take the next step in developing new legal realism as a bridge between formal law and the social sciences by addressing two critical strands of new legal realism as needed complements: empirical legal studies and new governance. Here, we synthesize, analyze, and critique the virtues and potential vices of these two strands of research within the legal field. The first, empirical legal studies, has exploded in the academy⁷ and many of its proponents have claimed the

old legal realism responded to the idea that formal law consists of transcendent principles that are (and should be) applied to determine outcomes. Our point was that the deductive, formalist aspects of law and economics have become a target, in different ways, of the new legal realism. In our critique, we used "deductive" in the sense of a principle that determines its results from its premises, and is in this way formalist. Once the premise is mistaken, the syllogism fails. On the way in which deductive logic differs from inductive reasoning, see GILBERT HARMON & SANJEEV KULKARNI, RELIABLE REASONING: INDUCTION AND STATISTICAL LEARNING THEORY 6–8 (2007). As they write, "Deductive logic is a theory of what follows from what, not a theory of reasoning. . . . Deductive arguments are abstract structures of propositions, whereas inductive reasoning is a process of change in view." Id.

^{6.} Jessie Allen, *Documentary Disenfranchisement*, 86 Tul. L. Rev. 389, 398 (2011) (emphasis added) (quoting Nourse & Shaffer, *supra* note 2, at 125).

^{7.} See, e.g., Robert Cooter, Maturing into Normal Science: The Effect of Empirical Legal Studies on Law and Economics, 2011 U. Ill. L. Rev. 1475; Peter J. Carver, Reality Check: On the Uses of Empiricism, 21 Can. J.L. & Jurisprudence 447, 457 (2008); Theodore Eisenberg, The Origins, Nature, and Promise of Empirical Legal Studies and A Response to Concerns, 2011 U. Ill. L. Rev. 1713; Theodore Eisenberg, Why Do Empirical Legal Scholarship?, 41 San Diego L. Rev. 1741 (2004); Lee Epstein et al., On the Effective Communication of the Results of Empirical Studies, Part 1, 59 Vand. L. Rev. 1811, 1816 (2006) (summarizing recent developments in the field of empirical legal studies); Lee Epstein & Gary King, The Rules of Inference, 69 U. Chi. L. Rev. 1, 2–3 (2002) (explaining empirical research and noting that facts may be based on legislation, case law, interviews, surveys, archival research, primary data collection, or other); Susan D. Franck, Empiricism

mantle of new legal realism. The second, new governance experimentalism, has emerged as a leading contender for a new theory and approach to law,8 challenging the sufficiency of traditional legal remedies and focusing on organizational experimentalism. These two strands of new legal realism have distinctive strengths and limitations so that they need to complement each other. Yet, so far they have insufficiently engaged with each other, even if they share some skepticism about centralized, formal legal institutions. In this article, we bring empirical legal studies and new governance together, harnessing the best contributions of each to develop our position on new legal realism and its relation to formal law, and to propose a trajectory for future research in law.

and International Law: Insights for Investment Treaty Dispute Resolution, 48 VA. J. INT'L L. 767, 768 (2008); Susan Saab Fortney, Taking Empirical Research Seriously, 22 GEO. J. LE-GAL ETHICS 1473 (2009); Tracey E. George, An Empirical Study of Empirical Legal Scholarship: The Top Law Schools, 81 Ind. L.J. 141, 142 (2006) (detailing the rise in empirical legal scholarship); Michael Heise, An Empirical Analysis of Empirical Legal Scholarship Production, 1990-2009, 2011 U. ILL. L. REV. 1739; Heise, supra note 4, at 820-21; Sheri Lynn Johnson et al., The Delaware Death Penalty: An Empirical Study, 97 IOWA L. REV. 1925, 1928 (2012) (conducting an empirical analysis of cases in which the death penalty was sought in Delaware); Richard Lempert, The Inevitability of Theory, 98 CAL. L. Rev. 877 (2010); James Lindgren, Predicting the Future of Empirical Legal Studies, 86 B.U. L. Rev. 1447, 1447 (2006); John O. McGinnis, Age of the Empirical, Pol'y Rev. June 1, 2006, at 137; Michelle M. Mello & Kathryn Zeiler, Empirical Health Law Scholarship: The State of the Field, 96 GEO. L.J. 649 (2008); Jeffrey J. Rachlinski, Evidence-Based Law, 96 CORNELL L. REV. 925, 925 (2011); Gregory C. Sisk, The Quantitative Moment and the Qualitative Opportunity: Legal Studies of Judicial Decision Making, 93 Cornell L. Rev. 873 (2008); Mark C. Suchman & Elizabeth Mertz, A New Legal Empiricism? Assessing ELS and NLR, 6 Ann. Rev. L. & Soc. Sci. 555 (2010); Aims and Scope, Journal of Empirical Legal STUDIES, authorservices.wiley.com/bauther/Aims_scope.asp?ref=1740-143&site=1 (last visited Jan. 18, 2014) (publishing empirical analyses of the legal system and created in 2004).

8. The literature in a new governance, experimentalist vein is vast. See, e.g., Charles F. Sabel & William H. Simon, Minimalism and Experimentalism in the Administrative State, 100 Geo. L.J. 53, 62 (2011); Charles F. Sabel & William H. Simon, Contextualizing Regimes: Institutionalization as a Response to the Limits of Interpretation and Policy Engineering, 110 Mich. L. Rev. 1265 (2012); LAW AND NEW GOVERNANCE IN THE EU AND THE US, supra note 4, at 2; Jason M. Solomon, Law and Governance in the 21st Century Regulatory State, 86 Tex. L. Rev. 819, 823 (2008) (book review); Bradley C. Karkkainen, Information-forcing Regulation and Environmental Governance, in Law and New GOVERNANCE IN THE EU AND THE US, supra note 4, at 295 (praising new governance flexibility for its ability to be sensitive to "local ecological context" by involving interagency and inter-governmental collaboration with public and private actors); see also Susan Sturm, Gender Equity Regimes and the Architecture of Learning, in Law and New Governance in the EU and the US, supra note 4, at 323 (describing new governance as a method for addressing complex public problems through "centrally coordinated local problem solving"); Louise G. Trubek, New Governance Practices in U.S. Healthcare, in Law and New Governance in the EU and the US, supra note 4, at 261; Orly Lobel, United States: Governing Occupational Safety, in Law and New Governance in the EU and the US, supra note 4, at 287–88; Kenneth W. Abbott & Duncan Snidal, Strengthening International Regulation Through Transnational New Governance: Overcoming the Orchestration Deficit, 42 Vand. J. Transnat'l L. 501, 508-09 (2009) (identifying four central elements of New Governance, in which the state: "(1) incorporates a decentralized range of actors and distributions, both public and private, into the regulatory system, as by negotiating standards with firms, encouraging and supervising self-regulation, or sponsoring voluntary management systems; (2) relies on this range of actors for regulatory expertise; (3) modifies its regulatory responsibilities to emphasize orchestration of public and private actors and institutions rather than direct promulgation and enforcement of rules; and (4) utilizes 'soft law' to complement or substitute for mandatory 'hard law.'").

This article proceeds as follows. In Part II, we situate new legal realism as a scholarly development, noting its historical connotations and legacies. The traditional understanding of legal realism is that it is a form of legal skepticism, and, at its crudest, that the law is simply what the judge ate for breakfast.⁹ In Part IIA, we reject that view and argue that new legal realism must resist the impulse to subsume law within other scholarly disciplines. New legal realism should not mean that law dissolves into, for example, economics, political science, or sociology. In this sense, new legal realism cannot forsake law; it must acknowledge law's role and, in particular, law's normativity as a powerful factor, including in a public sense of law's legitimacy.¹⁰ We are thus both pro-empiricist and anti-reductionist.¹¹

We address the risks for legal realism of radical skepticism and subsumption of law under other disciplines to build a new legal realism that expressly takes account of law's conditional role. In Part IIB, we offer two concepts to measure the success of a new legal realism in engaging with law: emergent analytics and conditional legal theory. By "emergent analytics" we mean legal concepts that emerge from factual analysis, such as Stewart Macaulay's path-breaking work on "relational" contracting, 12 in which the very idea of "relational" contracting emerged not from "the view from nowhere," but from real life empirical work. By "conditional theory," we mean legal theory that eschews "law versus" dualisms (such as law versus economics or law versus politics) and instead aims to explain the "conditions" under which law does or does not matter in various public arenas, such as the market, courts, agencies, or Congress. Debates about whether law is really political or cultural or society are largely fruitless. The truth lies in the messy middle. The important question is whether one can find when law counts in a dynamically changing world. Any scientist can tell you that to explain any natural phenomenon, one must do more than describe or pigeonhole. One must predict the phenomenon's variation as much as its existence. Conditional theorizing addresses when and how formal law matters. Emergent analytics

^{9.} Legal skeptics generally point to the old legal realists as their predecessors, from the attitudinalists in political science to those in the critical legal studies movement. Cf. Jeffrey A. Segal & Harold J. Spaeth, The Supreme Court and the Attitudinal Model Revisited 87 (2002) (viewing judging as policymaking based on ideology and writing that "the attitudinal model has its genesis in the legal realist movement"), and Andrew Altman, Legal Realism, Critical Legal Studies, and Dworkin, 15 Phil. & Pub. Aff. 205, 206 n.4 (1986).

^{10.} See Tom R. Tyler, Why People Obey the Law 3 (2006) (on the public's perception of law's legitimacy); Robin West, Normative Jurisprudence: An Introduction 1 (2011) (criticizing much of jurisprudence, including neocritical theory, for moving away from normative engagement).

^{11.} Even though reduction is important in the development of science, it is often crudely misused in the field of social science. John Elster, Explaining Social Behavior: More Nuts and Bolts for the Social Sciences 258 (2007).

^{12.} Stewart Macaulay, Non-Contractual Relations in Business: A Preliminary Study, 28 Am. Soc. Rev. 55, 55 (1963). See also Ian Macneil, The Relational Theory of Contract: Selected Works of Ian Macneil (David Campbell ed., 2001).

complements it because it helps us to reevaluate analytic priors so that new understandings may emerge.

With this critique of the risks of subsumption, and with these two concepts of conditional theory and emergent analytics, in Part III we evaluate two prominent strands of new legal realism: empirical legal studies and new governance. In Part IIIA, we examine empirical legal studies by focusing on quantitative studies of the politics of judging and emphasize the virtues of fact-bound inquiries, while also noting the risks. Armed with new technology, new methodologies, and faculty members trained in many disciplines, empirical legal studies has far greater resources and promise than its theoretical ancestor—the old legal realism.¹³ Yet, recent work in meta-analytic statistics, in particular by Stanford epidemiologist John Ioannidis, points to the risks of quantitative studies and posits that vast numbers of these studies may be false, a finding that applies to natural as well as the social sciences. 14 This should give pause about the ability of statistical (correlational) inference to provide "facts" about law. We maintain that the legal academy must continue its search for fact, but with due humility for methodological fallibility. It must be wary of broad claims and aim to explain variation in a dynamic world, as opposed to end-states of affairs. It must watchful of the risk of reconfirming analytic priors reflected in the parameters and assumptions used, and thus should be open to new analytics that emerge from empirical study.

In Part IIIB, we analyze new governance experimentalism as a complementary strand of new legal realism. We applaud both new governance's commitment to an experimental methodology that builds from pragmatist insights in a world characterized by complexity and dynamic change, and its attention to human creativity in designing alternatives to traditional command-and-control regulation. New governance offers a wonderful opportunity for creative legal thinking both because it eschews reliance on the command-and-control mode and because by "going local" it facilitates emergent legal analytics. Virtue, however, may become vice if there is no assessment of the role of variation in the stringency of formal legal restraints on those who are to interact or collaborate in different contexts. New governance theory will thus benefit from complementary empirical study of the conditions under which experimentalism interacts with formal law. For new governance theorists, law operates as a catalyst. Legal catalysts need to be studied empirically and theorized in terms of variation-i.e. when does experimentalism successfully interact with formal law and when does it not?

In Part IV, we bring together the common themes of empiricism and experimentation with our concepts of conditional theory and emergent

^{13.} Cf. Herbert M. Kritzer, The (Nearly) Forgotten Early Empirical Legal Research, in The Oxford Handbook of Empirical Legal Research 876–96 (Peter Cane & Herbert Kritzer eds., 2010).

^{14.} John P.A. Ioannidis, Why Most Published Research Findings Are False, 2 PLoS Med. 696, 696 (2005).

analytics. We assert that new legal realism must continue to be anti-formalistic, without losing sight of the conditional but often critical role of formal law. It must ground theory in fact through empirical analysis yet retain a fallibilistic theory of truth.15 For some scholars, our conception of a new legal realism may seem paradoxical because they conceive (and in our view misconceive) of legal realism as radical skepticism of formal law. Our aim is to provide a bridge between formal law, policy, and the social sciences by grounding new legal realist theory in philosophical pragmatism incorporating formal law, empirical study, and experimentalist practice. Our aim is to build new realist theory that brings together problemoriented empiricism and experimentalism to address law's role in different contexts in a fast-changing world.

BUILDING A NEW LEGAL REALISM AFTER SKEPTICISM II. AND SUBSUMPTION

The new legal realism, like the old legal realism, as Llewellyn noted, is more of a "movement" than a "school." 16 Its power lies in calling into question formalistic reasoning, distinguishing "paper rules" from "real rules," and focusing attention on the behavioral aspects of law on human actors and social consequences. Regarding courts, the old legal realists drew attention to the role of factual context in judicial decisionmaking. From this assessment, they attempted to reshape legal doctrine into narrower, factually-contextualized categories. Old legal realists were also problem focused, with Karl Llewellyn calling for a "'sustained and programmatic attack' on legal problems" in his legal realist manifesto. 17

THE PROBLEMS OF SKEPTICISM AND SUBSUMPTION

While there were many fine and wise impulses of the old realism, including an attention to the "centrality of facts and empirical evidence," 18 the legal realism of the 1930s also indulged in silly reductive claims borrowed from the social sciences. 19 Jerome Frank argued about infantilized

^{15.} As Brian Tamanaha writes, "A 'fallibilistic' theory of truth" is "open to the possibility that a truth today may not be a truth at some later period—as distinct from an absolute theory of truth, or from its opposite, scepticism (the denial of the possibility of truth)."

See Brian Z. Tamanaha, Realistic Socio-Legal Theory: Pragmatism and a Social Theory of Law 33 (1997); see also Heidi Li Feldman, Cardozo Not Holmes, Fallibiliism not Skepticism, Pragmatism not Legal Realism, (Feb. 17, 2012) (unpublished paper available at http://ssrn.com/abstract=2006155) (arguing that skepticism is deeply incompati-

ble with fallibilism, a basic principle of American philosophical pragmatism).

16. Karl N. Llewellyn, Some Realism About Realism—Responding to Dean Pound, 44 HARV. L. Rev. 1222, 1233-34 (1931); KARL N. LLEWELLYN, JURISPRUDENCE: REALISM IN THEORY AND PRACTICE 53, 54 (1962) [hereinafter Llewellyn, JURISPRUDENCE].

