

The Concepts of Law

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Concepts are the building blocks of legal doctrine. All legal rules and standards, in fact, are formed by combining concepts in different ways. But despite their centrality, legal concepts are not well understood. There is no agreement as to what makes a legal concept useful or ineffective—worth keeping or in need of revision. Social scientists, however, have developed a set of criteria for successful concepts. Of these, the most important is measurability: the ability, at least in principle, to assess a concept with data. In this Essay, we apply the social scientific criteria to a number of concepts and conceptual relationships in American constitutional law. We show that this field includes both poor and effective concepts and conceptual links. We also explain how the examples of poor concepts could be improved.

INTRODUCTION

A common contrast, first articulated in Professor H.L.A. Hart's classic *The Concept of Law*, is between an "external" or social scientific view of law and an "internal" view, which emphasizes law's normativity.¹ The so-called external view of law, in which law is conceived of as being essentially predictions about what courts will do, dates back at least to Justice Oliver Wendell Holmes and arguably to John Austin or Montesquieu.² The internal view is that adopted by participants within the legal system, be they judges, litigants, or lawyers, and includes all the normative and doctrinal considerations that inform legal decisions.

Legal scholarship has moved in an overtly empirical direction in recent years, and, arguably, there has been some improvement

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¹ H.L.A. Hart, *The Concept of Law* 86–88 (Clarendon 1961) (distinguishing the internal and external points of view). See also generally Scott J. Shapiro, *What Is the Internal Point of View?*, 75 *Fordham L Rev* 1157 (2006) (exploring tensions in Hart's perspective).

² See Oliver Wendell Holmes Jr, *The Path of the Law*, 10 *Harv L Rev* 457, 457 (1897) ("The object of our study, then, is prediction, the prediction of the incidence of the public force through the instrumentality of the courts."). See also Robert S. Summers, *Professor H.L.A. Hart's Concept of Law*, 1963 *Duke L J* 629, 631 (summarizing Austin's arguments); Arthur H. Garrison, *The Traditions and History of the Meaning of the Rule of Law*, 12 *Georgetown J L & Pub Pol* 565, 575–76 (2014) (describing Montesquieu's position).

in our external understanding of legal phenomena.³ The technology for making Holmesian predictions has improved dramatically, largely because of developments in the social sciences. Consequently, the external view has made great strides in many areas of legal scholarship, and some critics argue that it has eroded attention to the internal view.⁴ Yet the two are also closely linked.

In this Essay, we argue that social science can inform an internal view of law by improving the formation and linkage of legal concepts. The social science literature on conceptualization and measurement is vast, particularly in political science, psychology, and sociology.⁵ Yet its insights have been largely ignored by lawyers, notwithstanding some similarities to the architecture of legal thought. Law, after all, involves language organized into concepts, structured in a way that lawyers can deploy them. Concepts are the very bread and butter of daily life, and, of course, of law as well. Negligence, a taking, promissory estoppel, strict scrutiny—each of these is a formulation that involves a particular conceptual structure and helps to shape the way lawyers approach legal problems. Our argument is that examining legal doctrines with the same rigorous scrutiny that social scientists apply to their own efforts can yield insights into what is a useful legal concept or relationship. And we further suggest this will advance efforts at

³ See Theodore Eisenberg, *The Origins, Nature, and Promise of Empirical Legal Studies and a Response to Concerns*, 2011 U Ill L Rev 1713, 1715–19; Michael Heise, *An Empirical Analysis of Empirical Legal Scholarship Production, 1990–2009*, 2011 U Ill L Rev 1739, 1741–46; Shari Seidman Diamond and Pam Mueller, *Empirical Legal Scholarship in Law Reviews*, 6 Ann Rev L & Soc Sci 581, 592 (2010).

⁴ See, for example, Charles L. Barzun, *Inside-Out: Beyond the Internal/External Distinction in Legal Scholarship*, 101 Va L Rev 1203, 1245–58 (2015).

⁵ See, for example, Giovanni Sartori, *Concept Misformation in Comparative Politics*, 64 Am Polit Sci Rev 1033, 1035 (1970); Gary Goertz, *Social Science Concepts: A User's Guide* 27–67 (Princeton 2006); John Gerring, *Social Science Methodology: A Unified Framework* 107–40 (Cambridge 2d ed 2012); Gary King, Robert O. Keohane, and Sidney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research* 97–114 (Princeton 1994); David Collier, Jason Seawright, and Gerardo L. Munck, *The Quest for Standards: King, Keohane, and Verba's Designing Social Inquiry*, in Henry E. Brady and David Collier, eds, *Rethinking Social Inquiry: Diverse Tools, Shared Standards* 21, 21–26 (Rowman & Littlefield 2004); Henry E. Brady, *Doing Good and Doing Better: How Far Does the Quantitative Template Get Us?*, in Brady and Collier, eds, *Rethinking Social Inquiry* 53, 62–66 (cited in note 5); Gary Goertz, *Concepts, Theories, and Numbers: A Checklist for Constructing, Evaluating, and Using Concepts or Quantitative Measures*, in Janet M. Box-Steffensmeier, Henry E. Brady, and David Collier, eds, *The Oxford Handbook of Political Methodology* 97, 98–114 (Oxford 2008).

refinement within the law. We deploy several examples from constitutional law to illustrate our claim, but the implications are more general.

Before proceeding, let us be clear that, notwithstanding the title of our Essay, this is not a work of jurisprudence. We are not interested, as Hart was, in the concept of law itself.⁶ We set aside the question of what law is, as well as the relative roles of natural law or positivist approaches to that question.⁷ Rather, we are interested in the way law uses concepts. Although we have made significant advances in our predictive understanding of judicial behavior, there has been little effort to apply the same insight to the articulation of the law itself. Our effort provides an external vantage point from which to assess the law's conceptual apparatus, which in turn might inform the law's normative development.

Note also that we are not grappling with nonlegal concepts that are often deployed within the law. Obviously, law seeks to advance values, like justice, fairness, or democracy, that are not themselves inherently legal in character. These values provide benchmarks against which legal systems can be measured, and might themselves be subjected to social science scrutiny.⁸ But these are not themselves *legal* concepts in our view, even if they are used to motivate legal intervention.

The Essay is organized as follows. First, we provide a sketch of the social science literatures on conceptualization and measurement. We emphasize the desiderata of a good social science concept, one of which is that the concept should in principle be subject to empirical evaluation. Next, we consider the relationships between concepts, which we argue are a central feature of the law. At the most basic level, the application of any legal test is assumed to advance another concept, like justice or deterrence. Internally, within the law, concepts are also building blocks of legal rules, and can be bundled together in various ways.⁹ Our argument is that these links are most useful when empirically

⁶ See Hart, *The Concept of Law* at 1 (cited in note 1).

⁷ See H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 Harv L Rev 593, 593–94 (1958) (presenting the positivist viewpoint); Lon L. Fuller, *Positivism and Fidelity to Law—a Reply to Professor Hart*, 71 Harv L Rev 630, 630–32, 671–72 (1958) (responding from a natural law perspective).

⁸ Indeed, a large literature grapples with the rule of law as a concept. See, for example, Jørgen Møller and Svend-Erik Skaaning, *The Rule of Law: Definitions, Measures, Patterns and Causes* 1–3, 13–14 (Palgrave Macmillan 2014).

⁹ See Peter de Bolla, *The Architecture of Concepts: The Historical Formation of Human Rights* 40–47 (Fordham 2013).

verifiable, at least in principle. The next Part provides a series of examples, drawn primarily from constitutional law, though our claim is more general. These examples cover both concepts and conceptual relationships, and both poor and effective cases. We conclude with a brief discussion of implications and extensions.

I. A PRIMER ON CONCEPTUALIZATION AND MEASUREMENT

A. Concepts and Conceptualization

Concepts provide the mental architecture by which we understand the world and are ubiquitous in social science as well as law. Conceptualization involves the process of formulating a mental construct at a particular level of abstraction.¹⁰ A large debate in the philosophy of cognitive science grapples with different views of concepts.¹¹ Some regard concepts as essentially nominal in character, meaning that they are about *definitions* of phenomena rather than the phenomena themselves. Some see concepts as marking *mental representations* of phenomena.¹² Others see concepts as ontological claims or “theories about the fundamental constitutive elements of a phenomenon.”¹³

“Concept” itself is a tricky concept. For our purposes, concepts can be distinguished from other phenomena of interest to law such as words or rules. Law is composed of words or labels, but these are different from the concepts that are the building blocks of law. To see why, consider that a single label can refer to multiple concepts: a *right* means one thing when giving directions, but quite another when discussing the legal system. Even within the law, the concept of a right is different when thinking about an individual’s freedom from torture than when talking about Mother Nature’s right to remediation.¹⁴ Conversely, a similar concept can be represented by different words.