^{17.} Llewellen, Jurisprudence, supra note 16, at 54–57.
18. Nourse & Shaffer, supra note 2, at 72.

^{19.} See John Henry Schlegel, American Legal Realism and Empirical Social Science: From the Yale Experience, 28 BUFF. L. REV. 459, 459-60 (1979) (emphasizing the empirical aspects of the original legal realism); John Henry Schlegel, American Legal Real-ISM AND EMPIRICAL SOCIAL SCIENCE (1995).

judges seeking to please their fathers.²⁰ Other realists suggested that law was nothing more than a judge's attitudes, making the study of law itself irrelevant.²¹ Let us be clear at the outset that we reject (as did Llewellyn and other leading realists)²² two common claims sometimes associated with realism, old or new: (1) deep skepticism about law and (2) the dominance of other academic disciplines over law.

Indeed, the radical skepticism of certain strains of realism has proven, over time, to be self-defeating, yielding its opposite: new formalistic ideals and denials of fact and context. A thoroughgoing realist skepticism has wrought strange bedfellows. In the 1930s one of the great classic realist articles was written by Max Radin. Radin's debunking claim was to take the central concept used by American judges in statutory interpretation—"legislative intent""—and argue that it was a fiction—Congress had no collective intent.²³ Fifty years later, the realist critique has been revived and embraced by self-described formalists, such as Justice Antonin Scalia, to support a focus on the text of the statute accompanied by ancient interpretive canons (on the theory that if there is no intent, then the only thing left is the text of the statute).²⁴ Judge Richard Posner (hardly a radical) refers to this approach as an "autistic" theory of statutory interpretation: it takes words so literally that, if asked, the textualist might be committed to say that if a statute covered a "sleep aid," it would include a "sledgehammer taken to the head."25 Radin, once the darling of the skeptical realists is now the darling of the formalists. The skeptics'

^{20.} Frank, *supra* note 18, at 21 ("The Law can easily be made to play an important part in the attempted rediscovery of the father. For, functionally, the law apparently resembles the Father-as-Judge.").

^{21.} Realism's strains of extreme skepticism were revived by the Critical Legal Studies Movement, a movement that saw the legal realists as its predecessor. However, skepticism was one (although certainly not the only) implication that could be taken from the realists aim to "construct a theory of judging that refused to accept doctrine's determinacy." Nourse & Shaffer, supra note 2, at 72 (citing Letter, supra note 4, at 15–30 (emphasizing this form of empiricism, although there are others)). "The more extreme forms of realism fell in the face of external threat"—namely Naziism. See Nourse & Shaffer, supra note 2, at 72.

^{22.} In writing about the need to distinguish "real rules" from "paper rules," Llewellyn made clear "that I feel strongly the unwisdom, when turning the spotlight on behavior, of throwing overboard emphasis on rules, concepts, ideology, and ideological stereotypes or patterns "Karl N. Llewellyn, A Realistic Jurisprudence—A Next Step, 30 Colum. L. Rev. 431, 447–48; 462 n. 33 (1930). Here we agree with Leiter and Wouter de Been that critical legal studies has mischaracterized legal realism to fit its own image, which characterization, in turn, has been picked up by other scholars. Andrew Altman, for example, writes, "the master theme of legal realism" was "that of the breakdown of any sharp distinction between law (adjudication) and politics." Altman, supra note 9, at 206 n.4 (1986). As Leiter notes in response, "While this is the 'master theme' of C.L.S., to be sure, it is not a theme in the writings of Llewellyn, Oliphant, Frank, and Moore, among other prominent Realists." Leiter, Naturalizing Jurisprudence, supra note 4, at 62 n.12. See also Wouter De Been, Legal Realism Regained: Saving Realism from Critical Acclaim (2008).

^{23.} Max Radin, Statutory Interpretation, 43 HARV. L. REV. 863, 868-70 (1930). For a lengthier discussion of Radin's claim, see Victoria Nourse, A Decision Theory of Statutory Interpretation: Legislative History by the Rules, 122 YALE L.J. 70 (2012).

^{24.} RICHARD A. POSNER, HOW JUDGES THINK 193-94 (2008).

^{25.} Id. at 194.

claim has become a platform for reaction and a willing blindness to fact and context.²⁶

Second, we reject any legal theory that subsumes law within other disciplines—and therefore are anti-reductionists. Law cannot be fully explained by any other academic discipline, whether economics, political science, sociology, or anthropology.²⁷ The "law and" movement has provided a depth and richness to legal scholarship never before seen, but it also risks disciplinary self-congratulation. Social scientists trained in particular disciplines tend to use their own disciplinary tropes, which may be quite alien to the law. Successful interdisciplinary work must translate these concepts so that they can be understood and applied pragmatically in light of legal institutions. Translation is a process of mutual accommodation, not surrender. Disciplinary subsumption leaves very little room for the distinctively legal—legal institutions, legal professions, legal consciousness, and legal modes of discourse.28 Instead, as Beth Mertz has insistently emphasized, the project of new legal realism must address the translation between social science and law, and provide a "sophisticated conversation about the process of translation itself."29

^{26.} In an equally famous realist article, Karl Llewellyn showed that for every canon there was a counter-canon, Karl N. Llewellyn, *Remarks on the Theory of Appellate Decision and the Rules or Canons About How Statutes Are to be Construed*, 3 VAND. L. REV. 395, 399, 401–16 (1950). However, the "new textualists," with their anti-realist, formalist approach, have revived the emphasis on canons—skepticism has become the handmaiden of formal reaction.

^{27.} See Letter, supra note 4, 59–80 (chapter on Legal Realism and Legal Positivism Reconsidered). It is true that Llewellyn wrote, "What these officials [judges, sheriffs, jailers, lawyers] do about disputes is, to my mind, the law itself." Karl N. Llewellyn, The Bramble Bush: Some Lectures on Law and Its Study 3 (1930). But here, Llewellyn is not setting forth a concept of law, but rather pointing out how law operates in practice, as practical for any practicing lawyer advising a client.

^{28.} On the importance of the configuration of what they term the "legal complex," see Lucien Karpik & Terence C. Halliday, *The Legal Complex*, 7 ANN. REV. L. & Soc. Sci. 217 (2011).

^{29.} See Elizabeth Mertz, Introduction to The Role of Social Science in Law XIII-XXX (Elizabeth Mertz ed., 2008); Elizabeth Mertz, Translating Science into Family Law: An Overview, 56 DEPAUL L. REV. 799, 801 (2007) ("An adequate translation of social science to law must look at the intervening steps just as systematically and carefully as it looks at the initial findings."). Joel Handler et al., A Roundtable on New Legal Realism, Microanalysis of Institutions, and the New Governance: Exploring Convergences and Differences, 2005 Wis. L. Rev. 479, 489 ("[I]t is not enough to just hand lawyers social science findings, or to hand social scientists areas of law to explore. Instead, we need to commence a sophisticated conversation about the process of translation itself, an exchange in which we ask about the frame around the findings, about what the language is for, about the impact of using one method or another, and so forth. Lawyers may need to let in a little more nuance and curb their punch line mentality for a time. Social scientists may need to understand that lawyers are people who do not have the luxury of waiting another five years to find out what is going on, because there is a decision that has to be made tomorrow. The challenge of bridging these fundamental chasms is a core task of new legal realist translations."). Similarly, Christopher Tomlins writes that "a core mission of the New Legal Realist project [is] ... the development of a sophisticated process of translation and exchange between law and social science." Christopher Tomlins, *In This Issue*, 31 Law & Soc. Inquiry 795, 795 (2006); see also Mitu Gulati & Laura Beth Nielsen, *Introduction*: A New Legal Realist Perspective on Employment Discrimination, 31 LAW & Soc. INQUIRY 797, 797 (2006) ("The movement has emerged at a time when there is said to be a growing disjunction between social scientists and law professors to the detriment of our scholarly

Taking these two positions together leads us to the belief that new legal realism must be something more than a debunking exercise; it must develop positive theory about law's operation in the world based on facts about the world. Just as the old realists investigated institutions (albeit with greatest attention on courts) and engaged in new empirical endeavors (albeit with varying success),³⁰ new legal realism must develop a jurisprudence of fact³¹ combined with a sensibility of translation. This article contributes to this task by examining what we advance as two pillars of a new legal realism: conditional theory and emergent analytics.

Before proceeding, a brief clarification about what we mean by "formal" law, Legal realists, old and new, (ourselves included), are less interested in the general, jurisprudential question of "what is law", "than in the question of how" law is formed and practiced.³² We stipulate in entirely conventional terms that the "official Law" of a society, to borrow Llewellyn's term,³³ has its source in statutes, regulations, or judicial decisions.³⁴ Thus, we do not dispute the traditional positivist accounts of "official" law grounded in H.L.A. Hart's social thesis or Neil MacCormick's institutionalized normative order.³⁵ Indeed, some legal realist theorists,

and practical understanding of the relationship between law and social change. New Legal Realism is dedicated to combating that disjunction.").

- 30. Cf. Kritzer, supra note 13 (noting its importance); John Henry Schlegel, American Legal Realism & Empirical Social Science (1995) (claiming that the conventional depiction of legal realism focuses too much on jurisprudence and not on their social science); William Twining, Karl Llewellyn and the Realist Movement 63, 65–66 (1st ed. 1973) (Arguing that Underhill Moore's studies of parking in New Haven are a "symbol of the ridiculous and expensive pursuit of trivia by the highly talented," a perfectly "empirical" study that had no impact whatsoever on law or legal theory.).
- 31. For a forerunner, see William James, What Pragmatism Means, PRAGMATISM IN FOCUS 48 (Doris Olin, ed. 1992) ("Pragmatism is uncomfortable away from facts. Rationalism is comfortable only in the presence of abstraction.").
- 32. See Nourse & Shaffer, supra note 2, at 118: Letter, supra note 4, at 59–81 (chapter on Legal Realism and Legal Positivism Reconsidered). It is true that Llewellyn wrote, "What these [judges, sheriffs, jailers, and lawyers] do about disputes is, to my mind, the law itself." Karl Llewellyn, The Bramble Bush: Some Lectures on Law and its Study 3, 3 (1930). But here, Llewellyn is not setting forth a concept of law, but rather pointing out how law operates in practice, as practical for any practicing lawyer advising a client.
- 33. See Karl Llewellyn, The Normative, the Legal, and the Law-Jobs: The Problem of Juristic Method, 49 YALE L.J. 1354, 1378 (1940).
- 34. Hart viewed a legal system as consisting of primary and secondary rules of recognition, adjudication, and change (the rules used to identify and apply the primary rules). He grounded that view in terms of how legal actors themselves viewed law from an internal perspective. H.L.A. Hart, The Concept of Law 78–96 (2d ed. 1997) (characterizing his thesis as "descriptive sociology"); Neil MacCormick, Institutions of Law: An Essay in Legal Theory (2007).
- 35. This is not the place to enter into questions of general jurisprudence, which is of less interest to us as realists concerned with legal practice. We nonetheless note that this conception of formal law is compatible with Hart's source thesis—that is, a rule in a legal system validated by a rule of recognition. We likewise note that formal law can be viewed in institutional terms, as set forth in Neil MacCormic, Institutions of Law: An Essay IN Legal Theory 1 (2007). The concept of formal law can also have certain substantive attributes, such as those espoused by Lon Fuller if indeed that is the social convention in question, as Hart, in the end, suggested. See Lon Fuller, The Morality of Law 152–84 (1964); Tamanaha, supra note 15, at 128 n.22 ("Lon Fuller's The Morality of Law (1964) is an attempt at specifying the essential elements of law. However, this is the nature of the

such as Brian Leiter, take a strong positivist stance regarding the concept of law.36 When we refer to "formal law," we use the modifier "formal" so as not to foreclose inquiries that move beyond traditional sources and pedigrees of "official Law" to highlight the social contexts of relevant actors³⁷ and the dynamic aspects of legal practice³⁸ in a given society at a given time and in a wide variety of contexts.³⁹

CONDITIONAL THEORY AND EMERGENT ANALYTICS

If legal skepticism leaves us with no law and legal formalism divorces law from fact, then we need new ways of talking about how law works in a world of fact. Law is constituted both by power and reason, two elements in ongoing and dynamic tension with each other.⁴⁰ Law cannot be reduced to either. It cannot be reduced to power, whatever the conception of power used, from traditional views of the power of "the popular vote"41 to "politics in robes"42 to more arcane notions of "biopower."43 Nor can it be reduced to doctrine. The reasoning of case law remains important even if alone it is insufficient to describe matters that elude particular cases, like questions about legal change or embedded normative commitments. For too long, however, academics have been fighting the "law versus" question—law versus politics, law versus economics, and so on. These debates depend upon concepts that are totalizing and rigid. leaving legal scholarship with a serious deficit of analytic imagination.

We need new concepts that allow for the simultaneous play of law and fact. Here, we elaborate on two concepts-emergent analytics and condi-

ideal of law as it exists within the Western liberal rule of law tradition."); HART, supra note 35, 267 (his Postscript, for an inclusive position).

36. See Leiter, supra note 4, at 67, 122.

37. See Karl Llewellyn, The Normative, the Legal, and the Law-Jobs: The Problem of Juristic Method, 49 YALE L.J. 1354, 1378 (1949).

38. See, e.g., MICHAEL MCCANN, RIGHTS AT WORK: PAY EQUITY REFORM AND THE POLITICS OF LEGAL MOBILIZATION (1994) (viewing law broadly in terms of the legal con-

39. See Karl Llewellyn, The Normative, the Legal, and the Law-Jobs: The Problem of Juristic Method, 49 YALE L.J. 1354, 1378 (1940).
40. Hanoch Dagan, The Realist Conception of Law, 57 TORONTO L. Rev. 607 (2006);

Nourse & Shaffer, supra note 2.

41. We mean the power that comes from the perception of political masses' views, which politicians are consistently anticipating. See R. Douglas Arnold, The Logic of CONGRESSIONAL ACTION 10 (1990) (arguing that politicians anticipate voters' opinions and behave accordingly).

42. James Gibson, Judging the Politics of Judging: Are Politicians in Robes Inevitably Illegitimate?, in What's Law Got to Do with It?: What Judges Do, Why They Do It, AND WHY IT MATTERS (Charles Gardner Geyh, ed., 2011); Barry Friedman, The Importance of Being Positive: The Nature and Function of Judicial Review, 72 U. CINN. L. Rev. 1257, 1284 (2004); Suzanna Sherry, Putting the Law Back in Constitutional Law, 25 Const. Comment. 461 (2009); Michael J. Perry, The Constitution in the Courts: Law or Politics? 86–90 (1994); Richard A. Posner, Realism about Judges, 105 Nw. U. L. Rev. 577

43. MICHEL FOUCAULT, THE HISTORY OF SEXUALITY: AN INTRODUCTION (Robert Hurley trans., 1978); MICHEL FOUCAULT, SOCIETY MUST BE DEFENDED: LECTURES AT THE COLLEGE DE FRANCE 1975–76, 242–54 (Mauro Bertani et al. eds., David Macey trans., 2003).

tional theory. By "conditional theory" we mean theory built to predict variation regarding law's place and role. By "emergent analytics" we mean analytics that the researchers have not themselves brought to the project on account of their analytic priors, but which emerge from the investigation in terms of both revealed facts and new concepts necessary to explain and respond to those facts.