¹⁰ See Goertz, *Social Science Concepts* at 28–30 (cited in note 5); Gerring, *Social Science Methodology* at 112–13 (cited in note 5).

¹¹ The debate goes back to Aristotle. See Gerring, *Social Science Methodology* at 114–15 (cited in note 5). See also Eric Margolis and Stephen Laurence, *Concepts* (Stanford Encyclopedia of Philosophy, May 17, 2011), online at <http://plato.stanford.edu/archives/win2012/entries/concepts> (visited Dec 28, 2016) (Perma archive unavailable).

¹² See Margolis and Laurence, *Concepts* (cited in note 11).

¹³ Goertz, *Social Science Concepts* at 5 (cited in note 5).

¹⁴ See Ecuador Const Art 71, translation archived at <http://perma.cc/DKJ5-E3K8> (“Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes.”).

Concepts are also distinct from *rules*. Rules provide decision procedures to categorize behavior as, for example, legal or illegal. A legal rule is composed of multiple concepts put together in a particular kind of relationship: if someone engages in *murder*, she shall be subject to a *penalty* of *imprisonment*. Each of these concepts might have subconcepts: *murder*, for example, is killing with *malice aforethought* or *intent*. The rule provides the criteria for decision, but relies on abstract ideas—concepts—with more or less intuitive appeal. This simple example demonstrates that law is built of concepts and subconcepts, structured together in particular ways.

Some concepts are developed through necessary, or necessary and sufficient, attributes. It is necessary that a mammal be an animal; it is necessary and sufficient that it be an animal that secretes milk to feed its young. Another way of approaching attributes is to list all the desirable ones, and perhaps to treat them additively, so that more of them will get one closer to the ideal of the particular concept. This is sometimes called a maximal strategy of conceptualization and is exemplified at the extreme by Max Weber's concept of an ideal type, which may never be met in practice.¹⁵ A third approach relies on the "family resemblance" of phenomena, so that even if no single attribute is necessary or sufficient, the presence of enough attributes will suffice to mark the presence of the concept.¹⁶ Bearing live young, possessing fur, and secreting milk are common or typical attributes of mammals, even though the platypus, a mammal, does not have all of these features. Finally, and most relevant to our project here, some believe that concepts are always embedded in a broader theory, so that their essential features may not be observable at all, but instead are defined as part of the background theory. This is known as the "theory theory" of concepts.¹⁷

Many legal tests are formulated as having necessary and sufficient attributes. If one has a duty to behave in a particular way, has breached this duty, and has caused damage to another, then one has, by definition, committed a tort. But some legal concepts are formulated as multipart tests in which factors are added and weighed, with an eye toward seeing if the ideal is met. In deciding

¹⁵ See Gerring, *Social Science Methodology* at 136–37 (cited in note 5), citing Max Weber, *The Methodology of the Social Sciences* 90 (Free Press 1949) (Edward A. Shils and Henry A. Finch, eds and trans).

¹⁶ Goertz, *Social Science Concepts* at 36 (cited in note 5).

¹⁷ Margolis and Laurence, *Concepts* (cited in note 11).

if an attorney in a prevailing ERISA claim is to be awarded fees, for example, courts apply a five-factor test:

(1) the degree of culpability or bad faith attributable to the losing party; (2) the depth of the losing party's pocket, i.e., his or her capacity to pay an award; (3) the extent (if at all) to which such an award would deter other persons acting under similar circumstances; (4) the benefit (if any) that the successful suit confers on plan participants or beneficiaries generally; and (5) the relative merit of the parties' positions.¹⁸

The implicit concept here is an ideal type of what might be called appropriate fee-shifting. None of the five elements is absolutely necessary, but if all five are plainly met, the ideal type will be achieved. The closer one gets to the ideal type, the more likely one is to get an award. The internal participant within the legal system, in this case a judge, will engage in the process of running through the attributes to see if they are met.

Legal concepts come in different levels of abstraction, often nested within one another. Private law is more encompassing than tort, which in turn encompasses negligent infliction of emotional distress. Unlike in social science, however, there is not much explicit legal work on concept formation, and few of the rich definitional debates that mark social scientific literatures on, say, democracy or even the rule of law. Our argument is that paying attention to legal concepts can improve the structure of the law.

B. What Makes a Good Concept?

There are several different social scientific conceptualizations about what it is that makes a good concept. A common approach is a listing of attributes, such as parsimony, explanatory power, and distinction from other concepts. These lists vary from scholar to scholar, but we rely on a recent contribution from the prominent social scientist Professor John Gerring, who argues that a good social scientific concept can be evaluated on several dimensions.¹⁹ It should have resonance, in that it should "make[] sense" to observers; it should have a stipulated domain over which it applies; it should be consistent, in the sense of conveying the

¹⁸ *Cottrill v Sparrow, Johnson & Ursillo, Inc.*, 100 F3d 220, 225 (1st Cir 1996).

¹⁹ See Gerring, *Social Science Methodology* at 117–19 (cited in note 5). See also John Gerring, *What Makes a Concept Good? A Criterial Framework for Understanding Concept Formation in the Social Sciences*, 31 *Polity* 357, 367 (1999) (offering a slightly different set of criteria).

same meaning in different contexts; it should be “fecund,” meaning that it has richness and depth; it should be differentiated from other neighboring concepts; it should have causal utility, meaning that it is useful; and it should in principle be measurable, that is, capable of being operationalized within social scientific frameworks.²⁰ Let us describe each of these in a bit more detail, with an application to law.

Resonance is a quality that is essentially linguistic in character, and can easily be applied to law. For example, we can ask whether a legal test is resonant with the relevant audience. Does the framework of examining tiers of scrutiny “make sense” to observers? Is proportionality an intuitive concept in terms of advancing ideas about justice? Is it faithful to established definitions?²¹ We can also compare legal concepts for linguistic resonance: For example, in considering instances when a government diminishes an investment’s value, is “indirect expropriation” or “regulatory taking” a better concept? Resonance is essentially about labels and how well they communicate an idea to an audience.

Many legal concepts are clearly resonant. However, it is an interesting feature of some legal concepts that they are in fact distinct from the ordinary meaning attached to the same terms. Only in law does “intent” include reckless disregard as well as intending the outcome; “statutory rape” adds the adjective precisely because the conduct it condemns is consensual. There is thus some variation across legal concepts in terms of resonance.

Domain simply refers to the realm in which a concept applies, and is fairly clear when applied to law.²² The domain of legal concepts is, in fact, the legal system, and is not meant to encompass anything outside it. Thus, specialized language within the law is deployed internally. Common-law marriage refers to the idea that the marriage is legal, even if not formally recorded.

Consistency requires that a concept carry the same meaning in different empirical contexts.²³ If the concept of felony murder is different in Louisiana and California, this would violate the requirement of consistency. Observe that the legal *definitions* in the two states might diverge, maybe even dramatically, but this does

²⁰ See Gerring, *Social Science Methodology* at 117 (cited in note 5) (listing Gerring’s criteria of conceptualization).

²¹ See *id.* at 117–19.

²² See *id.* at 119–21.

²³ See *id.* at 121–24.

not mean that the *concept* would differ. But it is also the case that, for example, multipart tests may put pressure on conceptual consistency across contexts. To use the fee-shifting example described above, if an award were based primarily on the wealth of the losing party, it would imply a different purpose than if it were based on deterrence considerations. These might be seen as internally inconsistent applications of the test, ultimately based on different concepts.

Fecundity is defined by Gerring as referring to “coherence, depth, fruitfulness, illumination, informative-ness, insight, natural kinds, power, productivity, richness, or thickness.”²⁴ This collection of descriptors has to do with a concept’s ability to describe reality in a rich way, and in some sense to reveal a structure that might not be apparent without the concept.²⁵ It is a desirable feature of social science, though not so important in law in our view, because some legal concepts can be limited to very narrow technical applications. For example, in social science, in thinking about different types of political “regimes,” one might distinguish authoritarian regimes from democracies, or might alternately look at particular subtypes within each category: electoral authoritarians, totalitarians, military regimes, and absolute monarchies,²⁶ or presidential and parliamentary democracies.²⁷ An analogously fecund legal concept might be “rights,” which has generated many subtypes. But other legal concepts can be narrow and yet still effective within their specific domain: a lien or a stay, for example, reveals no deep structure.