The internal tension within each of these concepts is intentional. Theory uses abstractions and generalizations to maximize its reach and explanatory force. The concept of conditional theory, while it endorses the importance of theory building, calls attention to the contingent reach of any realistic theory of law's role in light of the different and always changing contexts in which law operates. The theory is not universal and timeless in its pretensions, but contingent on context and attendant to new problems that arise in a dynamic world. Likewise, the practice of analytics is circumscribed by methodology and data. The concept of emergent analytics, while it necessarily engages with conceptual analysis, intentionally presses the analyst to subject the concepts used to ongoing critique and thus amenable to discovery in light of the shifting nature of problems that societies face.

Conditional legal theory is both pro-empirical, because it aims to assess the different contexts in which law develops and has effects, and antireductionist, because it aims to study law's relative power in relation to other forces and thus does not reduce law to such forces. For example, one of the challenges of empirical work on law is the tendency to see law through disciplinary blinders. Political science tends to explain law as a subset of politics; sociology explains it as a subset of society and social change; and linguistics as a subset of interpretation. This reductionism leaves little place for law as a semi-autonomous, normative enterprise. It suggests that law has no separate value apart from its efficacy in achieving welfare economics, party politics, or social functionality. Indeed, it leads to repetitive straw man debates—whether law is determined by politics, culture, or society—because the analysis is grounded in strong meta-theories that reproduce themselves.

Conditional theory has two aspects: one immediate and rationalist regarding facts and one deeper and cognitive regarding concepts. The rationalist aspect asks the following question: Under what conditions does a phenomenon matter? In our case, the phenomenon is law, and the question is the following: under what conditions does law matter? The conditions are uncovered through empirical work by investigating and testing different explanatory variables (such as measures of politics, power, social criteria, and legal doctrine) against dependent variables (such as particular outcomes or patterns of reasoning). Scholars thus assess and theorize the importance of context. Such a conditional theory, built from empirical work, is important for practice, including for practicing lawyers. To the extent that we can shape our context, we can also affect outcomes

by choosing particular institutional strategies and regulatory tools. Conditional theory thus helps us advance normative goals.

The cognitive (or constructivist) aspect of conditional theory pushes deeper; it links with what we call emergent analytics: the concepts and strategies that emerge from empirical research and practice itself. For example, when Stewart Macaulay attempted to explain the facts he discovered—that businessmen did not care very much about the details of contract law—he was forced to develop an analytic concept that was itself a discovery—:namely, "relational" contracting.44 Concepts shape the construction and diagnosis of the problems that we face; the solutions that we imagine, devise, and seek; and the practices that we undertake. Concepts help both the individual and the group to reduce uncertainty, enhance predictability, and even release energy⁴⁵ (think of the world without the idea of "contract").46 But they also engender oppression and suffering (think of the idea of "eugenics"). At an intellectual minimum, new legal realists must understand that concepts can constrain action by obscuring problems and alternative paths. In this sense, conditional theory addresses the conditions of the very concepts used, which are human constructs erected in time in order to understand, order, and shape our world.47

Conditional theory thus needs to be complemented by an emergent analytics, an analytics in which we are reflexive of our priors in relation to our experience. Empirical study can inform and help us to assess and (provisionally) understand our experience. But it must do so with a mind-set cognizant of its fallibility and, thus, open to ongoing reappraisal. From a pragmatist perspective, although conditional theory informs our interventions in the world to help advance our normative ends, these ends, and the concepts used to imagine these ends must be revisable in light of our experience. They are ends-in-view, in John Dewey's terms, and con-

^{44.} Stewart Macaulay, The Real and the Paper Deal: Empirical Pictures of Relationships, Complexity and the Urge for Transparent Simple Rules, 66 Mod. L. Rev. 44, 44 (2003).

^{45.} See WILLARD HURST, LAW AND THE CONDITIONS OF FREEDOM IN THE 19TH CENTURY UNITED STATES (1956) (Chapter 1, entitled "The Release of Energy," builds the thesis that law was used in 19th century America to release creative energies.).

^{46.} See WILLARD HURST, LAW AND THE CONDITIONS OF FREEDOM IN THE 19TH CENTURY UNITED STATES (1956) (Chapter 1, entitled "The Release of Energy," builds the thesis that law was used in 19th century America to release creative energies.).

^{47.} For the philosophical pragmatist, these two aspects of conditional theory are linked. We must live in the world and therefore studying the role of law in reducing uncertainty, enhancing predictability, releasing energy, and promoting welfare (or doing the contrary) is useful and important. From the rationalist vantage, it is sensible to enhance our understanding of law's conditional role in the context in which we live. Yet our very conceptualization of these conditions is also conditioned, shaped by the context of time and place in which we make choices and act. As pragmatists, we must recognize the fallibility of these concepts and the importance of critical scrutiny of their deployment and practice. There is no getting away from them, and we should not attempt to do so. When we act, we harness concepts for their usefulness. But we should also critically recognize their conditional, and thus revisable, nature. The facts that our concepts uncover and the values that they express, move together, conditionally. Only when our empirical and experimental endeavors are coupled with a reflexive sensibility will new analytics emerge.

cepts-in-progress in ours.⁴⁸ The neo-pragmatist social theorist Hans Joas coined the term "situated creativity," which parallels our two concepts.⁴⁹ By "situated creativity," Joas meant that we must recognize the empirical conditions in which we act, while engaging our intellect and creativity to shape those conditions to address the social problems we confront. Not only our means and ends, but also the concepts we use must be revisable in light of their successes and failures in helping us to resolve the problems we face.⁵⁰

Two examples help to highlight the importance of conditional theory and emergent analytics, one taken from domestic law and the other from international law. In contract law, formal law can protect weak parties from exploitation but it can also impede and undermine valuable contractual innovation. Ronald Gilson, Charles Sabel and Robert Scott have written a series of articles assessing contract innovations in contexts involving new technologies and global networks.⁵¹ Collaborations to develop new technologies, for example, may involve preliminary agreements for investments that generate information regarding whether a project should be pursued. Traditional contract law may not even recognize these agreements, or may provide remedies so stringent as to disincentivize collaboration. Having "discovered" a new problem through empirical inquiry, the authors are forced to build new concepts (emergent analytics) to address the new context. They find that traditional contractual concepts found in formal law and generalist courts have a limited role to play in these contexts. Instead, they focus on experiential learning as an important element of the contractual relationships that builds trust and leads to increased collaboration. They theorize the role of different governance arrangements through which learning occurs offering a "conditional" theory (our term) of contractual relationships in the context of global supply chains and demand for innovation.

Second, consider new empirical work in international human rights law. The "official Law" of the international realm is codified in treaties, but it is well known that this arrangement has not led to fewer human rights violations. It is rather easy to ratify a treaty and do nothing. Faced with this problem, Beth Simmons engaged in extensive research to try to differentiate states that do comply without a treaty and those that do not comply with a treaty. She reconceptualized existing data by excluding nation states that ratify treaties with no credible evidence that they will comply (false positives) and also excluding those that need not ratify trea-

^{48.} Hugh P. McDonald, John Dewey and Environmental Philosophy 112 (2004).

^{49.} Hans Joas, Pragmatism and Social Theory 133 (1996).

^{50.} Id.

^{51.} See Ronald Gilson, Charles Sabel and Robert Scott, Contract and Innovation: The Limited Role of Generalist Courts in the evolution of Novel Contractual Forms, 88 New York University L. Rev. 170 (2013); Ronald Gilson, Charles Sabel and Robert Scott, Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration, 109 COLUMBIA L. Rev. 431 (2009).

ties to credibly enforce human rights commitments (false negatives).⁵² Emerging from this empirical investigation was a new conceptual category of states most likely to comply: "the mass of nations with institutions in flux."⁵³ She found that "in civil and political rights, a treaty's greatest impact is likely to be found not in the stable extremes of democracy and autocracy," but in a middle group "where citizens potentially have both the motive and the means to succeed in demanding their rights."⁵⁴ A problem (human rights enforcement) yielded empirical inquiry from which emerged new concepts and theory from conditions discovered and explained.

III. EMPIRICAL LEGAL STUDIES & NEW GOVERNANCE: VIRTUES & VICES

One of the great challenges facing American versions of new legal realism is to gain analytic purchase in a field with many participants. In this section, we focus on two critical strands of a new legal realism—empirical legal studies and experimentalist new governance. These strands represent two significant scholarly impulses: (1) the aim to ground law in "what really happens," as exemplified by the empirical study of law, and (2) the resistance to the myopic focus on top-down, command and control, court-centric models of law, as exemplified by the "new governance," experimentalist movement.

We place empirical legal studies and new governance in productive tension in an effort to build a new realism that takes from each and complements both. Whereas empirical legal studies is often method-driven, new governance aims to be bottom-up, flexible, and problem-driven. Whereas empirical legal studies often ignores collectivities, taking the individual as its unit of analysis, ⁵⁶ new governance embraces collectivities, examining the prospects of discovery through the dynamics of participants' interaction. Whereas empirical legal studies focuses on the past, new governance seeks the future with new forms of experimentalist regulation. Whereas empirical legal studies tends to focus its attention on traditional hard law and the courts, new governance focuses on soft law and the regulatory state.

Despite these differences, these scholars share core commitments. Both programs are committed to obtain a clear view of how law works in practice, and have thus rightly called their work forms of new legal real-

^{52.} Beth Simmons, Mobilizing for Human Rights: International Law in Domestic Politics (2009).

^{53.} Id. at 155.

^{54.} In related work, Emilie Hafner-Burton then drew out a pragmatist response, maintaining that, in a world of scarce resources, human rights promoters should work with nation states with dedicated resources for human rights activities and engage advocacy groups within this middle range of countries so that human rights law can be more effectively actualized. Emilie Hafner-Burton, Making Human Rights a Reality (2013).

^{55.} Brian Leiter, In Praise of Realism (and Against "Nonsense" Jurisprudence), 100 GEO. L.J. 865, 893 (2012).

^{56.} Rational choice theory tends to take the individual as the unit of analysis.

ism, pointing to the old legal realists as their predecessors. In what follows, we argue on the one hand that empirical legal studies and new governance have distinctive merits and provide essential complements to each other. On the other hand, we contend that each poses similar risks if it fails to address and theorize the critical (but conditional) role of formal law.

First, we commend and critique the virtues and vices of empirical legal studies, arguing for a realism engaged in "thinking what we do," in the words of Hannah Arendt.⁵⁷ There should be no doubt that as legal realists we are pro-empiricists. Factual inquiry is essential to producing meaningful critiques of existing practice, discovering new forms of legal interaction with political and social dynamics, and assessing basic normative claims. Nevertheless, standard empirical work in legal studies should not be taken for granted as uncovering fact; it presents risk as well as promise. To start, quantitative researchers tend to be biased toward material easily subject to quantitative reduction (that is measurable). Precisely because it depends upon what has been measured, it necessarily has a bias toward the past and tends as a result to reinvent the past in the present. In addition, much empirical work in the legal academy is subject to disciplinary bias: political scientists favor political explanations, sociologists favor sociological ones, and so forth. Advances have been made toward addressing at least some of these biases in the study of law's role by adopting what we call conditional theory—methodological approaches which seek to predict variation and which are contingent on context. Nonetheless, empirical legal studies must also include methods that are open to an emergent analytics—analytics that the researchers have not themselves brought to the project but which emerge from the investigation.

Second, we consider new governance advocates' claim to the modern mantle of legal realism. Borrowing from the vast and growing literature on soft law, new governance has identified a real world phenomenon moving lawyers beyond jurocentrism (a court-focused bias) and toward a model of lawyering and regulation that is appropriately focused on problem-solving in the pragmatist tradition. As in the case of empirical legal studies, we nonetheless raise concerns about various aspects of this form of new legal realism. We highlight the risks when its analyses are not sufficiently grounded in empirical analysis, when its forms of regulation are biased toward those who choose to participate, and when its advocates are not sufficiently wary of unproductive group rationalities.⁵⁸ In particular, we challenge new governance theory to more clearly articulate the conditional role of formal law and command and control regulation for experimentalist practices to work effectively. For example, to say that law is a catalyst does not tell us what kind of design regimes are the best

^{57.} ROBERT P. BURNS, A THEORY OF THE TRIAL 4 (1999) (quoting Arendt).

^{58.} Christian List & Philip Petit, Group Agency: The Possibility, Design, and Status of Corporate Agents (2011).

catalysts in different contexts. WE call for and highlight new governance analytics that assess the legal designs and factual contexts likely to produce virtuous learning cycles to address problems.

EMPIRICAL LEGAL STUDIES

Empirical work in law began in earnest long before new legal realism emerged.⁵⁹ It was given a major spur by the realists,⁶⁰ and then developed in the 1970s and 1980s in the law and society movement.⁶¹ Although it is difficult to generalize, methodologies were eclectic, borrowing from other disciplines including sociology, history, anthropology, and political science.⁶² Today, the cutting edge of empirical legal studies embraces sophisticated quantitative methodologies. There is now a Society for Empirical Legal Studies,63 an annual Conference on Empirical Legal Studies, 64 and a Journal for Empirical Legal Studies, 65 all of which are almost exclusively quantitative in their orientation.⁶⁶

In this section we commend the overall empirical enterprise but warn about the risks of leaving law and its normativity at the side of the road. Our assessment probes what is meant by empirical in the social sciences, which is an area of important contention within the legal academy (and other disciplines).⁶⁷ For us, the field of empirical study must include ethnography, systematic interviewing, historical process tracing, analytic narratives, surveys, and so forth, as well as quantitative empirical work. These empirical methods all suffer from risks of bias, and thus must be deployed in a spirit conducive to conditional theorizing and emergent analytics.⁶⁸ Moreover, in a world of complex and rapid change, the methods

^{59.} See, e.g., Michael Heise, The Past, Present and Future of Empirical Legal Scholarship: Judicial Decision Making and the New Empiricom, 2002 U. ILL. L. REV. 819 (discussing history of realism and empiricism).

^{60.} Although there is a lively debate among historians about whether the realist movement was primarily one about theories of judicial decisionmaking, there is no question that a number of realists engaged in empirical work, in addition to calling for empirical work to inform judicial and administrative decisionmaking. See Kritzer, supra note 13.

^{61.} See Susan S. Sibley, Law and Society Movement, in Legal Systems of the World: A Political, Social and Cultural Encyclopedia Vol. II: E-L, 8063 (H. Kritzker ed., 2002).

^{62.} Id.

^{63.} Society for Empirical Legal Studies, CORNELL UNIVERSITY LAW SCHOOL, http:// www.lawschoool.cornell.edu/sels/ (last visited Feb. 7, 2014).