Differentiation refers to the distinction between a concept and a neighboring concept.²⁸ Sometimes concepts are defined by their neighboring concepts. As Gerring notes, nation-states are defined in contrast with empires, political parties in contrast with interest groups.²⁹ It is thus the case that new concepts are best when

²⁴ Gerring, *Social Science Methodology* at 124 (cited in note 5).

²⁵ See id at 124–26.

²⁶ See Barbara Geddes, *Paradigms and Sand Castles: Theory Building and Research Design in Comparative Politics* 50–53 (Michigan 2003).

²⁷ See José Antonio Cheibub, *Presidentialism, Parliamentarism, and Democracy* 26–48 (Cambridge 2007).

²⁸ See Gerring, *Social Science Methodology* at 127–30 (cited in note 5).

²⁹ See id at 127.

they fit within existing concepts. When a new legal idea is created—sexual harassment, for example—it is helpful to mark how it *differs* from existing concepts.³⁰

Causal utility refers to the usefulness of a concept.³¹ Obviously, this is domain specific. Professor Gary Goertz focuses on the utility of concepts for social scientific methods.³² But in law we might ask how easy the concept is for courts to apply, and how effective it is in differentiating lawful from unlawful behavior.

The requirement that a concept be *measurable* is a frequent desideratum in social scientific accounts of concepts (in which it is sometimes called operationalizability). The idea here is *not* that there must be available data or indicators that meet the standard tests of social science. Instead, the point of measurability is that in principle there ought to be data that *could* be deployed to test theories that use the concept.³³ For legal tests, it may be prudent to consider whether measures can be developed in principle. This might help to ensure that the analyst is proposing a workable test that is capable of achieving its aims.

Consider an example of an internal legal doctrine, drawn again from the five-part test for attorney's fees in the ERISA context.³⁴ Some of the elements are more amenable to empirical verification than others: the wealth of the losing party and the potential deterrent effect of an award are, in principle, quantifiable. The other elements—culpability, benefits, and relative merit—are less so. To successfully deploy this conceptual test, courts will thus have to aggregate, by an unknown weighting formula, five different elements that are fairly discrete, possibly incommensurable, and difficult to operationalize. To the extent that the elements are measurable, this exercise could be more precise, transparent, and ultimately legitimate. Our view is that measurability, even in principle, can bring precision and discipline to law.

³⁰ See Catharine A. MacKinnon, *Sexual Harassment of Working Women: A Case of Sex Discrimination* 57–59 (Yale 1979) (discussing whether sexual harassment fits neatly into the sex discrimination category).

³¹ See Gerring, *Social Science Methodology* at 130–31 (cited in note 5).

³² See Goertz, *Social Science Concepts* at 4 (cited in note 5) (noting that the key features are relevance “for hypotheses, explanations, and causal mechanisms”).

³³ See Gerring, *Social Science Methodology* at 156–57 (cited in note 5).

³⁴ See *Cottrill*, 100 F3d at 225.

C. Relationships among Concepts

Many of the central questions in social science involve *relationships* among different concepts. Does democracy increase economic growth? Does race correlate with voting behavior? Do people behave rationally in their investment decisions? Are military alliances stable across time? Each of these questions features at least two different concepts, which might in theory take on different meanings and surely could be measured in many different ways. Each also features a relationship among concepts, whether causal or correlative.

Examining these relationships among concepts also requires operationalizing them. This means we must come up with tractable indicators or measures that can then be deployed into a research design. Indeed, some argue that this is the central criterion of a good social scientific concept. If a concept is not capable of being operationalized, then it is lacking a central characteristic, and even the presence of many other desirable features may not be able to save it.³⁵

Law, too, is centrally concerned with relationships among concepts. The variety of conceptual relationships in law is very large. The multipart tests mentioned above aggregate a variety of concepts into a single framework, which is fundamentally an additive approach to linking concepts. In contrast, the famous framework of Professor Wesley Hohfeld distinguished between conceptual correlates and conceptual opposites.³⁶ Correlative relationships are exemplified by the binary of right and duty, which co-occur so that if someone has a right, someone else has a duty. Opposites, on the other hand, are conceptually distinct. For example, someone with no duty has a privilege to do something or not; privilege and duty are opposites in Hohfeld's framework.³⁷ In other cases, concepts are nested within one another in fields: tort includes intentional infliction of emotional distress. Still other concepts can cut across fields: the concept of intent is used in multiple fields of law, sometimes in different ways. Many further types of semantic relationships are conceivable as well.

Rather than try to exhaustively categorize all possible relationships, we are most concerned here with a particular kind of

³⁵ See Goertz, *Social Science Concepts* at 6 (cited in note 5).

³⁶ See Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 Yale L J 710, 710 (1917).

³⁷ See *id.* at 710, 716–17.

connection among legal concepts: that of a causal character. Causal relationships are very common in legal concepts. At the most basic level, law often seeks to advance particular interests. Some of these interests, such as efficiency, justice, or fairness, are external to the law itself. Others may themselves be defined by the law, and so can be characterized as internal concepts. Either way, there is an assumption that legal rules have some causal efficacy in advancing interests. This is what is sometimes called an instrumental view of law.³⁸ While it is not the only view on offer, we adopt it for present purposes. We need not offer an absolute defense of the instrumental view, even if we are partial to it; the reader need accept only that it is a common view.

Causation is a good example of a concept that is used in both law and social science, in slightly different ways. Causation in social science is essentially conceived of in probabilistic terms.³⁹ If we say that *X* causes *Y*, we are saying that a change in the value of *X* will likely be associated with a change in the value of *Y*, holding all else constant. The tools of social science, and the rules of inference, are designed to help identify such relationships. In contrast, legal causation is more normative, focusing on the kinds of responsibility for harms that warrant liability and the kinds that do not.⁴⁰

Other examples of causal legal relationships abound. When we ask if a regulation constitutes a taking of property (or an indirect expropriation, to use the international law term), we want to know whether a change in the level of regulation would lead to a change in one's ability to use the property to the point that the owner should receive compensation.⁴¹ When we ask whether a policy has a discriminatory impact on a group under the Fair Housing Act⁴² or Title VI of the Civil Rights Act of 1964,⁴³ we need to identify baseline levels of demographic concentration, and then ask

³⁸ See Alon Harel, *Why Law Matters* 46 (Oxford 2014).

³⁹ See Ellery Eells, *Probabilistic Causality* 34–35 (Cambridge 1991).

⁴⁰ But see Antony Honoré, *Causation in the Law* (Stanford Encyclopedia of Philosophy, Nov 17, 2010), online at <http://plato.stanford.edu/archives/win2016/entries/causation-law> (visited Jan 23, 2017) (Perma archive unavailable) (noting the complexity of the relationship between causing harm and legal responsibility).

⁴¹ See *Lucas v South Carolina Coastal Council*, 505 US 1003, 1027 (1992) (discussing under what circumstances a state “may resist compensation” for “regulation that deprives land of all economically beneficial use”).

⁴² Pub L No 90-284, 82 Stat 81 (1968), codified as amended at 42 USC § 3601 et seq.

⁴³ Pub L No 88-352, 78 Stat 252, codified as amended at 42 USC § 2000d et seq.

whether a different policy would lead to a different level of treatment for the group.⁴⁴ We also want to compare alternative policies. Is it the case that once a particular level of impact is reached, one can stop the inquiry? Or is it a matter of cost-benefit analysis, such that increases in the impact may be outweighed by benefits on the other side? If so, does the disparate impact increase in a linear way with increments of the policy? These types of questions are rarely considered by lawyers or judges, who use causal language in a more heuristic way.

As these examples suggest, recognizing that legal concepts often involve relationships implies that we ought to favor concepts whose connections can in fact be identified and established. This is because such concepts can in principle be applied in consistent and precise ways across cases. While we know that not every concept can be captured by a real-world indicator or variable, we still think it valuable for lawyers and judges to focus on relationships for which the basic logic of *X* and *Y* holds.