^{64.} The Conference on Empirical Legal Studies, University of Pennsylvania Law SCHOOL, https://law.upenn.edu/academics/conferences/cels2013 (last visited Jan. 20, 2014).

^{65.} The Journal for Empirical Legal Studies, Cornell University Law School, http:// www.lawschool.cornell.edu/SELS/Journal.cfm (last visited Jan. 20, 2014).

^{66.} Cf. Thomas S. Ulen, A Nobel Prize in Legal Science: Theory, Empirical Work, and the Scientific Method in the Study of Law, 2002 U. ILL. L. REV. 875, 916 (2002. 67. See discussion in Suchman & Mertz, supra note 7, at 555. 68. For different approaches and their critiques, see, e.g., RESEARCHING SOCIETY AND

CULTURE (Clive Seale ed., 2000); HENRY BRADY & DAVID COLLIER, RETHINKING SOCIAL INQUIRY: DIVERSE TOOLS, SHARED STANDARDS (2d ed. 2010); GARY KING ET AL., DE-SIGNING SOCIAL INQUIRY: SCIENTIFIC INFERENCE IN QUALITATIVE RESEARCH (1994); ROBERT M. LAWLESS, JENNIFER K. ROBBENNOLT & THOMAS S. ULEN, EMPIRICAL METH-ODS IN LAW (2009); DELBERT MILLER & NEIL SALKIND, HANDBOOK OF RESEARCH DE-SIGN AND SOCIAL MEASUREMENT (6th ed. 2002); ANDREW SAYER, METHODS IN SOCIAL Science (2d ed. 1992); Gregory Shaffer & Tom Ginsburg, The Empirical Turn in Interna-

need to be combined with work that has a forward-looking, creative edge.

To illustrate these points, we focus on one prominent group of quantitative empiricists who study judicial decisionmaking. Their work aimed to discover whether judicial decisions are primarily ideological or driven by doctrine. Thus, in a 2008 article entitled The New Legal Realism, Thomas Miles and Cass Sunstein found, based on a quantitative study of appellate decisionmaking, that panels of judges appointed by Democrats tended to be more liberal than panels appointed by Republicans.⁶⁹ This important article reflects two trends in this strand of new legal realism; first, it borrows from other disciplines (here political science literature known as "attitudinalism");70 and second, it uses sophisticated quantitative methods thus identifying new realism with the quantitatively empirical. In this section, we address the advances and the risks in this program. We argue that, while the new legal realism should be grounded in empirical study and engaged in interdisciplinary dialogue, it should not be identified with the notion that law is politics (violating our principles of anti-subsumption and conditional theorizing). We further contend that empiricism should not be limited to the quantitative; it should also embrace studies that attempt to yield facts in areas where measurements are crude or impossible.

Unfortunately for those in quest of certainty, quantitative empirical findings and factual knowledge do not amount to the same thing. Too often, scientifically sophisticated empiricism yields numerical data that can distract from facts less easily measured but far more important. Ironically, it is the most sophisticated quantitative studies that sometimes provide the smallest subset of facts.⁷¹ Normal correlational statistics, upon which quantitative empiricism is often based, requires basic theoretical commitments.⁷² Its inferences are not primarily causal but correlational. This means that quantitative studies often produce precisely the opposite

tional Legal Scholarship, 106 Am. J. INT'L L. 1, 4 (2012) (summarizing the tradeoffs of methods in relation to the study of international law).

^{69.} Miles & Sunstein, *supra* note 4, at 838. Panels of judges appointed by democrats tend to be more liberal than panels appointed by Republicans. Miles and Sunstein advocate the use of panels consisting of at least one judge appointed by each party. *See id.* at 834.

^{70.} Segal & Spaeth, supra note 9, at 86–87 ("This model holds that the Supreme Court decides disputes in light of the facts of the case vis-à-vis the ideological attitudes and values of the justices. . . . The attitudinal model has its genesis in the legal realist movement.").

movement.").

71. Cf. Lee Epstein & Andrew D. Martin, Quantitative Approaches to Empirical Legal Research in Peter Cane & Herbert M. Kritzer, Oxford Handbook of Empirical Legal Studies 907 (demonstrating this principle in an example of a proposed study of female pay equity based on the "work experience" of a woman, reducing it to something quantifiable like "years in the workforce,"—a move which would be controversial on the campaign circuit in America these days, where women's work has been universally acknowledged to take place not only in the workplace but also in the home).

^{72.} Id. ("[N]o matter how good their design, their data, and their methods... the researchers [will not] be able to conclude that their theory is right or wrong.... All they will be able to say is whether their data are consistent with the observable implications following from their theory."). "[O]bservable implications are conceptual claims about the relationship between (or among) variables." Id. (emphasis in the original).

of factual knowledge: correlations are best viewed as *hypotheses* that reflect relationships that may be true or false. Even sophisticated regression analysis is an art, not a science, and, at most, stands upon the claim of rejecting a null hypothesis of no relationship or influence.⁷³ We should know this from the old saw about stock markets and hemlines. Every day, the papers present new "failures of discovery" based on generally accepted statistical techniques as if this were news. To give one example, the *New York Times* reported that the link between gum disease and heart attacks turned out to be false—; well that one should not have been difficult to figure out: age was the confounding factor.⁷⁴ Yet the "awe of the number" never seems to abate.⁷⁵

This risk is true of so-called hard as well as so-called soft statistical sciences. Take genetics. While there are tens of thousands of studies claiming correlations between certain genes and particular diseases or conditions.⁷⁶ The vast majority of these studies have been falsified.⁷⁷ As Stanford epidemiologist John Ioannidis, author of the most viewed article in the Public Library of Science ("Why Most Published Research Findings Are False") explains:

Until five or six years ago, the paradigm was that we had 10,000 papers a year reporting one or more genes someone thought would be important for genetic disease . . . Researchers would claim they

^{73.} On the great difficulties and possibilities of manipulation in regression analysis in terms of variables added and "fit" to particular curves, see D. James Greiner, Causal Inference in Civil Rights Litigation, 122 Harv. L. Rev. 533, 542 (2008) (suggesting that statisticians can easily manipulate the models and variables chosen and must determine their validity post hoc). The claim made here is even simpler: "The null hypothesis is typically that something is not present, that there is no effect, or that there is no difference between treatment and control." Glossary, Null Hypothesis Definition, Berkeley.edu. www stat.berkeley.edu/-stark/SticiGui/Text/gloss.htm (last visited Jan. 20, 2014). This means that rejection of the null hypothesis can involve a very small effect, having no relationship whatsoever to what lay persons consider causal claims or even significant probabilities. Indeed, one is tempted to say that standard non-Bayesian measures of "statistical significance"—typically defined as rejecting the result of chance—can in fact amount in lay terms to factual insignificance. See Ioannidis, supra note 14, at 697 ("The smaller the effect sizes in a scientific field, the less likely the research findings are to be true."). This does not depend upon a large sample: "[O]ne should be cautious that extremely large studies may be more likely to find a formally statistical significant difference for a trivial effect that is not really meaningfully different from the null." Id. at 700. "[I]nstead of chasing statistical significance, we should improve our understanding of the range of R values—the pre-study odds—where research efforts operate." Id. at 701.

^{74.} New Analysis Debunks Connection Between Gum Disease and Heart Attack, N.Y. Times, Apr. 18, 2012, at A18.

^{75.} However, measurement methodologies have become more sophisticated and more reliant on Bayesian statistical modeling that can allow for "learning" based on new data. Bayesian analysis however depends upon critical questions of posterior probabilities, which may be unknown, normalizing, or biased. See Daniel Ho & Kevin M. Quinn, How Not to Lie with Judicial Votes: Misconceptions, Measurement, and Models, 98 CALIF. L. REV. 813 (2010).

^{76.} See, e.g., Lawrence K. Attman, Falsified Data Found in Gene Statistics, N.Y. Times, Oct. 30, 1996, http://www.nytimes.com/1996/10/30/us/falsified-data-found-in-gene-studies.html. See also Victoria Nourse, In Reckless Hands (Norton 2008); Evelyn Fox Keller, The Century of the Gene (2000) (both predicting this).

^{77.} See Victoria Nourse, In Reckless Hands (Norton 2008); Evelyn Fox Keller, The Century of the Gene (2000) (both predicting this).

found the gene for schizophrenia or alcohol addiction or whatever. . . . Something like 99 percent of the literature was unreliable.⁷⁸

Lest one think this is simply an academic lament, history warns of the folly and real danger of translating weak correlational claims into social and political norms. The tortured history of eugenics is by now well-known, and yet claims of disturbing genetic associations do not seem to abate. The use of biological race as a risk factor continues today despite the Human Genome project's finding that all humans are around 99.5% the same irrespective of race. Just in 2007, for example, Palomar et al published a study in a peer-reviewed journal showing a correlation between black sperm and white eggs in the risk of premature birth for white mothers. Loose associations published under the mantel of science are more than troublesome; they can reek, and have reeked, considerable harm, whether they are made in the sphere of what is considered hard science or the softer social sciences. This should operate as an important cautionary tale for any researcher using weak correlational methods.

Of course, we are not the first to critique empirical studies of law. In a highly cited article, Lee Epstein and Gary King criticized empirical studies by law professors for their faulty methodologies and their failure to adhere to rules of inference.81 In some ways, our challenge goes further and applies as well to work that is extremely careful in its methodology but nonetheless risks being extremely misleading, including Epstein's. In their article, Epstein and King make the point that no empirical study is certain.82 Yet despite their warnings, serious risks remain and are endemic to any project using correlational methodologies. We have focused on a single subject matter area—studies of politics of judging—but our critique is generalizable. It rests on the risk with all imported disciplines to make of law a small colony within their own disciplinary geography so that law is reduced to their discipline's terms—a critique that is not limited to political science, but applies as well to sociology, anthropology, and any social science. Second, it is generalizable since it relies upon a critique similar to that made by Professor Isoannidis, which is to say that standard correlational analyses are not, as lawyers often seem to have made of them, proxies for fact.

^{78.} Joan O'Connor Hamilton, Something Doesn't Add Up: Too Much Medicine Relies on Fatally Flawed Research, STANFORD MAG. 55 (May/June 2012) (quoting Ioannidis); Ioannidis, supra note 14, at 696.

^{79.} Osagie K. Obsogie, Race as a Risk Factor 6 (2014 unpublished manuscript on file).

^{80.} Id. at 11 (discussing Lisanne Palomar et al, Paternal Race is a Risk Factor for Preterm Birth, 197 American Journal of Obstetrics and Gynecology 152 (2007)). Palomar et al found: "paternal black race is associated with an increased risk of preterm birth in white mothers, which suggests a paternal contribution to fetal genotype that ultimately influences the risk for preterm delivery." Id. at 152.e1.

^{81.} Lee Epstein and Gary King, *The Rules of Inference*, 69:1 THE UNIVERSITY OF CHICAGO L. REV. 1 (2002).

^{82.} Id. at 37.

These two generalizable problems tend to reinforce each other. The tendency to produce false statistical correlations is exacerbated by the inherent linkage between theory and fact in regression analysis seeking to confirm an existing model.83 Early empirical studies of judicial decisionmaking were often model-driven, not problem-driven, and, consequently, they risked affirming their own embedded theoretical assumptions.84 Take, for example, the original attitudinal model of Jeffrey Segal and Harold Spaeth, which refers to the hypothesis that judges' attitudes, rather than judicial doctrine, determine outcomes.85 This model is a perfect example of one subject to extraordinary bias based on its original assumptions. Its authors coded cases by outcome and then regressed with the appointing party of the judge and found a statistically significant correlation. This finding was taken to mean that judges are influenced primarily by political factors, with legal reasoning being epiphenomenal.86 By choosing outcomes alone, rather than legal factors which are more difficult to measure, these studies eliminated, at the start, other elements as possible explanations that affected outcomes, and the possibility of any dynamic interplay between legal reasoning, future cases, or institutional attributes.87 The attitudinalists' variables shaped what they purported to prove.

Even those who have cited attitudinal studies as prime examples of new legal realism now realize that "there is nothing in the Attitudinal Model, or its critique of the Legal Model, to suggest that the class of legal

^{83.} The highest practitioners of this art admit the highly theoretical components of the practice. See Thomas Kuhn, The Structure of Scientific Revolutions 7 ("Scientific fact and theory are not categorically separable.").

^{84.} On this distinction, see IAN SHAPIRO, THE FLIGHT FROM REALITY IN THE HUMAN SCIENCES (2007) (indicting the methodological blinders of rational choice theory's focus on formal modeling, and calling for a realist, anti-reductivist, problem-driven social research).

^{85.} Segal & Spaeth, *supra* note 9, One of the founders of the Journal of Empirical Legal Studies and an important member of the empirical legal studies movement (which focuses predominantly on quantitative measures), uses "the attitudinal model" as his primary example of empirical legal studies. *See* Heise, *supra* note 4, at 836–37.

^{86.} SEGAL & SPAETH, supra note 9.

^{87.} See, e.g., Gregory C. Sisk, The Quantitative Moment and the Qualitative Opportunity: Legal Studies of Judicial Decision Making, 93 CORNELL L. Rev. 873, 885 (2008) (urging empirical scholars to turn "toward examining and classifying the content of judicial opinions rather than merely counting outcomes in cases."); Barry Friedman, Taking Law Seriously, 4 Persp. on Pol. 261, 266–68 (2006) (criticizing much of the political science literature extant at the time for focusing on bare outcomes); Pauline T. Kim, Lower Court Discretion, 82 N.Y.U. L. Rev. 383, 385 (2007) (noting that "large-scale studies of judicial decisionmaking generally lack . . . a satisfactory account of the law" as an "independent normative force."). Brian Tamanaha contends that "the judicial politics field was born in a congeries of false beliefs" that have "warped its orientation and development," and is subject for those reasons to a "distorting slant" that leads scholars to "exaggerate the influence of politics in judging." Brian Z. Tamanaha, The Distorting Slant in Quantitative Studies of Judging, 50 B.C. L. Rev. 685, 687–89 (2009); see also Hon. Harry T. Edwards & Michael A. Livermore, Pitfalls of Empirical Studies that Attempt to Understand the Factors Affecting Appellate Decisionmaking, 58 DUKE L.J. 1895, 1900 (2009) (In a survey of the "state of empirical analysis of decisionmaking in the federal courts of appeals," concluded that "empirical studies predict very little, if anything, about the effects of extralegal factors on appellate decisionmaking.").

reasons does not at least constrain the possible outcomes."88 Nor can these studies, given their methods, prove what they are often taken to show: political decisionmaking. These studies prove only that the null hypothesis—that political factors have no influence—is wrong.89 Any convincing study would have to show variation in influence across cases (cases where legal reasons appeared to primarily influence the decision as opposed to where they did not) and tribunals while accounting for nonindividual factors such as internal and external institutional influence (otherwise known as things like judicial hierarchy, precedent, and the separation of powers), as well as the experience or phenomenology of judging. As political scientists Daniel Ho and Kevin M. Quinn put it in 2010: "While the debate dons different robes—'law vs. policy,' 'legalism vs. attitudinalism,' or 'formalism vs. skepticism'-perhaps the most salient attribute is that it is overblown, poses a false dichotomy, and has few truly devout adherents on either side."90

The good news about empiricism is that it does not have to assume what it is trying to prove. Empirical studies can produce new analytics, as long as scholars continue to challenge existing findings, focus equally on the variables that have translatable proxies, and refrain from assuming what they are trying to prove. Although there is always a risk of "normaliz[ing] the unexpected,"91 as we emphasize, empirical work has the capacity of both self-revision and emergent analytics. Indeed, this is the clear trajectory of the empirical studies of judging: attempts to replicate the Segal and Spaeth findings turned out to challenge the underlying model. The result is what one might have expected given the assumptions: one asserts that judging is mere politics in robes, at grave risk of error.