Of course, the fact that not every relationship between concepts can be measured poses challenges for certain analyses. For instance, legal philosophers have wrestled with the idea of incommensurability, “the absence of a scale or metric.”⁴⁵ When values are not capable of being arrayed on a single scale, we think of them as incommensurable. Thinking about relationships that in principle can be ordered and tested on the same scale will, *ceteris paribus*, make the law more tractable. Similarly, the idea of outright necessity is subtly different from the more feasible notions of causation and correlation. Proving that *only X* can achieve *Y* is much more difficult—in fact, impossible in many contexts—than showing that *X* is *one* of the factors that drive *Y*.

II. CONCEPTUALIZING CONSTITUTIONAL LAW

To reiterate the discussion to this point: Social scientists have developed reasonably determinate criteria for distinguishing between effective and ineffective concepts, and between conceptual relationships that can and cannot be demonstrated. In brief, the hallmarks of effective concepts are resonance, domain specificity, consistency, fecundity, differentiation from other concepts, causal

⁴⁴ See *Metropolitan Housing Development Corp v Village of Arlington Heights*, 558 F.2d 1283, 1290–91 (7th Cir 1977).

⁴⁵ Matthew Adler, *Law and Incommensurability: Introduction*, 146 U Pa L Rev 1169, 1170 (1998).

utility, and, above all, measurability. Similarly, conceptual relationships involving correlation or causality are more easily established than ones involving necessity or the weighing of incommensurable quantities.

How well does law perform under these criteria? Are its concepts and conceptual relationships satisfactory or in need of improvement? These questions are far too broad to be answered fully here, but we begin to address them using a series of examples from American constitutional law. These examples include both poor concepts and relationships (for which we suggest improvement) and effective ones (for which we explain why they are useful). Constitutional law also strikes us as an unusually fertile field to plow for illustrations. It is a subject that brims with concepts and complex linkages among them. These concepts and linkages are largely (though not entirely) judicially created, meaning that they can be *revised* by the courts as well. And, not unimportantly for a project that potentially implicates law's entire empire, constitutional law is a discrete domain with which we are relatively familiar.

A. Poor Concepts

Before labeling any concept as poor, we must note a number of caveats. First, our tags are based not on a rigorous examination of all constitutional concepts (a daunting task to say the least), but rather on an impressionistic survey of several high-profile areas. In other words, we do not claim to have identified the *worst* (or best) concepts, but only a few concepts that mostly fail (or satisfy) the social scientific criteria for conceptualization. Second, our treatment of each concept is necessarily brief. We hit what we see as the essential points, but we cannot grapple here with each concept's full complexity. And third, though our mode is diagnostic, criticizing certain concepts and praising others, our ultimate aim is prescriptive. That is, we are interested in contemplating how constitutional law might look if its concepts were more effective—and in finding ways to push the doctrine in that direction.

Having disposed of these preliminaries, *corruption* is our first example of a concept that we regard as unhelpful. The prevention of corruption is the only justification the Supreme Court has recognized for burdening First Amendment rights by restricting the

financing of political campaigns.⁴⁶ Corruption is also unquestionably a resonant and fecund concept, in that it is intuitively undesirable to most observers and conveys a rich array of negative meanings. This rich array, though, is part of the problem. Precisely because corruption can mean many different things, the term can be—and has been—defined in many different ways.⁴⁷ The Court, in particular, has toggled back and forth between three conceptions: a narrower version limited to explicit *quid pro quos*, or overt exchanges of money for official governmental acts;⁴⁸ a broader version covering funders' access to and influence over officeholders;⁴⁹ and a still more expansive version extending to the distortion of electoral outcomes due to corporate spending.⁵⁰

In terms of the social scientific criteria, these shifting notions mean that corruption lacks domain specificity, consistency, and differentiation from other concepts. Domain specificity is missing because the narrower version applies to only the restriction of campaign contributions, while the two broader versions justify the limitation of campaign expenditures as well.⁵¹ Consistency is absent for the obvious reason that the Court has adopted three *inconsistent* definitions of corruption in the span of just a single generation. And depending on how it is construed, corruption bleeds into bribery (whose trademark is the *quid pro quo* exchange), skewed representation (responsive to funders rather than voters), or inequality (in electoral influence).⁵²

⁴⁶ See *McCutcheon v Federal Election Commission*, 134 S Ct 1434, 1450 (2014) (Roberts) (plurality).

⁴⁷ See, for example, Thomas F. Burke, *The Concept of Corruption in Campaign Finance Law*, 14 Const Commen 127, 128–35 (1997) (discussing three academic and three judicial definitions of corruption); Yasmin Dawood, *Classifying Corruption*, 9 Duke J Const L & Pub Pol 103, 106–32 (2014) (going through ten separate notions of corruption).

⁴⁸ See, for example, *McCutcheon*, 134 S Ct at 1450 (Roberts) (plurality) (“Congress may target only a specific type of corruption[,] . . . large contributions that are given to secure a political *quid pro quo* from current and potential office holders.”) (quotation marks and brackets omitted).

⁴⁹ See, for example, *McConnell v Federal Election Commission*, 540 US 93, 150 (2003) (“Congress’ legitimate interest extends beyond preventing simple cash-for-votes corruption to curbing undue influence on an officeholder’s judgment, and the appearance of such influence.”) (quotation marks omitted).

⁵⁰ See, for example, *Austin v Michigan State Chamber of Commerce*, 494 US 652, 660 (1990) (recognizing “a different type of corruption in the political arena: the corrosive and distorting effects of immense aggregations of wealth that are accumulated with the help of the corporate form”).

⁵¹ Compare *Citizens United v Federal Election Commission*, 558 US 310, 361 (2010), with *McConnell*, 540 US at 203, and *Austin*, 494 US at 660.

⁵² As should be clear from this discussion, our critique is not that the Court has used inconsistent *words* to describe the same underlying *concept*. Rather, each of the Court’s

One might respond that most of these difficulties would be avoided if the Court could only settle on a single notion of corruption. But there is no easy way in which the Court could do so because, as several scholars have pointed out, corruption is a *derivative* concept that becomes intelligible only through an antecedent theory of purity for the entity at issue.⁵³ With respect to legislators, for example, one can say they are corrupt only if one first has an account of how they should behave when they are pure. One thus needs a model of representation before one can arrive at a definition of legislative corruption—a definition that would correspond to deviation from this model. Of course, the Court could choose to embrace a particular representational approach, but this is hardly a straightforward matter, and it is one in which the Court has evinced no interest to date.

Moreover, even if the Court somehow managed to stick to a single notion of corruption, it would run into further issues of measurability and causal utility. These issues stem from the *covert* nature of most corrupt activities. When politicians trade votes for money, they do so in secret. When officeholders merely offer access or influence to their funders, they again do so as furtively as possible. Precisely for these reasons, social scientists have rarely been able to quantify corruption itself, resorting instead to rough proxies such as people's trust in government⁵⁴ and the volume of public officials convicted of bribery.⁵⁵ Unsurprisingly, given the crudity of these metrics, no significant relationships have been found between campaign finance regulation and corruption.⁵⁶ Greater regulation seems neither to increase people's faith in their rulers nor to reduce the number of officials taken on perp walks.

definitions of corruption corresponds to an entirely different notion of what it means for elected officials to be corrupt.

⁵³ See, for example, Burke, 14 Const Commen at 128 (cited in note 47) ("When corruption is proclaimed in political life it presumes some ideal state."); Deborah Hellman, *Defining Corruption and Constitutionalizing Democracy*, 111 Mich L Rev 1385, 1389 (2013) ("[C]orruption is a derivative concept, meaning it depends on a theory of the institution or official involved.").

⁵⁴ See, for example, Nathaniel Persily and Kelli Lammie, *Perceptions of Corruption and Campaign Finance: When Public Opinion Determines Constitutional Law*, 153 U Pa L Rev 119, 145–48 (2004). See also *Corruption Perceptions Index 2015* (Transparency International, Feb 1, 2016), archived at <http://perma.cc/C4XQ-6CE3>.

⁵⁵ See, for example, Adriana Cordis and Jeff Milyo, *Do State Campaign Finance Reforms Reduce Public Corruption?* *11–16 (unpublished manuscript, Jan 2013), archived at <http://perma.cc/9KRP-FC9C>.