Empiricism's capacity for revision in this area can be traced as follows.⁹² In 2002, Herbert Kritzer, a leading political scientist studying law, showed that "jurisprudential regimes" can provide a statistically significant explanation for judicial outcomes.93 The next year Frank Cross, an empirical legal scholar, found that "deference regimes"—rules that

^{88.} Letter, supra note 4, at 190 (emphasis in original).

^{89.} See supra sources cited note 67.

^{90.} Ho & Quinn, supra note 69, at 814.

^{91.} This term is actually associated with the new governance critique of analysis based on efficiency that use "crude categories" and, as a result, tend "to reframe deviant observations in ways that assimilate them to previous understanding." As a result, deviance is normalized. In contrast, new governance treats weak signals as opportunities for learning and increasing regulatory reliability. See Sabel & Simon, Minimalism and Experimentalism, supra note 8, at 62.

^{92.} For example, there are now competing hypotheses between those who assert "principal-agent" models, "strategic models," separation of powers models, and the like. See, e.g., Diana Kapiszewski, Tactical Balancing: High Court Decision-Making on Politically Crucial Cases, 45 Law & Soc'y Rev. 471, 474-75 (2011); Frank B. Cross, Decision Making in the U.S. Courts of Appeals, 91 Cal. L. Rev. 1457, 1461-62 (2003).

93. Mark Richards & Herbert M. Kritzer, Jurisprudential Regimes in Supreme Court Decision Making, 96 Am. Pol. Sci. Rev. 305, 305 (2002). "Jurisprudential regimes structure Supreme Court decision making, 96 Am. Pol. Sci. Rev. 305, 305 (2002). "Jurisprudential regimes structure Supreme Court decision making by actabilishing which case factors are reloant for

ture Supreme Court decision making by establishing which case factors are relevant for decision making and/or by setting the level of scrutiny or balancing the justices are to employ in assessing case factors (i.e., weighting the influence of various factors)." Id.

higher courts must use with respect to lower court decisions—were "a more significant determinant of circuit court outcomes than was judicial ideology."94 By 2005, Michael Heise, one of the leaders of quantitative empirical studies, and legal academic Gregory Sisk reviewed a meta-analysis of the early studies and found that the ideological association touted by the attitudinalists was quite weak—explaining "about seven percent of the variance in judicial voting in the federal courts overall."95 By 2006, Emerson Tiller and Frank Cross, summarized the literature, stating bluntly that "[m]erely coding for the outcome misses most of the importance of the judicial decision," and that "social scientific research seems to be evolving in the direction of increased recognition of the independent significance of legal doctrine."96

Since that time, there has been a veritable explosion of work suggesting that legal variables play a significant role in judicial decisionmaking. But most importantly for our purposes, they represent a shift in emphasis to what we call "conditional" theory, showing variation among judges, institutional forms, and across legal doctrines. Michael Bailey and Forrest Maltzman's 2008 study, for example, used a comparative statistical model and found "strong evidence that legal principles are influential." That same year, Cass Sunstein and Tom Miles found in their study on appellate judging that, despite their findings on political influence, there are significant "panel effects," which is to say that outcomes can be moderated or exacerbated based on the uniformity or disuniformity of the panel.98 Tiller and Cross went further, finding that doctrine dominated ideology where: (1) the panel was not unified in its political ideology and (2) the doctrine supported the view of the political minority judge (in such situations, all the judges followed the doctrine, not their predicted policy preferences).99 In 2009, Brandon Bartels reconceptualized the political science literature by studying how particular legal doctrines, such as different levels of scrutiny, "permit varying degrees of ideological discre-

^{94.} Emerson Tiller & Frank Cross, What is Legal Doctrine?, 100 Nw. U. L. Rev. 517, 519 (2006) (discussing Frank B. Cross, Decisionmaking in the U.S. Circuit Courts of Appeals, 91 Cal. L. Rev. 1457, 1509 (2003)).

^{95.} Gregory C. Sisk & Michael Heise, Judges and Ideology: Public and Academic Debates About Statistical Measures, 99 Nw. U. L. Rev. 743, 770-74 (2005) (reviewing Daniel R. Pinello, Linking Party to Judicial Ideology in American Courts: A Meta-Analysis, 20 Just. Sys. J. 219 (1999)).

^{96.} Tiller & Cross, supra note 84, at 527.

^{97.} Michael A. Bailey & Forrest Maltzman, Does Legal Doctrine Matter? Unpacking Law and Policy Preferences on the U.S. Supreme Court, 102 Am. Pol. Sci. Rev. 369, 381 (2008).

^{98.} Miles & Sunstein, supra note 4, at 838. Panels of judges appointed by democrats tend to be more liberal than panels appointed by Republicans. Miles and Sunstein advocate the use of panels consisting of at least one judge appointed by each party. See id. at 834.

^{99.} Tiller & Cross, supra note 84, at 521 (describing their findings in Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals, 107 YALE L.J. 2155 (1998)).

tion" in the U.S. Supreme Court. 100 Additionally, more recent work by political scientist and law professor David Law and David Zaring found that legal factors can have a predominant effect on particular legal questions (in this case on the citation of legislative history), outweighing the significance of ideology, even in the Supreme Court where the attitudinal hypothesis has been viewed as the strongest.¹⁰¹ In 2012, Corey Yung found in a study of 10,000 appellate cases that "ideology has a limited role in decisionmaking at the federal appellate level," but that existing data could be used to measure a new concept, partisanship (that is, judicial activism as a departure from mean judicial outcome), rather than ideology.102

The lesson here is that conditional theory and emergent analytics are essential to craft empirical work that is more than statistical gossip. 103 This is particularly true given the bias quantitative studies have for the past rather than the future. If the factors used to code material are taken from the past, they will carry with them the past. If studies assume implicit causal claims that they are trying to study, they will carry forward those causal claims in correlational form. Take an example from the hard sciences. Until very recently an old idea of the gene persisted that included within it a strong causal claim; the very idea of the gene was a "determiner." 104 Because this old idea of the gene never died, nearly a

104. Keller, supra note 71. Lest the reference to genetics seems completely odd, one might note that the American Journal of Political Science in 2010 published an article suggesting that there are "genetic" influences for political beliefs, a claim that could only rise

^{100.} Brandon L. Bartels, The Constraining Capacity of Legal Doctrine on the U.S. Supreme Court, 103 Am. Pol. Sci. Rev. 474, 474 (2009) (arguing that strict scrutiny "significantly constrains ideological voting" while intermediate scrutiny and "low scrutiny" categories "promote high levels of ideological voting").

^{101.} David S. Law & David Zaring, Law Versus Ideology: The Supreme Court and the Use of Legislative History, 51 Wm. & MARY L. Rev. 1653, 1654 (2010).

102. Corey Rayburn Yung, Beyond Ideology: An Empirical Study of Partisanship and Independence in the Federal Courts, 80 Geo. Wash. L. Rev. 505, 552 (2012) (surveying 10,000 cases from 11 U.S. courts of appeals and finding various tilts toward partisanship, including appointments by Presidents Ronald Reagan and George W. Bush and prior legistics. lative or executive experience). Basically, Yung has sought to shift coding away from ideology as measured by the outcomes of cases and measure (which has been suspect for some time) and toward the relative agreement or disagreement among judges on the appellate and district courts, something which can be quantified rather easily and depends upon a relative/comparative/conditional measure. See also Corey Rayburn Yung, Judged by the Company You Keep: An Empirical Study of the Ideologies of Judges on the United States Courts of Appeals, 51 B.C. L. Rev. 1133 (2010) (suggesting slightly different findings from the 2012 study).

^{103.} This is certainly not to say that the attitudinal model has gone away in the legal or the political science literature. See Matthew Sag et. al., Ideology and Exceptionalism in Intellectual Property: An Empirical Study, 97 CALIF. L. REV. 801, 847 (2009) (finding that "ideology is a significant determinant of whether an individual justice will vote for or against an IP [intellectual property] owner"). Since 2005 or so, it is more likely that adherence will be expressed, but caveats will be issued. See, e.g., Frank Cross, The Ideology of Supreme Court Opinions and Citations, 97 IOWA L. REV. 693, 697 (2012) ("In political science, there is now a widespread view that the Supreme Court Justices 'should be viewed as promoters of their personal policy preferences rather than as interpreters of the law."); but see id. ("The empirical evidence does not suggest that Justices are simply politicians or purely ideological."); id. ("This combination of law and ideology illustrates the importance of opinions.").

decade after 2000 and the mapping of the genome, studies were published based on overzealous claims of statistical correlation because a causal claim was built into the very idea of the gene. The obvious analogy to the work on the politics of judging is that attitudinalists assumed an old (supposedly realist) idea of the judicial decision in which ideology was a determiner and chose to study cases most likely to reproduce that assumption. Assumptions went in, and they came out. Let there be no confusion: we make no claim that doctrine always decides cases, but we do believe that factual claims about the relationship of politics to partisanship are only likely to emerge from studies that are not question-begging, that ground their claims in conditional predictions based on variation across contexts.

Our argument should not be read as an indictment of the considerable empirical work outside of the law and politics of judging that addresses important issues of law and policy across issues and substantive areas of national and international law. 106 As we have said, our critique of these particular studies and their empirical methods should not obscure our 'pro-empirical" position. Even great statisticians understand the power of context and conditions: this is the great insight of Bayesian analysis, which is a form of "conditional probability." Similarly, empirical work in the law must be wary of hidden context or what we have called "disciplinary subsumption": studies reducing law to other disciplines whether politics or linguistics or cognitive science must consider whether they are simply trying to colonize law, to make it look like the authors' discipline. In law, empirical work must aim towards a more humble conditional theory openly interrogating its assumptions and acknowledging contextual variation. One way of achieving both of these ends is to build concepts out of the data (emergent analytics) rather than impose those concepts on the data.

There is no empirical study, whether it is a large N study, an intensely rich "thick description," or a multi-method study, 108 that does not make assumptions in need of constant theoretical attention and a reflexive criti-

876-96 (Peter Cane & Herbert Kritzer eds., 2010).

to the level of "science" based on the nature of the methodology at use. Peter K. Hatemi et al., Not by Twins Alone: Using the Extended Family Design to Investigate Genetic Influence on Political Beliefs, 54 Am. J. of Pol. Sci. 798 (2010).

on Political Beliefs, 54 Am. J. of Pol. Sci. 798 (2010).

105. Keller, supra note 71. (gene-as-determiner is the eugenic ideal and is false).

106. See the chapters in The Oxford Handbook of Empirical Legal Research

^{107.} John Allen Paulos, Once Upon a Number: The Hidden Mathematical Logic of Stories 69 (1998) ("Conditional probabilities are probabilities in the light of, or given, certain evidence. The probability of a randomly chosen adult weighing less than 10 pounds is, let's assume 25 percent. The conditional probability that someone weighs less than 130 pounds given that he or she is over 6 feet 4 inches tall is, I would estimate, much smaller than 5 percent. Note also that the conditional probability that one can speak Spanish given that one is a citizen of Spain, let us say, approximately 95 percent, whereas the conditional probability that one is a Spanish citizen given that one can speak Spanish may be less than 10 percent.").

^{108.} See Laura Beth Nielson, The Need for Multi-Method Approaches in Empirical Legal Research, in The Oxford Handbook of Empirical Research, supra note 13, at 951–75.

cal gaze regarding its assumptions—the very facts it claims to measure. 109 This is particularly important to recognize in a changing world in which novel facts and contexts, constantly arise due to human interventions, and where the aim of empirical work should be to help respond to these new social challenges. Enter our next topic—new governance experimentalism. As we will see, experimentalism highlights the way that problems are solved through an iterative process encouraging learning. By definition, a focus on learning means that new ideas and concepts (what we call emergent analytics) will arise. What empirical legal studies needs to learn from new governance experimentalism is that particular institutional contexts and the dynamics of experiential learning matter. When one finds a set of empirical data that does not fit old concepts, the idea to learn from the data, and to experiment with new ways of conceptualizing the data.

B. New Governance Experimentalism

If "empirical legal studies" has shown a strong presence in the legal literature in the past decade as part of a new legal realism, so too has the movement known as "new governance." The new governance literature is now vast and cuts across subject areas, from contract law to criminal law, environmental law to consumer protection law, industrial policy to intellectual property law. Pioneered in various forms, the movement has coalesced around work emerging from management theory and has an avowedly experimentalist emphasis. Coined by different descriptors, such as responsive regulation, modularity, and new governance, these approaches all fall within the compass of experimentalism. In this section, we explain the important contributions these studies have made and the limits in which they operate, emphasizing (as we have in the context of legal empiricism) the need for conditional theory and emergent analytics as complements while paying careful attention to the role of formal law and its normativity.

Experimentalism has a history that reaches back to the original legal realists. Faced with a massive worldwide depression, traditional common law doctrine seemed radically insufficient to address the world's problems. The original realists stressed the virtues of experimentalism, reflected in Holmes' famous dissent in *Abrams v. United States* where he stressed that even the Constitution "is an experiment, as all life is an experiment. Every year if not every day we have to wager our salvation upon some prophecy based upon imperfect knowledge." As Jerome Frank underscored, he saw himself and the other "experimental jurisprudes" as the "humble servants to the master experimentalist, Franklin Roosevelt." The legal realists, in Laura Kalman's words, "employed an imaginative, modern, experimental approach to problem solving and to

^{109.} Nourse & Shaffer, supra note 2.

^{110.} See supra sources cited note 8.

^{111.} Abrams v. United States, 250 U.S. 616, 630 (1919).

^{112.} G. EDWARD WHITE, supra note 18, at 275.

expanding the role of the welfare state."113

New experimentalists address a new context involving rapid technological change and in which the pluralist interest group model of the New Deal has been broken, regulators have been captured by the regulated. and agency procedures have become ossified. These theorists aim to bring together regulators and stakeholders in iterative processes, with formal law and procedures in the background, operating less as direct command than as an incentive to reach cooperative solutions. New governance refocuses attention on local context while envisioning conditions for deliberative engagement among officials and stakeholders to enhance learning and coordination.¹¹⁴ In this sense, new governance upends the old realism's administrative state. Yet it does so in light of a new context characterized by increased informational volatility, technological uncertainty, and diversity of challenges in which the New Deal state is insufficient and under challenge. To go back to Holmes, experimentalism must respond to the "felt necessities of the time." 115 By focusing on learning and innovation in a world of uncertainty and dynamic change, new governance theorists implicitly put the need for emergent analytics front and center.