⁵⁶ See id at *21–28; Persily and Lammie, 153 U Pa L Rev at 148–49 (cited in note 54).

Thanks to its poor performance on almost every criterion, we consider corruption to be an unsalvageable concept. It has not been, nor can it be, properly defined or measured. If it were abandoned, though, what would take its place in the campaign finance case law? We see two options. Less controversially, corruption could be swapped for one of the concepts into which it blurs, such as bribery. More provocatively (because further doctrinally afield), campaign finance regulation could be justified based on its promotion of distinct values such as electoral competitiveness, voter participation, or congruence with the median voter's preferences.⁵⁷ This is not the place to defend these values, though off-hand all seem more tractable than corruption. Our point, rather, is that when a particular concept is unworkable, it is often possible to replace it with a more suitable alternative.

We turn next to our second example of a flawed constitutional concept: *political powerlessness*, which is one of the four indicia of suspect class status under equal protection law.⁵⁸ Like corruption, powerlessness is a self-evidently resonant and fecund concept. To say that a group is powerless is to say something important about it, to convey a great deal of information about the group's position, organization, and capability. Also, as with corruption, the amount of information conveyed is a bug, not a feature. The many inferences supported by powerlessness give rise to many definitions of the term by the Court, including a group's small numerical size, inability to vote, lack of descriptive representation, low socioeconomic status, and failure to win the passage of protective legislation.⁵⁹

And again as with corruption, these multiple notions of powerlessness sap the concept of consistency and differentiation from other concepts. The inconsistency is obvious; the notions of powerlessness are not just multiple, but also irreconcilable.⁶⁰ Depending on how it is defined, powerlessness also becomes difficult to distinguish from concepts such as disenfranchisement, underrepresentation, and even poverty. And while the different conceptions of

⁵⁷ As to the last of these values, see generally Nicholas O. Stephanopoulos, *Aligning Campaign Finance Law*, 101 Va L Rev 1425 (2015).

⁵⁸ Political powerlessness was first recognized as a factor in *San Antonio Independent School District v Rodriguez*, 411 US 1, 28 (1973).

⁵⁹ See Nicholas O. Stephanopoulos, *Political Powerlessness*, 90 NYU L Rev 1527, 1537–42 (2015) (discussing the various judicial versions of powerlessness).

⁶⁰ See *id.* at 1540 (“The crucial point about these definitions is that they are entirely inconsistent with one another.”). Accordingly, these are not just different ways of expressing the same underlying idea; rather, they are divergent accounts of what it means to be powerless in the first place. See note 52.

powerlessness do not directly undermine its domain specificity, this criterion is not satisfied either, due to the uncertainty over how powerlessness relates to the *other* indicia of suspect class status. It is unclear whether powerlessness is a necessary, sufficient, or merely conducive condition for a class to be deemed suspect.⁶¹

However, unlike with corruption, a particular definition of powerlessness may be theoretically compelled—and is certainly not theoretically precluded. The powerlessness factor has its roots in *United States v Carolene Products Co*'s⁶² account of “those political processes ordinarily to be relied upon to protect minorities.”⁶³ “Those political processes,” in turn, refer to pluralism: the idea that society is divided into countless overlapping groups, from whose shifting coalitions public policy emerges.⁶⁴ And pluralism implies a specific notion of group power: one that is continuous rather than binary, spans all issues, focuses on policy enactment, and controls for group size and type.⁶⁵ Thus, powerlessness not only can, but arguably must, be conceived of in a certain way if it is to remain true to its pluralist pedigree.

Furthermore, if powerlessness is so understood, it becomes possible to measure and apply it. Social scientists have compiled extensive data on both the policy preferences of different groups and whether these preferences are realized in enacted law.⁶⁶ Combining this information, a group's odds of getting its preferred policies passed can be determined, adjusted for the group's size, and then compared to the odds of other groups.⁶⁷ This method yields

⁶¹ See, for example, *Varnum v Brien*, 763 NW2d 862, 888 (Iowa 2009) (pointing out “the flexible manner in which the Supreme Court has applied the four factors [relevant to suspect class status]”).

⁶² 304 US 144 (1938).

⁶³ *Id.* at 152 n 4.

⁶⁴ See Bruce A. Ackerman, *Beyond Carolene Products*, 98 Harv L Rev 713, 719 (1985) (“[G]enerations of American political scientists have filled in the picture of pluralist democracy presupposed by *Carolene*'s distinctive argument for minority rights.”).

⁶⁵ See Stephanopoulos, 90 NYU L Rev at 1549–54 (cited in note 59) (making this argument at length).

⁶⁶ See, for example, Martin Gilens, *Affluence and Influence: Economic Inequality and Political Power in America* 57–66 (Princeton 2012).

⁶⁷ See, for example, *id.* at 77–87.

the conclusions that blacks and women (both already suspect classes) are relatively powerless compared to whites and men.⁶⁸ Interestingly, it also indicates that the poor (not currently a suspect class) have far less clout than the middle class and the wealthy.⁶⁹

Because powerlessness can be—even though it has not been—defined and measured properly, we come to a different verdict for it than for corruption. That is, we recommend discarding the Court’s various notions of it and replacing them with the pluralist conception outlined above. Considering corruption and powerlessness in tandem also allows us to hazard a guess as to why the Court sometimes adopts faulty concepts. In both of these (potentially unrepresentative) cases, the Court borrowed complex ideas from democratic theory without fully grasping the ideas’ internal logic. At best (as with powerlessness), this approach leads to the circulation of numerous definitions of the concept, one of which is eventually found to be theoretically and practically defensible. At worst (as with corruption), the approach causes multiple definitions to be bandied about, none of which is theoretically legitimate or capable of being operationalized. Plainly, this is a far cry from textbook concept formation.

B. Effective Concepts

We doubt that the Court ever complies perfectly with any social scientific textbook. But the Court does, on occasion, recognize constitutional concepts that are significantly more effective than the ones analyzed to this point. As a first example of a successful concept, take *partisan symmetry*, which five justices tentatively endorsed in a recent case as a potential foundation for a test for partisan gerrymandering.⁷⁰ Partisan symmetry “requires that the electoral system treat similarly-situated parties equally,” so that they are able to convert their popular support into legislative representation with approximately equal ease.⁷¹ The Court cautiously backed symmetry only after struggling for decades with—and ultimately rejecting—a host of other possible linchpins for a

⁶⁸ See Stephanopoulos, 90 NYU L Rev at 1583–84, 1590–92 (cited in note 59).

⁶⁹ See, for example, Gilens, *Affluence and Influence* at 80–81 (cited in note 66); Patrick Flavin, *Income Inequality and Policy Representation in the American States*, 40 Am Polit Rsrch 29, 40–44 (2012).

⁷⁰ See *League of United Latin American Citizens v Perry*, 548 US 399, 420 (2006) (Kennedy) (plurality) (“LULAC”); id at 466 (Stevens concurring in part and dissenting in part); id at 483 (Souter concurring in part and dissenting in part); id at 492 (Breyer concurring in part and dissenting in part).

⁷¹ Id at 466 (Stevens concurring in part and dissenting in part).

gerrymandering test: seat-vote proportionality (inconsistent with single-member districts), predominant partisan intent (too difficult to discern), district noncompactness (not itself a meaningful value), and so on.⁷²

Partisan symmetry performs suitably well along all of the relevant dimensions. It is resonant and fecund because it captures the core harm of gerrymandering: a district plan that enables one party to translate its votes into seats more efficiently than its rival.⁷³ It is limited to the domain of electoral systems. It is defined identically in both the case law and the academic literature.⁷⁴ It is distinct from the other concepts the Court has considered in this area—including proportionality, which is a property that symmetric plans may, but need not, exhibit.⁷⁵ It is measurable using easily obtained electoral data and well-established statistical techniques.⁷⁶ And it is useful in that it conveys in a single figure the direction and extent of a plan's partisan skew.

However, we do not mean to claim that partisan symmetry is a flawless concept. It does not take into account odd district shape or partisan motivation, both aspects of gerrymandering as the practice is commonly understood. Its calculation requires fairly strong assumptions about uncontested races and shifts in the statewide vote.⁷⁷ Two different symmetry metrics exist, which usually but not always point in the same direction.⁷⁸ And to form a workable test for gerrymandering, symmetry must be combined

⁷² See *Vieth v Jubelirer*, 541 US 267, 285–86 (2004) (Scalia) (plurality).

⁷³ See *id.* at 271 n 1 (Scalia) (plurality) (noting that gerrymandering has been defined as “giv[ing] one political party an unfair advantage by diluting the opposition’s voting strength”).

⁷⁴ Compare *LULAC*, 548 US at 466 (Stevens concurring in part and dissenting in part), with Bernard Grofman and Gary King, *The Future of Partisan Symmetry as a Judicial Test for Partisan Gerrymandering after LULAC v. Perry*, 6 Election L J 2, 6 (2007).

⁷⁵ See Grofman and King, 6 Election L J at 8 (cited in note 74) (“Measuring symmetry . . . does *not* require ‘proportional representation’ (where each party receives the same proportion of seats as it receives in votes).”).

⁷⁶ See *id.* at 10 (noting that symmetry is measured using “highly mature statistical methods [that] rely on well-tested and well-accepted statistical procedures”).

⁷⁷ See *LULAC*, 548 US at 420 (Kennedy) (plurality) (criticizing partisan bias because it “may in large part depend on conjecture about where possible vote-switchers will reside”); Nicholas O. Stephanopoulos and Eric M. McGhee, *Partisan Gerrymandering and the Efficiency Gap*, 82 U Chi L Rev 831, 865–67 (2015) (discussing the imputation of results for uncontested races).

⁷⁸ These are partisan bias, which is the divergence in the share of seats that each party would win given the same share of the statewide vote, see Grofman and King, 6 Election L J at 6 (cited in note 74), and the efficiency gap, which is “the difference between the parties’ respective wasted votes, divided by the total number of votes cast,” Stephanopoulos and McGhee, 82 U Chi L Rev at 851 (cited in note 77) (emphasis omitted).

with other prongs, thus somewhat diminishing its utility. *Somewhat*, though, is the key word here. Symmetry is not a perfect concept; no concept is. But symmetry can be defined, measured, and applied coherently, which is the most the law can ask of a concept.

Our second example of an effective concept, *racial polarization in voting*, has had a doctrinal history similar to that of partisan symmetry. Between the early 1970s and the mid-1980s, the Court struggled to identify the exact problem with racial vote dilution (the reduction of minorities' electoral influence through means other than burdening the franchise).⁷⁹ Unable to crystallize the issue, the Court instead laid out a dozen factors that were meant to be analyzed in unison to determine liability.⁸⁰ This unwieldy doctrinal structure finally collapsed in 1986, when the Court held that plaintiffs had to prove racial polarization in order to prevail.⁸¹ The Court also carefully defined polarization as "the situation where different races . . . vote in blocs for different candidates."⁸²

Like partisan symmetry, racial polarization in voting complies reasonably well with all of the social scientific criteria for conceptualization. It is resonant and fecund because it reflects the reality that racial vote dilution is possible only under polarized electoral conditions. If polarization does not exist, then neither can a minority group prefer a distinct candidate, nor can the majority thwart a minority-preferred candidate's election.⁸³ It is limited to the field of vote dilution, not even extending to the adjacent area of vote denial.⁸⁴ It is understood in the same way by both judges and scholars.⁸⁵ It is different from other important vote dilution concepts like a minority group's geographic compactness

⁷⁹ See Samuel Issacharoff, *Polarized Voting and the Political Process: The Transformation of Voting Rights Jurisprudence*, 90 Mich L Rev 1833, 1844 (1992) (noting the "absence of an overriding conception of the precise constitutional harm the courts were seeking to remedy" in this period).

⁸⁰ See *White v Regester*, 412 US 755, 765–70 (1973); *Zimmer v McKeithen*, 485 F2d 1297, 1305–07 (5th Cir 1973).

⁸¹ See *Thornburg v Gingles*, 478 US 30, 51 (1986). Importantly, while the pre-*Gingles* vote dilution cases were brought under the Fourteenth Amendment, dilution cases from *Gingles* onward have generally been launched under § 2 of the Voting Rights Act, codified at 52 USC § 10301.

⁸² *Gingles*, 478 US at 62 (Brennan) (plurality).

⁸³ See, for example, *Grove v Emison*, 507 US 25, 40 (1993).

⁸⁴ Minority voters can be disproportionately burdened by an electoral regulation (say, a photo identification requirement) whether or not they are polarized from the white majority.

⁸⁵ The *Gingles* Court noted that "courts and commentators agree that racial bloc voting is a key element of a vote dilution claim," *Gingles*, 478 US at 55, and endorsed the

and elected officials' responsiveness to the group's concerns.⁸⁶ It is measurable by applying ecological regression techniques to election results and demographic data.⁸⁷ And it is useful because it is both the mechanism that drives vote dilution and a metric reducible to a single number.

But also like partisan symmetry, racial polarization in voting has its warts too. Not all commentators agree that it is troublesome when it is caused by forces *other* than racial prejudice, such as differences in partisanship or socioeconomic status.⁸⁸ Nor is there consensus that polarization *in voting* is the quantity of interest, as some scholars emphasize polarization *in policy preferences* instead.⁸⁹ Furthermore, courts have never resolved how extreme polarization must be to establish liability. And almost from the day polarization became a requirement, it has been clear that its measurement is complicated by residential integration, the presence of more than two racial groups, and the inevitable endogeneity of election results (above all, to the particular candidates competing).⁹⁰ All of these shortcomings, though, strike us as fixable rather than fatal. This also has been the judgment of the judiciary, which has productively analyzed polarization in hundreds of cases since 1986.⁹¹

As before, we are wary of generalizing based on only a pair of cases. But considered together, partisan symmetry and racial polarization in voting suggest that the Court does better when it turns for concepts to empirical political science than to high democratic theory. Before they ever appeared in the Court's case law, symmetry and polarization had been precisely defined and then measured using large volumes of data as well as methods that

district court's use of "methods standard in the literature for the analysis of racially polarized voting," *id* at 53 n 20.

⁸⁶ Geographic compactness is also a prerequisite for liability for vote dilution, while responsiveness is a factor to be considered at the later totality-of-circumstances stage. See *id* at 45, 50.

⁸⁷ See *id* at 52–53 (referring to "two complementary methods of analysis—extreme case analysis and bivariate ecological regression analysis").

⁸⁸ See, for example, *League of United Latin American Citizens, Council No 4434 v Clements*, 999 F2d 831, 854 (5th Cir 1993) (en banc).

⁸⁹ See, for example, Christopher S. Elmendorf and Douglas M. Spencer, *Administering Section 2 of the Voting Rights Act after Shelby County*, 115 Colum L Rev 2143, 2195–2215 (2015).

⁹⁰ See, for example, Christopher S. Elmendorf, Kevin M. Quinn, and Marisa A. Abranjano, *Racially Polarized Voting*, 83 U Chi L Rev 587, 611–19 (2016); Nicholas O. Stephanopoulos, *Civil Rights in a Desegregating America*, 83 U Chi L Rev 1329, 1386–87 (2016).

⁹¹ See Ellen Katz, et al, *Documenting Discrimination in Voting: Judicial Findings under Section 2 of the Voting Rights Act since 1982*, 39 U Mich J L Ref 643, 663–75 (2006).

steadily improved over time.⁹² These properties meant that when the ideas came to the Court's attention, they were ready for prime time. They were not lofty abstractions that had yet to be made concrete, but rather practical concepts whose scope and calculation were already established. Our view is that this approach—adopting concepts previously formulated and refined by empirical social scientists—is generally advisable. It lets the Court benefit from the efforts of other disciplines, while avoiding reliance on concepts articulated at too high a level of generality to be legally useful.

C. Poor Relationships

We turn next to examples of poor and effective conceptual *relationships* in constitutional law. We also reiterate our earlier caveats: that the cases we highlight are not necessarily representative, that our discussion of each case is relatively brief, and that we mean for our descriptive analysis to have normative implications for the structure of constitutional doctrine.