Ian Ayres and John Braithwaite's Responsive Regulation represented a major preview of the experimentalist impulse. 116 There, they addressed the need to combine decentralized collaborative processes involving regulators, firms, and other stakeholders, with traditional command and control measures held in reserve as part of an enforcement pyramid, triggered only against recalcitrant firms. The use of different regulatory tools, of adjusted stringency would vary in light of industry structure and practice. Government intervention is minimized to motivate firms to advance regulatory goals and escalates when firms serially misbehave. In parallel, citizen groups are empowered to oversee the overseers, giving rise to tripartite governance involving interaction between the regulators, the regulated, and citizen groups. Regulatory practices and citizen oversight provide firms with incentives to self-regulate in innovative ways to meet regulatory goals, reducing costs for both regulators and firms.¹¹⁷

More recently, the aim of new governance theorists, such as Charles Sabel and William Simon is to combine local experimentation with centralized processes overseeing local practices that, in turn, can feed back into the reconsideration of the legal norms at issue. As they write, in ideal-type terms, "[i]n experimentalist regimes, central institutions give

^{113.} Laura Kalman, The Strange Career of Legal Liberalism 17 (1996).

^{114.} See, e.g., Sabel & Simon, Minimalism and Experimentalism, supra note 8, at 55.
115. OLIVER WENDELL HOLMES, THE COMMON LAW 1 (1881).
116. IAN AYRES & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE (1995).

^{117.} They likewise built from the earlier concept of "responsive law" of the law and society scholars Philippe Nonet and Philip Selznick, but differentiating their approach in terms of an enforcement pyramid in which centralized enforcement remained with its stick. Cf. Philippe Nonet & Philip Selznick, Law and Society in Transition: Toward RESPONSIVE LAW (1978).

autonomy to local ones to pursue generally declared goals. "The center then monitors local performance, pools information in disciplined comparisons, and creates pressures and opportunities for continuous improvement at all levels." The center establishes framework goals and measures to gauge achievement; it gives local units discretion to determine how to attain these goals; and these local units, as a condition for such autonomy, must report to each other and the center, and participate in peer review processes aimed at both continual improvement and potential reassessment of the goals. 119 As Brad Karkkainen writes, while the government's traditional role has been highly rule-based and top-down, under a new governance architecture, the central government "devolves most operational authority to decentralised units but insists on transparency and accountability for performance and retains the right to intervene . . . in the event of palpable failure." 120

New governance techniques have been used in the United States (U.S.), and extensively in Europe. The European Union (E.U.) now consists of twenty-eight countries speaking twenty-four official working languages. Its laws aim to facilitate a single European market, on the one hand, while providing for social protection, on the other. Implementation depends on national and local action in light of considerable diversity. resulting in the adoption of new governance experimentalist techniques, ranging from E.U. framework directives, that provide flexibility for national implementation and are backed by committee-based peer review consisting of networks of state officials and European Commission staff to looser forms of experimentalist regulatory approaches, such as the EU's Open Method of Coordination. 121 To be successful, these experimentalist techniques are designed to create incentives for participants to engage with each other in problem-solving. In the U.S., they can take the form of conditional grants, as under the Obama Administration's Race to the Top program for educational reform, or penalty defaults, as applied under the U.S. Endangered Species Act when developers fail to conclude a Habitat Conservation Plan with local stakeholders. 122 Beyond the U.S. and E.U., Kenneth Abbott and Duncan Snidal argue that the new governance model should be especially valuable at the international level in light of the difficulties of agreeing to international law, " the relatively weak international institutions to enforce it, and the challenges for developing countries to implement it because they "lack essential capacities for

^{118.} Sabel & Simon, Minimalism and Experimentalism, supra note 8, at 55.

^{119.} Id. at 79.

^{120.} Karkkainen, supra note 8, at 316.

^{121.} See, e.g., Gráinne de Búrca & Joanne Scott, Introduction to Narrowing the Gap?: Law and New Approaches to Governance in the European Union, 13 Colum. J. Eur. L. 513 (2007) (examining how new governance in the European Union has affected the understanding of the law and the role of law); Charles Sabel & Jonathan Zeitlin, Learning from Difference: The New Architecture of Experimentalist Governance in the EU, 14 Eur. L.J. 271 (2008).

^{122.} Karkkainen, supra note 8, at 876-79.

traditional regulation."123

Both Ayres and Braithwaite, in their advocacy of "responsive regulation," and Sabel and Simon, in that of new governance, respectively, look back to old legal realist predecessors and the underlying pragmatist philosophy of John Dewey. Braithwaite and Ayres turn to Llewellyn for inspiration and Llewellyn's focus on context and commercial practice, writing:

The drafting of the Uniform Commercial Code was a self-conscious attempt (by Karl Llewellyn) to synthesize formal law and commercial usage: the formal law would incorporate the best commercial practice and would in turn serve as a model for the refinement and development of that practice. The Code's broadly drafted rules would be accessible to businessmen and would provide a framework for self-regulation which would in turn furnish attentive courts with content for the Code's categories. Thus the Code would serve as a vehicle for business communities to evolve law for themselves in dialogue with the courts. 124

Sabel and Simon, in turn, look to Dewey's philosophy of pragmatism, building from his claim that "policies should be 'experimental in the sense that they will be entertained subject to constant and well-equipped observation of the consequences they entail when acted upon, and subject to ready and flexible revision in the light of observed consequences."125 They take from these insights and apply them to the context of the modern regulatory state.

Like empirical legal studies, new governance theory nonetheless confronts a number of challenges. On the one hand, it must not lose sight of the particular ways in which formal law frames experimentalism, since formal law and institutional design are central to overcome problems of biases and opportunism in stakeholder participation in new governance projects. On the other hand, it must engage with empirical studies regarding the conditions and limits under which experimentalism operates. In short, new governance theorizing and empirical legal studies must be placed in productive tension so that they can complement and dialectically build from each other.

The Need to Account for Formal Law

What role does formal law play in new governance? Consider, as an example, the Endangered Species Act. Under the Endangered Species Act, as amended in 1982, private developers risk severe penalties if they do not conclude a Habitat Conservation Plan with local stakeholders, and they must report the plan to the responsible agency. In this way, the En-

^{123.} Abbott & Snidal, supra note 8, at 508-10. See also Grainne de Burca, Robert Keohane & Charles Sable, New Modes of Pluralist Global Governance, 45 J. INT'L L. AND Politics 1 (2013) (assessing "global experimentalist governance" as a third mode). 124. Ayres & Braithwaite, *supra* note 104, at 3.

^{125.} Sabel & Simon, Minimalism and Experimentalism, supra note 8, at 78.

dangered Species Act operates as a background norm that forces private developers to negotiate with environmentalists. ¹²⁶ With this as a prime example, some might question how new governance differs either from the basic economic notion that parties will learn to contract around legal norms, ¹²⁷ or the old law and society notion that parties "bargain in the shadow of the law." ¹²⁸ The answer is that in new governance classic formal law and state coercion act as catalysts. It is the background coercive threat of formal law that incentivizes developers to negotiate construction limits, but this aspect of law is only a small (though still important) part of a larger new governance process in which the focus is on practice and learning from it.

New governance advocates have radically changed the emphasis away from coercion and a centralized Washington agency model. Their focus is on catalyzing change rather than litigating change. Rather than top-down centralized rules, the emphasis is on the application of law by stakeholders in a local context with the centralized agency playing the role of convener and catalyst, offering legal frameworks and benchmarks, providing a common forum and focal point for exchange, comparing different plans, and sharing successful outcomes. The emergent findings from such practice in turn can be fed back into the formal legislative and administrative process to change background legal norms. Unlike contracting around the law, law provides a normative focal point designed to catalyze deliberation and problem-solving. Unlike bargaining in the shadow of the law, the causal arrows in new governance theory go in both directions. In one direction, law shapes bargaining by requiring the giving of reasoned justifications that can facilitate deliberation. In the other direction, bargaining and induced deliberation can shape the next iteration of law. 129

New governance theorists focus on innovations in institutional architecture outside the traditional American administrative mode of command and control. They emphasize harnessing the participation of

^{126.} William H. Simon, Wisconsin Law Review Symposium Afterword Part II: New Governance Anxieties: A Deweyan Response, 2010 Wis. L. Rev. 727, 729–30. Environmental groups may critique this amendment because it provides for an exception under the Endangered Species Act. However, if no compromise had been reached, the alternative may have been a more significant exception provided in the Act, without the ability of stakeholders to engage with each other.

^{127.} R. H. Coase, The Problem of Social Cost, 3 J.L. & Econ. 1 (1960); Robert C. Ellickson, Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County, 38 STAN. L. REV. 623 (1986).

^{128.} Marc Galanter, Worlds of Deals: Using Negotiation to Teach About Legal Process, 34 J. Legal Educ. 268, 268 (1984); Robert Mnookin & Lewis Kornhauser, Bargaining in the Shadow of the Law: The Case of Divorce, 88 Yale L.J. 950 (1979). Herbert Kritzer, Let's Make a Deal: Understanding the Negotiation Process in Ordinary Littgation 73–75, 103–104, 132–133 (1991) (noting that the shadow of the law is also "the ability to impose costs on the opponent and the capability of absorbing costs"); Herbert Jacob, The Elusive Shadow of the Law, 26 Law & Soc'y Rev. 565, 586 (1992) ("The language in which a claim is initially framed combined with the manner in which attorneys are used and the success of consultation with personal networks are perhaps the key variables in determining the strength of the shadow of the law.").

^{129.} We thank Joanne Scott for this point.

affected groups within that architecture so that these groups can collectively consider and devise responses to contexts unknown to the initial architects. These are compelling attributes of new governance theory in a world characterized by uncertainty, rapid change, and partisan gridlock in Washington. Nonetheless, as with the empiricists studying judging, there is a risk if experimentalists do not carefully attend to the critical role of formal law. After all, new governance efforts would not be legal' regimes if they did not depend upon legal incentives and commands to induce experimentalist organizational efforts in the first instance. When formal law is not in the background, new governance techniques can lose both legitimacy and efficacy, as we discuss next.

We thus stress the importance of empirically assessing the varying but important role that formal law plays, even in the background, to frame and provide a regulatory floor with penalty defaults for experimentalist programs.¹³¹ How precisely does law operate as a catalyst? Under what design regimes are feedback loops most successful? How can law change given the extraordinary roadblocks in Congress? These are the types of challenges with which new governance theory and regime design must cope, and where empiricism and conditional theorizing offer needed complements to new governance experimentalism.

2. Stakeholder Bias and the Legitimacy of New Governance

A second well-known challenge for new governance is whether the regimes are sufficiently inclusive or subject to stakeholder bias, calling into question their legitimacy. As Sabel and Simon recognize, "experimentalist regimes depend on the controversial premise that public administration can integrate frontline discretion and stakeholder participation in a

^{130.} See, e.g., Jody Freeman & Ronald H. Farber, Modular Environmental Regulation, 54 Duke L.J. 795, 795 (2005) (described below, where the project was prompted by the inducement of federal money).

^{131.} Karkkainen, *supra* note 8; Cameron Holley, Neil Gunningham and Clifford Shearing, The New Environmental Governance 174 (2013) ("carefully designated incentives are crucial to the success of NEG").

^{132.} See, e.g., Daniel Augenstein, Integration Through Law Revisited: The Making of the European Polity 152–53 (2012); Mark Dawson, New Governance and the Transformation of European Law: Coordinating EU Social Law and Policy (2011); Douglas Nejaime, When New Governance Fails, 70 Ohio St. L.J. 323, 324 (2009); David A. Super, Laboratories of Destitution: Democratic Experimentalism and the Failure of Antipoverty Law, 157 U. Pa. L. Rev. 541 (2008); Richard Elmore, Details, Details, 28 N.Y.U. Rev. L. & Soc. Change 315 (2003); Mark Tushnet, A New Constitutionalism for Liberals, 28 N.Y.U. Rev. L. & Soc. Change 357 (2003); César A. Rodríguez-Garavito, Global Governance and Labor Rights: Codes of Conduct and Anti-Sweatshop Struggles in Global Apparel Factories in Mexico and Guatemala, 33 Pol. & Soc'y 203, 205 (2005) (criticizing the "the governance paradigm" for paying insufficient attention to "the problems created by large power asymmetries among the nonstate actors . . . who are supposed to engage in deliberation and collaboration within governance systems"); Martha Minow, School Reform Outside Laboratory Conditions, 28 N.Y.U. Rev. L. & Soc. Change 333 (2003); Mark Tushnet & David Kennedy, Remarks for the "New Governance Workshop" at the Harvard Law School, Feb. 25–26, 2005, available at http://www.law.harvard.edu/faculty/dkennedy/speeches/remarks.pdf.

disciplined, accountable manner."133 One anxiety is whether new governance practice will turn into a form of corporatism of the early New Deal variety. 134 This kind of delegation resulted in powerful interests squelching those of the less powerful, even as it advanced some important policy agendas (often those that the government was only able to press upon business through background command and control regulation: e.g., codes mandating the recognition of unions and collective bargaining; or requiring the listing of securities overseen by a public authority). 135

New governance experimentalists place great emphasis on stakeholder self-regulation. Yet, if the engagement of stakeholders is skewed, then the results will be skewed, raising legitimacy challenges in terms of participation and distributive outcomes. Take health care reform. One of the great foci of certain experiments touted by new governance is the notion of agreements with government agencies pursuant to which private institutions self-regulate. But what if the major players simply ignore the average individual who purchases health care insurance? The institutions may find the resulting agreement in their interest, but the overall system may disadvantage individuals relative to other institutional arrangements. If individual stakeholders are not considered, then the ultimate regulation may not be responsive in the ways that new governance advocates hope. The risk of outsourcing important aspects of financial regulation to rating agencies and capital adequacy determinations to banks, provide further examples. 137

All of this suggests important comparative gains from new governance experimentalism under certain conditions but does not do away with collective action challenges. The political science literature is full of fears that even the most basic majoritarian systems are skewed towards those with the power to set the agenda. The strongest claims of this literature were long ago felled—the challenges of Arrow's theorem (predicting the impossibility of rational democratic outcomes), for example, can be addressed through institutional arrangements that obtain equilibrium.¹³⁸

^{133.} Sabel & Simon, Minimalism and Experimentalism, supra note 8, at 56.

^{134.} Label, The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought, 89 Minn. L. Rev. 342, 443 (2004).

^{135.} See Investigation of the National Recovery Administration: Hearings on S. Res. 79 Before the S. Comm. on Finance, 74th Cong. 298 (1935) (statement on Clarence Darrow on his study of the early NRA).

^{136.} See, e.g., Ayres & Braithwaite, supra note 104, at 101.

^{137.} See, e.g., Tim Sinclair, The New Masters of Capital: American Bond Rating Agencies and the Politics of Creditworthiness (2005); Sheila Bair, Bull by the Horns: Fighting to Save Main Street from Wall Street and Wall Street from Itself 27 (2012).

^{138.} Kenneth A. Shepsle & Mark Bonchek, Analyzing Politics 57-69 (1st ed. 1997) ("Procedures are required to cut through all this instability," given that "there is no equilibrium to majority voting."); see Kenneth A. Shepsle & Barry R. Weingast, Positive Theories of Congressional Institutions, in Positive Theories of Congressional Institutions 5, 7 (Kenneth A. Shepsle & Barry R. Weingast eds., 1995); Kenneth A. Shepsle, Institutional Arrangements and Equilibrium in Multidimensional Voting Models, 23 Am. J. Pol. Sci. 27, 27 (1979) (offering a model of legislative behavior that results in "equilibrium").

Newer work in philosophy shows that the logic on which Arrow's theorem is based may be replaced by various heuristics and substitutes that defy the irrationalists' fears.¹³⁹ Nevertheless, the new governance literature must continue to address how experimental governance regimes may overcome collective action problems and real agenda-setting possibilities that have been the intense object of interest of economists and political scientists. Just as with empiricism, if the input is skewed, then the output will be as well. Such risks highlight the importance of institutional design, the role of formal law in that design, and conditional theorizing.

3. The Efficacy of New Governance: The Need for Conditional Theory and Complementary Empirical Work

The challenge for new governance experimentalism is the same as for the old: the need for conditional theorizing building from empirics. Empirical work thus offers a valuable complement. The answer to the challenge of experimentalism's limits, as in the case of empiricism itself, is more empirical work, not less, and precisely the kind of empirical work to which we have adverted—work, in this case, that addresses the conditions when participation is skewed and when it is not; work that may lead to new understandings of how collective negotiations create their own dynamics worthy of analytic understanding and investigation; work on how significant legal innovation can be "learned" and entrenched without the intervention of an inert legislative branch or sclerotic administrative one. We need conditional legal theorizing, on the one hand, and emergent analytics, on the other. That is, we need theorizing that addresses variation in the efficacy of new governance mechanisms in different combinations with traditional ones in light of different contexts, and that itself is revisable in light of changing experience.

The good news is that an increasing number of empirical studies assess new governance regimes in this light. Daniel Farber and Jody Freeman, for example, explain at length about how the CalFed water project in California has led to advances in addressing conflicting agendas over various policy goals.¹⁴⁰ That project addressed an array of issues affecting different stakeholders, including water diversion for agricultural and municipal use, water quality, species preservation, and other environmental goals.¹⁴¹ The project created an institutional process to gather new information and measure progress about what worked, feeding that informa-

^{139.} Christian List & Phillip Pettit, Group Agency (2011).

^{140.} Freeman & Farber, supra note 118. For their earlier work in a pragmatist vein, see, e.g., Daniel Farber, Eco-Pragmatism (1999) (advocating dynamic regulation involving regulatory contracts); Jody Freeman, Collaborative Governance in the Administrative State, 45 UCLA L. Rev. 1 (1997). For a more critical view of the project, see Judith Layzer, Averting Ecological Collapse in California's Bay-Delta, in Natural Experiments: Ecosystem-Based Management and the Environment 137–72 (2008). Another water project that appears to be successful and should be studied is the San Joaquin River Restoration Program (SJRRP), explained at http://www.restoresjr.net/.

^{141.} Freeman & Ferber, supra note 118, at 838-39.

tion back into decision-making.¹⁴² The process faced setbacks; but its complementary transactional approach resulted in numerous achievements.¹⁴³

Exemplifying emergent legal analytics, Freeman and Farber derive a new legal idea out of their empirical review, an idea they call "modularity."144 Modularity involves the adaptation of different institutional designs to different contexts involving a mix of formal and informal regulatory tools (including traditional regulation and contract-like undertakings) with input from and coordination with affected stakeholders and a focus on problem-solving. 145 From the perspective of modularity, one does not need to design wholly anew, but can take, rearrange, and adapt different parts, building from experience. 146 Modular architectures can facilitate adaptation and social learning in an accountable manner. 147 Modular regulation does not necessarily displace cost-benefit analysis, bottom-line rules, or sanctions, but it does refocus attention on designing institutions through adapting modules from experience to address problem areas involving multiple facets. 148 It is unclear whether "modularity," which is taken from the management literature, will become a defining concept, but it is a good example where we see the value of intensive factual investigation of a regulatory project engaging multiple agencies and stakeholders that are often in conflict, and which focuses on problem-solving. In the process, Freeman and Farber build a theory that can be applied across issues that demand flexible adaptation applied to new problems while building from prior experience.

Not all empirical studies are rosy about experimentalist programs. Cary Coglianese and Jennifer Nash, for example, tracked a flagship incentive-based environmental program, known as National Environmental Performance Track, which was launched by the Clinton administration and discontinued under the Obama administration. The Performance Track sought to instill a sense of competition for good outcomes by providing rewards to industry leaders and punishing industry laggards. Participants applied to the EPA; the agency then determined whether the applicants met Performance Track standards. If they did, EPA lauded the company and designated it as a low inspection priority. At least on the surface, the project appears to reflect many new governance qualities: it emphasizes stakeholder relations, learning, and voluntary regulation.

^{142.} Id. at 847-54.

^{143.} Id. at 866-76 (noting the risks if a Republican administration gains power in California).

^{144.} Id. at 798.

^{145.} Id. at 798-99.

^{146.} Id. at 799.

^{147.} Id. at 883.

^{148.} Id. at 799.

^{149.} Cary Coglianese & Jennifer Nash, Performance Track's Post-Mortem: What Can We Learn from the Rise and Fall of EPA's Flagship Voluntary Program (on file with the authors). See also Jonathan Borck & Cary Coglianese, Voluntary Environmental Programs: Assessing Their Effectiveness, 34 Ann. Rev. Envil. Resources 305, 317–18 (2009).

Coglianese and Nash, however, found the project was largely a failure. Based on quantitative data and qualitative interviews (using "matching" techniques to mirror control group models), they found that the program did not reward improved environmental performance, but those companies which aimed to gain public recognition for environmental outcomes (which they call "extroverts").¹⁵⁰ In short, stakeholder skew rendered the program far less efficacious than its proponents had hoped and claimed.

Given the concerns we have already raised about quantitative empirical claims, it follows that we are concerned about analogous phenomena in the context of new governance experimentalism. The stakeholder bias problem is simply a version of skewed inputs yielding skewed outputs in any empirical inquiry. Once more, however, such bias is only capable of being revealed by more empirical study, not less. As noted by Coglianese and Nash, the program's critics informed the government that the rewarded companies were not necessarily improving the environment and that correlation was not causation. Coglianese and Nash followed up by reassessing the numbers and conducting qualitative interviews and surveys of the participants to determine why they did in fact what they did. This experiential aspect was central to confirming what the data showed, which was stakeholder (or, in this case, applicant) bias. In their words, "we find that what most distinguished Performance Track facilities was the value they placed on government recognition and the propensity they had for seeking out and engaging with environmental and community organizations," not improved environmental outcomes. 151

To the extent new governance is interpreted as a call for displacing command and control regulation with stakeholder self-regulation, it should be considered with skepticism. We view this, however, as a simplistic one. A close reading of the new governance literature shows that it makes conditional claims, acknowledging that there is a place for formal law in experimentalist regimes. Experimentalists thus note the importance of centralized programs, such as food stamps and social security, as "a component of a broader array of programs," but stress that these centralized programs are not sufficient to address the broader challenges of poverty reduction and the need to build individuals capacity to respond to deep economic. The result is a call for hybrid forms of governance involving both hard and soft law while stressing the importance of soft law mechanisms to facilitate social and regulatory learning.

^{150.} See also Robert Kagan et al., Explaining Corporate Performance: How Does Regulation Matter?, 37 Law & Soc'y Rev. 73 (2008) (conducting a comparative study of participating and non-participating facilities in voluntary environmental programs and addressing the role of managers' disposition toward the value of government recognition).

^{151.} Coglianese & Nash, supra note 137, at 9-10.

^{152.} Sabel & Simon, Minimalism and Experimentalism, supra note 8, at 72.

^{153.} See, e.g., David M. Trubek, Patrick Cottrell & Mark Nance, "Soft Law," "Hard Law," and European Integration: Toward a Theory of Hybridity, in Law and New Governance in the EU and the US, supra note 4, at 65; Cameron Holley & Neil Gunningham, Natural Resources, New Governance and Legal Regulation: When Does

Edward Rubin has illuminated the need for conditional theorizing on new governance in assessing certain "boundaries" in which experimentalism is likely to operate efficaciously. 154 At the macro level, Rubin notes how, over time, firms can adapt to regulation to become more collaborative (what he calls socialization through a "regulatizing process") as actors within firms develop skills to work within a given regulatory context and, in the process, find that the impacts on the firm are not as limiting as their predecessors once believed. 155 At the micro level, he notes how different firms can have different dispositions with some being more intractable than others. 156 This simultaneous focus on the macro and micro depicts why experimentalist innovations need to be combined in different ways with traditional command and control mechanisms, involving sequencing and variation in light of the firms at issue. Rubin applies his theory to the regulation of the commercial airline industry by showing how firms evolved over time in their views toward airline regulation, and how sanctions were needed to discipline recalcitrant firms until they adapted, reflecting the "tit for tat" strategy advocated by Ayres and Braithwaite as part of responsive regulation.¹⁵⁷

Similarly, Coglianese and David Lazer have addressed the factors that call for management-based regulation in relation to performance-based regulation (which mandates outputs, such as meeting an emissions standard) and technology-based regulation (which mandates inputs, such as use of a technology, or best available technology). 158 Building conditional theory, they contend that the type of regulation chosen should be a function of a regulator's capacity to assess desired outcomes and firm homogeneity. Where firm homogeneity is low and regulator capacity high, they maintain that performance-based regulation is best because of greater certainty across contexts. Where firm homogeneity is high and regulator capacity low, then technology-based regulation is best because although there is less certainty the contexts are similar. In contrast, they maintain that where there is both low regulator capacity to assess optimal outcomes and high firm heterogeneity, then management-based regulation should play a greater role so it can promote learning in relation to varying contexts.

Collaboration Work?, 24 N.Z. U. L. Rev. 309, 309 (2011) (empirically evaluating by comparing two natural resource management programs in New Zealand).

^{154.} See Edward Rubin, The Regulatizing Process and the Boundaries of the New Public Governance, 2010 Wis. L. Rev. 535 (2010).

^{155.} Id. at 549.

^{156.} See also Neil Gunningham & Darren Sinclair, Organizational Trust and the Limits of Management-Based Regulation, 43 LAW & Soc'y Rev. 865 (2009) (noting that individual facilities within a firm can vary in light of management culture and comparing different mine sites).

^{157.} Rubin, supra note 142, at 567-87; Ayres & Braithwaite, supra note 104, at 5.

^{158.} See Cary Coglianese and David Lazer, Management-Based Regulation: Prescribing Private Management to Achieve Public Goals, 37 Law and Society Rev. 691 (2004). The management-based regulation they study can be viewed as a subset of new governance in the private stakeholders in developing regulatory policy.

Despite real world limitations, new governance experimentalism must be assessed in comparison with traditional mechanisms in light of the need for adaptation and local implementation in a world of varying contexts and rapid change. Often these tools will be used as complements involving different hybrid and modular combinations in light of context and experience. Experimentalist governance is not a panacea; but it does rightly invoke the need for institutional designs to facilitate stakeholder participation, coordinated engagement, transparent reporting, and ongoing reevaluation of practices and strategies to address regulatory problems, from which we learn and act.

IV. EMPIRICAL INQUIRY AND EXPERIMENTALISM AS COMPLEMENTS: TOWARD A DYNAMIC NEW LEGAL REALISM

In this article, we have attempted to analyze the virtues and potential vices of two critical strands of a new legal realism to address law's operation in the world. These strands are in tension with each other, one being past-looking and the other forward-looking, one studying context and the other engaging in trials to change it. They are both essential ingredients in a new legal realism, complementing each other because we need both empirical study of how law works and experiments to respond to those facts and, in the process, potentially reappraise the goals we seek and the means through which we pursue them.

We have not simply trumpeted these two strands because a challenge for both of them is how to theorize the role of formal law in their endeavors. When they under-theorize law's role, they risk suffering from very old problems. For example, if what goes into an empirical model is a false idea of law, then a false idea of law will come out—e.g., law can be reduced to politics. Similarly, if what goes into a new idea of regulation is subject to predictable dangers, such as stakeholder bias, then those dangers will persist, such as regulatory capture.

To assess these risks is not to say that we should stop all the presses and think only about law acontextually. Heavens no, for mainstream jurisprudence can be an arid field when it asks over and over "what is law," when it asks time and again about "rules of recognition" and the difference between "morals" and "law." There is more to legal theory than such conventional jurisprudence. We need theory that focuses not on recognizing law, but understanding how law works, which focuses on law application. Law application requires us to take what we recognize as law and then see how it works in the world; it requires both law and fact, which in turn requires new concepts and new empirical work.

To suggest that empirical legal studies and new governance have to engage seriously about their ideas of law—whether about the legal inputs

^{159.} Brian Tamanaha, *The Third Pillar of Jurisprudence: Social Legal Theory*, 1, 28–29, 36 (Wash. U. School of Law Legal Research Paper Series, Paper No. 13-04-01), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2256622 (2013).

into the models, or the idea of catalytic regulation—is not to set them out to sea in a boat with folks who only care about "rules of recognition." There is a history here and we think a history that is critical for the new legal realist project. In what follows, we offer suggestions about how to think about law's role, borrowing from a tradition that has not had as much play within standard jurisprudence, but which has a history of relevance to those engaged in the project of new legal realism.

Legal realism, old and new, has reached out to American philosophical pragmatism for inspiration in addressing such challenges. We do not mean by the term pragmatism what Willard Hurst called the "bastard pragmatism" of welfarist cost/benefit analysis, although we recognize its value as an ingredient in decision-making, with its usefulness varying in context. Rather, we mean the philosophical pragmatism of Charles Peirce, William James, and John Dewey which sought to harness uncertainty and revisability as essential for creating new forms of knowledge to attack real world problems. American pragmatism stresses the limits of a command and control theory of knowledge because of factual and theoretical uncertainty: we cannot know our ends in advance; all we can do is posit ends-in-view which are subject to revision in dynamic interaction with a changing world. Each human intervention to reduce uncertainty alters the environment to be understood, creating new capabilities, and with them, new uncertainties.