That said, the *narrow tailoring* requirement of strict scrutiny is our first example of an unhelpful constitutional relationship. As a formal matter, this requirement states that, to survive review, a challenged policy must be “necessary”⁹³ or “the least restrictive means”⁹⁴ for furthering a compelling governmental interest. In practice, the requirement is implemented sometimes in this way and sometimes by balancing the harm inflicted by a policy against the degree to which it advances a compelling interest—with a heavy thumb on the harm's side of the scale.⁹⁵ Narrow tailoring is ubiquitous in constitutional law, applying to (among other areas) explicit racial classifications,⁹⁶ policies that burden

⁹² See, for example, Andrew Gelman and Gary King, *Enhancing Democracy through Legislative Redistricting*, 88 Am Polit Sci Rev 541, 545–46 (1994); Bernard Grofman, Michael Migalski, and Nicholas Noviello, *The “Totality of Circumstances Test” in Section 2 of the 1982 Extension of the Voting Rights Act: A Social Science Perspective*, 7 L & Pol 199, 202–09 (1985).

⁹³ *Adarand Constructors, Inc v Pena*, 515 US 200, 230 (1995).

⁹⁴ *Ashcroft v American Civil Liberties Union*, 542 US 656, 666 (2004).

⁹⁵ See Richard H. Fallon Jr, *Strict Judicial Scrutiny*, 54 UCLA L Rev 1267, 1330 (2007). It is also worth clarifying how narrow tailoring fits into the terminology of words, concepts, and rules that we introduced earlier. We see it as a conceptual *relationship*, linking a challenged policy and an asserted governmental interest, that forms part of the doctrine of strict scrutiny.

⁹⁶ See, for example, *Adarand*, 515 US at 227.

rights recognized as fundamental under the Due Process Clause,⁹⁷ and measures that regulate speech on the basis of its content.⁹⁸

The fundamental problem with narrow tailoring is that there is no reliable way to tell whether a policy is actually necessary or the least restrictive means for promoting a given interest. Social scientific techniques are very good at determining whether a means is related (that is, correlated) to an end. They are also reasonably adept at assessing causation, though this is a more difficult issue. Other variables that might be linked to the end can be controlled for, and all kinds of quasi-experimental approaches can be employed.⁹⁹ But social scientific techniques are largely incapable of demonstrating necessity. A mere correlation does not even establish causation, let alone that a policy is the least restrictive means for furthering an interest. Even when causation is shown, it always remains possible that a different policy would advance the interest at least as well. Not every conceivable control can be included in a model, and the universe of policy alternatives is near infinite as well. In short, the gold standard of social science is proving that *X* causes *Y*—but this proof cannot guarantee that some *other* variable does not drive *Y* to an even greater extent.¹⁰⁰

A somewhat different critique applies to the balancing that courts sometimes carry out instead of means-end analysis. Here, the trouble is that the quantities being compared—the harm inflicted by a policy, either by burdening certain rights or by classifying groups in certain ways, and the policy’s promotion of a compelling governmental interest—are incommensurable, in the sense we outlined earlier. Social science has little difficulty with the comparison of quantities that are measured using the same scale. Familiar techniques such as factor analysis also enable quantities measured using different scales to be collapsed into a single composite variable.¹⁰¹ But there is little that social science can do when the relevant quantities are measured differently, cannot be collapsed, and yet must be weighed against each other. This kind of inquiry, as Justice Antonin Scalia once wrote, is akin to “judging whether a particular line is longer than a particular

⁹⁷ See, for example, *Roe v Wade*, 410 US 113, 155 (1973).

⁹⁸ See, for example, *Ashcroft*, 542 US at 666.

⁹⁹ See Lee Epstein and Gary King, *The Rules of Inference*, 69 U Chi L Rev 1, 2 (2002).

¹⁰⁰ See Mark A. Graber, *Unnecessary and Unintelligible*, 12 Const Comm 167, 167 (1995) (“No necessary means exist in many cases for realizing certain purposes.”).

¹⁰¹ See Nicholas O. Stephanopoulos, *Spatial Diversity*, 125 Harv L Rev 1903, 1938 (2012).

rock is heavy.”¹⁰² Instinct and intuition may assist in answering the question, but more rigorous methods are unavailing.

These faults of narrow tailoring seem irremediable to us. It is simply infeasible to have to determine a policy’s necessity or whether its harms are offset by its incommensurable benefits. Fortunately, an obvious alternative exists: the means-end analysis that courts conduct when they engage in *intermediate* scrutiny. In these cases, courts ask whether a policy is “substantially related” to the achievement of an important governmental objective.¹⁰³ A substantial relationship means either a substantial correlation or, perhaps, a causal connection.¹⁰⁴ Either way, the issue is squarely in the wheelhouse of social science, whose forte is assessing correlation and causation. We therefore recommend exporting this aspect of intermediate scrutiny to the strict scrutiny context—perhaps with an additional twist or two to keep the latter more rigorous than the former. For instance, a *strong* rather than merely substantial relationship could be required, or a *large* impact on the relevant governmental goal.

Our second example of a poor constitutional relationship is the *undue burden* test that applies to regulations of abortion, voting, and (when enacted by states) interstate commerce.¹⁰⁵ In all of these areas, a law is invalid if it imposes an undue burden on the value at issue: the right to an abortion,¹⁰⁶ the right to vote,¹⁰⁷ or the free flow of interstate commerce.¹⁰⁸ An initial problem with this test is the ambiguity of its formulation. It is unclear whether “undue” contemplates a link between a challenged policy and a

¹⁰² *Bendix Autolite Corp v Midwesco Enterprises, Inc.*, 486 US 888, 897 (1988) (Scalia concurring in the judgment).

¹⁰³ *United States v Virginia*, 518 US 515, 533 (1996).

¹⁰⁴ See, for example, *id.* at 573–74 (Scalia dissenting).

¹⁰⁵ Using our earlier terminology, the conceptual relationship here, between a challenged policy and an asserted governmental interest, essentially *is* the legal rule. This is not a problem for our analysis; it simply reflects the fact that doctrine is sometimes reducible to a single conceptual relationship.

¹⁰⁶ See, for example, *Planned Parenthood of Southeastern Pennsylvania v Casey*, 505 US 833, 874 (1992) (O’Connor, Kennedy, and Souter) (plurality) (“Only where state regulation imposes an undue burden on a woman’s ability to make this decision does the power of the State reach into the heart of the liberty protected by the Due Process Clause.”).

¹⁰⁷ See, for example, *Crawford v Marion County Election Board*, 472 F3d 949, 950, 952–54 (7th Cir 2007) (applying a constitutional test assessing whether a law constitutes “an undue burden on the right to vote”).

¹⁰⁸ See, for example, *Granholm v Heald*, 544 US 460, 493 (2005) (Stevens dissenting) (“[A] state law may violate the unwritten rules described as the ‘dormant Commerce Clause’ [] by imposing an undue burden on both out-of-state and local producers engaged in interstate activities.”).

governmental interest and, if so, what sort of link it requires. Precisely because of this ambiguity, no consistent definition exists of an undue burden. Instead, courts use different versions of the test, even within the same domain, of varying manageability.

For example, an undue burden is sometimes treated as synonymous with a *significant* burden. “A finding of an undue burden is a shorthand for the conclusion that a state regulation . . . plac[es] a substantial obstacle in the path of a woman seeking an abortion,” declared the joint opinion in *Planned Parenthood of Southeastern Pennsylvania v Casey*.¹⁰⁹ If an undue burden is understood in this way, we have no quarrel with it. The magnitude of a burden is measurable, at least in principle, and does not involve a policy’s connection with a governmental interest. It is a concept rather than a conceptual relationship.

On the other hand, an undue burden is sometimes construed as one that is *unnecessary* to achieve a legitimate governmental objective. The *Casey* joint opinion articulated the test in these terms as well: “Unnecessary health regulations that . . . present[] a substantial obstacle to a woman seeking an abortion impose an undue burden on the right.”¹¹⁰ So conceived, an undue burden falls victim to our earlier criticism of narrow tailoring. That is, there is no good way to tell whether a policy is the least restrictive means for accomplishing a given goal, meaning that there is also no good way to tell whether the burden imposed by the policy is undue.

On still other occasions, the undue burden test devolves into judicial balancing, with the severity of a policy’s burden weighed against the degree to which the policy promotes governmental interests. The burden is then deemed undue if it fails this cost-benefit analysis. As the Court has stated in the Dormant Commerce Clause context, where it “has candidly undertaken a balancing approach in resolving these issues,” a policy “will be upheld unless the burden imposed on such commerce is [] excessive in relation to the putative local benefits.”¹¹¹ Plainly, this formulation

¹⁰⁹ 505 US 833, 877 (1992) (O’Connor, Kennedy, and Souter) (plurality). See also *Burdick v Takushi*, 504 US 428, 434 (1992) (focusing on “the character and magnitude of the asserted injury to the rights protected by the First and Fourteenth Amendments”).