Philosophical pragmatism allows us to focus on what new governance and legal empiricism offer for a new legal realism while noting the limits they must confront in asking how law is applied and changes. Philosophical pragmatism recognizes that all our choices are conditional; they depend upon the existing conditions in society. Empirically grounded, philosophical pragmatism calls for a new legal realism that explores variation to build conditional legal theory. Problem-centered, such a new legal realism must grapple with comparative analysis of the tradeoffs of institutional choices in light of the empirical evidence, experimentalist trial and error, and the dynamics and potential perversities of participation and collective action. Critically reflexive, such a new legal realism pursues an emergent analytics. Fallibilistic, it encourages experiment stimulated by uncertainty. We elaborate on these ideas below.

A. FALLIBILISM AND UNCERTAINTY

Peirce, Dewey, and the other pragmatists were not afraid of uncertainty; in fact, they accepted uncertainty as a fundamental ineradicable component of all inquiry. Positing uncertainty has the virtue of resisting

^{160.} HART, supra note 35, at 95.

^{161.} WILLIAM HURST, LAW AND SOCIAL PROCESS IN UNITED STATES HISTORY 283

^{162.} As Dewey stressed, "A pragmatic intelligence is a creative intelligence, not a routine mechanic." John Dewey, The Need for a Recovery of Philosophy (1917). See also de Been, Legal Realism Regained, supra note _____ (stressing pragmatism as the defining aspect of legal realism in contradistinction to critical legal studies).

what we have seen as the assumptions in/assumptions out problem, which confronts all scholarship including that of the two major new legal realist strands that we appraise: new governance and empirical legal studies. One can never be completely confident that methodologically-induced inputs will not yield self-fulfilling results. Fallibilism enjoins the scholar to test from different angles the same proposition so as to expose such problems. As Thomas Kuhn once explained, it is precisely when the incomprehensible or seemingly unexplainable rears its head that inquiry reveals what we have forgotten or never knew. Head that inquiry becomes an act of discovery, both of underlying facts and responses to them. You know you have a challenge when you are deeply uncertain about a legal phenomenon and its explanation.

In other words, empiricism requires experimentalism in two ways: to ground itself in the experience of how law works, and to upend assumptions that turn out to be wrong. Developments in the use of experimental empirical methods to address poverty reduction illustrate our point. For years, development policies of the International Monetary Fund and World Bank focused solely on macro indicators to promote growth. Bureaucrats from Washington would fly into one poor country after another, promote structural reforms that would be only partially implemented, and then bemoan their ineffectiveness. Given the serial failures of these policies, new development economists have used randomized experimental methods at the local level to see what works in alleviating poverty. For example, one study, using different random-

^{163.} To go back to the pragmatist Peirce, he contends that "reasoning should not form a chain which is no stronger than its weakest link, but a cable whose fibers may be ever so slender, provided they are sufficiently numerous and intimately connected." Charles S. Peirce, Some Consequences of Four Incapacities, reprinted in Collected Papers of Charles S. Pierce, Vol. 5, 265.

^{164.} VICTORIA NOURSE, IN RECKLESS HANDS 14 (2008) (paraphrasing Kuhn).

^{165.} See, e.g., Juan Camilo Cardenas, Experiments in Environment and Development, 1 Ann. Rev. Resource Econ., 157, 157, 163 (2009) (Noting that this empirical work has been "an important source of information with respect to experimentation in development and policy design." He "reflects on the value of having a productive dialogue—in connection with said experiments—with the main stakeholders regarding the problems being studied."); Mariah Ehmke & Jason F. Shogren, The Experimental Mindset Within Development Economics: Proper Use and Handling Are Everything, 32 Applied Econ. Persp. & Poly, 549, 549-563 (2010) ("Recent work with Randomized Controlled Trials (RCTs) in development economics has contributed to economists' use of the experimental mindset to inform policy choices."); Dani Rodrik, The New Development Economics: We Shall Experiment, but How Shall We Learn? (John F. Kennedy School of Government Harvard University) (July 2008) (unpublished comment) (available at https://www.hks.harvard.edu/fs/drod rik/research%20papers/The%20New%20Development%20Economics.pdf) ("Macro-development economists need to recognize the distinct advantages of the experimental approach and adopt the policy mindset of the randomized evaluation enthusiasts. Microdevelopment economists, for their part, have to recognize that the utility of randomized evaluations is restricted by the narrow and limited scope of their application.").

^{166.} See Mac Darrow, Between Light and Shadow: The World Bank, The International Monetary Fund and International Human Rights 89 (2003).

^{167.} *Id*. at 4.

^{168.} See, e.g., Jessica Cohen & Pascaline Dunas, Free Distribution of Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment, 126 Q.J. Econ. 1–45 (2010).

ized control groups, showed that distributing mosquito nets for free to pregnant women was vastly more effective than charging for them, even when charging minimal amounts, upsetting the assumption that charging for the product would create a sense of ownership and thus more reliable use of it. These local level experiments are partial and provide only limited input into macro questions, such as budget allocation, but they are essential for assessing how policies work on the ground and what assumptions have been false. These experimental methods inform other empirical approaches, help test theory, and provide new, more reliable information that builds from ground level experience to reevaluate theory. They are thus an important component in the development of conditional legal theory.

Engaging in such experiments, just as other forms of fieldwork, places empiricists in contact with affected stakeholders. As experimental economists note, there is value in "having a productive dialogue with the main stakeholders regarding the problems being studied." To go back to Max Weber's conception of *verstehen*, empirical scholars can obtain a better feel for the situation, such as how law works in practice, by attempting to understand stakeholders' perspectives. More generally, empiricists would benefit from a new governance mindset if they wish to understand law's interactive dynamics.

Fallibilism, in opposing foundationalism, differs from skepticism. The pragmatist response to foundationalism, as Richard Bernstein writes, was not to resign themselves to "skepticism or relativism," but "to elaborate a thoroughgoing fallibilism where we realize that although we must begin an inquiry with prejudgments and can never call everything into question at once, nevertheless there is no belief or thesis—no matter how fundamental—that is not open to further interpretation and criticism." It is this combination of reflexive critique that builds from experience, with openness to engage in experimentalist practice, that is our pragmatist heritage. It is precisely this view that allows for the discovery of new legal ideas that we have called emergent analytics.

B. Building conditional theory regarding the ongoing importance of formal law

Philosophical pragmatism helps to support precisely the kind of empiricism we have suggested: one based on conditional claims. Experimental new governance's aim is to provide localized stakeholder input precisely because context matters. Yet experimentalism also requires a dose of humility, to assess its risks as well as its need, its limits as well as its potential, and the conditions likely to lead to these risks. It is not a question of either/or, but one of *variation*; the key issue is to explore the conditions

^{169.} Id.

^{170.} Camilo Cardenas, supra note ___ at 163.

^{171.} RICHARD J. BERNSTEIN, PRAGMATISM, PLURALISM AND THE HEALING OF WOUNDS (1988); see also Feldman, supra note 15.

that explain variation in experience with formal law (including traditional command and control regulation) in different combinations with experimentalist initiatives, and develop conditional theory from such analysis. Numerous examples point the way, from Gilson, Sabel, and Scott's work on the relation of generalist courts and contract law to contract innovation in a world of decentralized supply chains and technology production agreements, 172 Ouelette's work on patent disclosure rules and biotech innovation, 173 and Sally Merry and Simmons' work on the conditions under which, and the mechanisms through which, international human rights law generates rights protections.¹⁷⁴

NORMATIVE VALUES, EXPERIENTIAL LEARNING, AND A COMPARATIVE INSTITUTIONAL PERSPECTIVE

To focus on law inevitably engages one in normative analysis. Whatever empiricists or other new legal realists may think, there is simply no way to avoid the normative in law. 175 Philosophical pragmatism helps us to see that the truth in one age's view of liberty or slavery may not be that of another age—that the ends of liberty for new legal realists must be ends-in-view, not end-states. The norms that matter in such analysis are norms-as-applied: "the real freedoms that people enjoy," as Amartya Sen writes.¹⁷⁶ In this way, empiricism and experimentalism are central to value judgments because we locate our value judgments not in a priori reference points, but in our experience in attempting to live them. Dewey pointed this out long ago, 177 as has Sen in his more recent work on justice.¹⁷⁸ Those working in the pragmatist tradition stress the fallibility of our views about liberty, equality, and security. Such a pragmatist approach is not relativistic, but rather empirical, since we must engage in the world with ends-in-view and reassess them in light of the consequences of their pursuit. This empiricism also has a normative aspect since one's assessment of ends and means are reciprocal, since our judgments of ends are linked to our judgments of the costs of the means to pursue them, and our choice of means is adapted to ongoing re-assessment of our ends-in-view.179

Thus, when we advocate a focus on problem-solving under a dynamic new legal realism, we highlight the role of practical reasoning in light of experience. Such a focus does not privilege expertise over democratic

^{172.} See supra note ____.

^{173.} See supra note ___

^{174.} See Simmons, supra note ____; and Sally Merry, Human Rights and Gender Violence: Translating International Law into Local Justice (2006).

^{175.} See, e.g., Robin West, Normative Jurisprudence: An Introduction (2011).

^{176.} Amartya Sen, Development as Freedom 3 (1999).

^{177.} See, e.g., Dewey, Human Nature and Conduct, in MIDDLE WORKS (1922).

^{178.} See Amartya Sen, The Idea of Justice (2009).

^{179.} See, e.g., Dewey, Valuation and Experimental Knowledge, in MIDDLE WORKS (1922); Theory of Valuation, in LATER WORKS (1939).

decisionmaking.¹⁸⁰ Rather, a dynamic new legal realism stresses the importance of contextual, comparative analysis for the pursuit of any end-in-view through different institutional means (be it centralized state, decentralized market, associations, new governance, or otherwise).¹⁸¹ It does so in light of the dynamics of participation within different institutions and institutional contexts, dynamics which always exhibit at least some bias and thus are always imperfect. Since they exhibit bias in different ways, any meaningful analysis must assess their relative and comparative tradeoffs.¹⁸²

From a policy perspective, once we empirically assess variation in experience, whether with participation-catalyzing new governance techniques or otherwise, we arrive at the challenge of comparative institutional analysis. New governance experimentalism will face blockages and setbacks, just as command and control regulation are subject to legislative and administrative adoption, revision, and oversight. But to cast either aside based on single institutional analysis of their limits and failures is to forego pragmatism, because all institutions face severe limits in a world of rapid change and conflicting interests and beliefs. It is easy to sink into an armchair of skepticism, concluding nothing is to be done. Some institutional configurations will be better than others, and their advantages will vary in different contexts in light of the dynamics of participation within them. Comparative analysis of institutional alternatives in light of tradeoffs arising from participatory dynamics thus becomes central. What matters is improvement—from participatory input, to consequential output, to reassessment of our ends and means in light of such output. New governance experimentalism will operate in varying combinations with formal law and its enforcement. It is this insight that modularity stresses, advocating that we use our imagination to expand our toolsets to assess, address, and reassess the complex, multifaceted problems we confront as they mutate over time. In doing so, the dynamics of participation will affect the pursuit of our ends, dynamics that will continually confront us with the need to reevaluate both the means we deploy and the ends we

To give a final example, markets in developing countries are subject to numerous distortions, calling for government intervention. Industrial policy, in contrast, can correct these distortions, but is subject to regulatory

^{180.} Cf. Tushnet & Kennedy, supra note 120. Rather, democratic government itself is a form of problem-solving involving experimentation and feedback. As Dewey pointed out, democracy embodies experimental intelligence in institutionalizing feedback mechanisms to inform public representatives of the consequences of their policy judgments. See Dewey's Moral Philosophy, Stanford Encyclopedia of Philosophy 25 (2010), http://plato.stanford.edu/entries/dewey-moral (discussing Dewey, Democracy and Education, in Middle Works (1916)) (available at http://plato.stanford.edu/entries/dewey-moral).

^{181.} Nourse & Shaffer, supra note 2, at 129-37.

^{182.} See Neil Komesar, Imperfect Alternatives: Choosing Institutions in Law, Economics, and Public Policy 41–42 (1994); see also Gregory Shaffer, Comparative Institutional Analysis and a New Legal Realism, 2013 Wis. L. Rev. 607, 609 (2013).

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capture. Single institutional analysis of the risks of each of these alternatives is insufficient; the analysis must be comparative and conditional and give rise to learning. Industrial policy initiatives will not always succeed just as venture capital ones do not. Yet they can play a critical role in emerging economies if they provide for mechanisms that spur information production, public-private collaboration, new public inputs such as infrastructure, and new discoveries such as positive externalities from new investments. Successful industrial policy must be experimental and gradual, corrective and cumulative. It must create mechanism and feedback loops t open deliberation, monitor and review practices, overcome roadblocks and abandon failures. 183

REVISABILITY AND EMERGENT ANALYTICS

Problem-centered theory of the kind we have advanced will be wary of methodological assumptions and encourage revisability in the face of what emerges in the research. Let us imagine that it turns out that the initial supposition of the problem is poorly formed. One does not attempt to fit the data to the model (as may be tempting in a model-driven approach); instead, one revises the hypothesis. Thus, for example, consider that one interviews businessmen and asks what kind of law they use in resolving disputes.¹⁸⁴ Let us imagine that it turns out that they do not use much law at all. 185 Rather than resisting that conclusion, one problematizes the assumptions implicit in the question. 186 In other words, there are two interrelated aspects of a problem-centered approach for a pragmatist: (1) the external problems that a dynamic new realism aims to address and (2) the problems internal to one's very concepts and methodologies. The internal epistemological challenges must not be assumed away; otherwise we become trapped in a model-driven approach caught in defending its own parameters. 187

Fostering this mindset is critical in a world where information is changing rapidly on account of human interventions, while partisan media spur people to defend analytic priors against all evidence to the contrary. As Douglas North writes, humans' efforts to reduce uncertainty and "to render their environment intelligible result in continual alterations in that environment and therefore new challenges to understanding that environment."188 With rapid technological advance and global diffusion, we constantly create new opportunities and new problems. What we need, as

^{183.} See, e.g., Ricardo Hausmann, Dani Rodrik and Charles Sabel, Reconfiguring Industrial Policy: A Framework with an Application to South Africa (2008), available at http:/ /papers.ssrn.com/sol3/papers.cfm?abstract_id=1245702; Dani Rodrik One Economics, Many Recipes: Globalization, Institutions, and Economic Growth (2007).

^{184.} Macaulay, supra note 12.

^{185.} Id.

^{186.} Id.; Ellickson, supra note 115.

^{187.} We are thankful for Chris Roberts discussing these issues with us.

^{188.} Douglass North, Understanding the Process of Economic Change 5, 20 (2005) ("The changes in the environment that we make today create a new and in many cases novel environment tomorrow.").

a result, is ever-new empirical assessment and reassessment, combined with experimentation to devise responses in variable contexts involving different actors and participatory dynamics. Since the past will only be an imperfect and potentially misleading guide, our analytics and our responses must be revisable in light of new experience. Empiricism and experimentalism are key components of new realism that should be held in creative tension, dynamically and recursively building from each other. What we do today creates a new environment that we must assess and in which we must act tomorrow. So we repeat, over and over, and always anew.