¹¹⁰ *Casey*, 505 US at 878 (O’Connor, Kennedy, and Souter) (plurality). See also *Burdick*, 504 US at 434 (inquiring into whether the policy imposing the burden is “narrowly drawn to advance a state interest of compelling importance”).

¹¹¹ *Pike v Bruce Church, Inc.*, 397 US 137, 142 (1970). See also *Storer v Brown*, 415 US 724, 730 (1974) (commenting that there is “no litmus-paper test” for voting regulations,

is also vulnerable to our challenge to narrow tailoring. Burdens on abortion, voting, or interstate commerce are no more commensurable with gains in governmental interests than are other types of rights burdens or the harms of racial classifications. Balancing under narrow tailoring is indistinguishable from balancing under an undue burden test.

Because several notions of an undue burden percolate in the case law, doctrinal progress is possible here without wholesale rejection of the status quo.¹¹² Instead, courts need discard only the versions that entail least-restrictive-means or balancing analyses, leaving them with the approach that equates an undue with a significant burden. Judicial scrutiny could then vary based on a burden's magnitude, with a severe burden leading to more stringent review and a lighter imposition prompting a more relaxed appraisal. This is already the method that courts most commonly use in the voting context,¹¹³ and it could be extended to the abortion and Dormant Commerce Clause domains—preferably with our amendment to strict scrutiny stripping it of its narrow tailoring prong.

D. Effective Relationships

In still other areas, no doctrinal revisions seem necessary because the existing conceptual relationships work well enough already. As a first example of effective relationships, take the *traceability* and *redressability* elements of standing. After appearing intermittently in the case law for years, these elements were constitutionalized in *Lujan v Defenders of Wildlife*.¹¹⁴ A plaintiff's injury must be "fairly traceable to the challenged action of the defendant," meaning that "there must be a causal connection between the injury and the conduct complained of."¹¹⁵ Additionally, "it must be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision."¹¹⁶

and that "[d]ecision in this context . . . is very much a matter of degree" (quotation marks omitted).

¹¹² By "doctrinal progress," we simply mean articulating a more effective conceptual relationship. Of course, improvement on this axis may result in trade-offs along other dimensions.

¹¹³ See, for example, *Burdick*, 504 US at 434 ("[T]he rigorousness of our inquiry into the propriety of a state election law depends upon the extent to which a challenged regulation burdens First and Fourteenth Amendment rights.").

¹¹⁴ 504 US 555 (1992).

¹¹⁵ *Id.* at 560 (brackets and ellipsis omitted).

¹¹⁶ *Id.* at 561 (quotation marks omitted).

Traceability and redressability are often analyzed together; in fact, “[m]ost cases view redressability as an essentially automatic corollary of [traceability].”¹¹⁷ Both relationships are also highly tractable because they explicitly require causation, which is precisely the kind of link that social science is able to demonstrate. The essential traceability issue is whether the defendant’s challenged action *caused* the plaintiff’s harm. Similarly, the crux of redressability is whether the plaintiff’s desired remedy will *cause* her harm to be cured. These are pure matters of causation, undiluted by any hint of means-end necessity or incommensurable balancing.

Given that standing doctrine is often deemed “[e]xtremely fuzzy and highly manipulable,”¹¹⁸ some readers may be surprised by our favorable account. We do not mean to suggest that the causal questions posed by the doctrine—what impact certain measures have had or will have on a plaintiff—are easy to answer. The data needed to address these issues is often unavailable (or uncited), forcing courts to rely on their qualitative judgment. Even when rigorous evidence exists, there is no guarantee that courts will take it into account. Our claim, then, is only that the traceability and redressability elements are appealing *in principle* because of their emphasis on causation. In practice, the necessary causal inquiries may be difficult to conduct, or overlooked even when they are feasible.

Fewer of these caveats are required for our second example of a successful constitutional relationship: the *Necessary and Proper Clause*, which authorizes Congress to enact any laws that are “necessary and proper for carrying into Execution” its enumerated powers.¹¹⁹ At first glance, the Clause appears to exemplify a poor relationship because it stipulates that a law must be “necessary” to be permissible. But the Court has held that “‘necessary’ does not mean necessary” in this context.¹²⁰ Instead, it

¹¹⁷ Richard M. Re, *Relative Standing*, 102 Georgetown L J 1191, 1217 (2014). See also *Massachusetts v Environmental Protection Agency*, 549 US 497, 543 (2007) (Roberts dissenting) (“As is often the case, the questions of causation and redressability overlap.”).

¹¹⁸ Cass R. Sunstein, *What’s Standing after Lujan? Of Citizen Suits, “Injuries,” and Article III*, 91 Mich L Rev 163, 228 (1992).

¹¹⁹ US Const Art I, § 8, cl 18. Here too, the conceptual relationship essentially is the legal rule itself. See note 105.

¹²⁰ Graber, 12 Const Commen at 170 (cited in note 100). See also, for example, *United States v Comstock*, 560 US 126, 134 (2010) (“[T]he word ‘necessary’ does not mean ‘absolutely necessary.’”).

means “convenient, or useful or conducive to the authority’s beneficial exercise.”¹²¹ Under this standard, a law will be upheld if it “constitutes a means that is rationally related to the implementation of a constitutionally enumerated power.”¹²²

So construed, the Necessary and Proper Clause essentially demands that a statute be *correlated* with the promotion of a textually specified goal. That is, the statute must make the goal’s achievement at least somewhat more likely, or must lead to at least a somewhat higher level of the goal. Needless to say, it is relatively straightforward to identify a correlational link between a means and an end. Doing so, in fact, is one of the simpler tasks that can be asked of social science. This is why we approve of the sort of relationship that must be demonstrated under the Clause; it is the sort whose existence can be proven or rebutted with little room for debate.

However, we note that the Court has recently begun to revive the “Proper” in “Necessary and Proper”—and to infuse into it requirements other than a means-end correlation. In *National Federation of Independent Business v Sebelius*,¹²³ in particular, the Court held that the Clause authorizes neither the exercise of “great” (as opposed to “incidental”) powers, nor the passage of “laws that undermine the structure of government established by the Constitution.”¹²⁴ We regard these developments as unfortunate. Both the significance of a power and a law’s consistency with our constitutional structure are normative matters that are poorly suited to empirical examination. The insertion of these issues into the doctrine has blurred what was previously an admirably clear relational picture.

CONCLUSION

Our inquiry into the social scientific disciplines of conceptualization and measurement suggests that they may have rich payoffs for lawyers. (To use a recurring term from our discussion, they are fecund.) Examining legal doctrines through the lens of conceptualization, we argue, allows us to evaluate what are good and bad concepts and relationships in law. We draw on one set of social science criteria for good concepts, which includes that they

¹²¹ *Comstock*, 560 US at 133–34 (quotation marks omitted). See also *National Federation of Independent Business v Sebelius*, 132 S Ct 2566, 2591–92 (2012).

¹²² *Comstock*, 560 US at 134.

¹²³ 132 S Ct 2566 (2012).

¹²⁴ *Id* at 2591–92 (quotation marks omitted).

are resonant, have a stipulated domain, can be applied consistently, are fecund, are distinct from neighboring concepts, are useful, and can in principle be measured. Similarly, good relationships are those that involve causation or correlation, but not necessity or the weighing of incommensurable values.

We emphasize the criterion of potential measurability, which is another way of saying that courts should recognize concepts and relationships that are in principle verifiable. While in many cases this would be difficult to achieve in practice, the discipline of thinking in terms of whether X and Y can be reliably assessed, and whether X is linked to Y , would, we suspect, lead courts to greater consistency and thus predictability. In particular, our analysis suggests that courts should shy away from complex multipart tests that involve the ad hoc balancing of incommensurables.¹²⁵ Just as social scientists require dependable measures across cases, legal doctrines that are measurable can be subjected to productive scrutiny, potentially leading to more coherent application of the law. In short, important rule-of-law values can be advanced through an approach to law that draws on what some might see as an unlikely source—social scientific thinking.

¹²⁵ For further discussion of this point, see Richard A. Posner, *Divergent Paths: The Academy and the Judiciary* 117–21 (Harvard 2016).