

The Epistemology of Second Best

Gary Lawson*

Second best theory “holds that where it is not possible to satisfy all the conditions necessary for [a] . . . system to reach an overall optimum, it is not generally desirable to satisfy as many of those conditions as possible.” Adrian Vermeule, Foreword: System Effects and the Constitution, 123 HARV. L. REV. 4, 17 (2009). In other words, if you are not moving all the way to the ideal state of affairs, it is unclear whether partial moves that seem to go in the direction of the ideal make the world “better” or “worse”—with “better” or “worse” defined by the same criteria (whatever they may be) that defined your ideal. This Essay shows how second best theory is even more important and even more (for want of a better word) subversive than its most familiar applications suggest. Second best considerations lurk at the core of all processes of acquiring or pursuing knowledge, including, but not at all limited to, legal knowledge. Put simply, even assuming away the costs of acquiring and processing new information, more knowledge will not necessarily lead to better decisions, no matter what you think makes a decision better. The capacity of additional information to lead to better decisions depends on (1) the shape of the path towards full or ideal knowledge, (2) one’s location on that path at a particular moment of decision, and (3) the likelihood that one will be able to follow that path to its end. All three of these factors are highly contingent and often difficult—and perhaps impossible—to ascertain. The bottom line is that knowing less can lead to better decisions than decisions made while knowing more. That will not always be the case. But it might sometimes be the case. There is an optimum amount of knowledge for any particular decision, and supraoptimal knowledge can be just as bad—from the standpoint of decisional accuracy—as suboptimal knowledge. This has potential implications for, among other things, the role of expertise in administrative law and evidence law.

Introduction

Imagine an ideal state of affairs. It can be any state of affairs, such as a political structure, an economic equilibrium, or a knowledge base for decision-making. The criteria for defining that state as ideal can be anything that you wish them to be; indulge your deepest preferences. Now imagine that, in the real world, you have not attained that ideal state. You are offered a chance to change the real world, at a cost small enough to be insignificant to your decision process, in a way that seems to move the world towards your

* Philip S. Beck Professor, Boston University School of Law. I am grateful to David Lyons, Mike Pardo, Larry Solum, and the participants at a workshop at Boston University School of Law for their insightful suggestions, many of which I have unwisely not followed.

avored outcome but without fully realizing the ideal state. Do you make the change?

The obvious answer is something along the lines of “well, of course.” Who wouldn’t want to make the world look more like their ideal at minimal cost? It sounds too good to be true. And, indeed, it might in fact be too good to be true. Those familiar with second best theory see the looming trap.

Second best theory “holds that where it is not possible to satisfy all the conditions necessary for [a] . . . system to reach an overall optimum, it is not generally desirable to satisfy as many of those conditions as possible.”¹ In other words, if you are not moving all the way to the ideal state of affairs, it is unclear whether partial moves that seem to go in the direction of the ideal make the world “better” or “worse”—with “better” or “worse” defined by the same criteria, whatever they may be, that defined your ideal in the first place.² The world of second best is a messy place that often turns seemingly obvious answers into nasty epistemological puzzles.

Second best theory is perhaps most widely known through its formalization in neoclassical welfare economics,³ where it has a technical meaning concerning non-Pareto states. But the basic idea that movements within nonideal worlds are hard to evaluate, and that nonideal conditions in one part of a system may call for seemingly nonideal moves in other parts of the system, has found many applications in law, policy, and social science more generally, in contexts ranging from national security law⁴ to consumer

1. Adrian Vermeule, *Foreword: System Effects and the Constitution*, 123 HARV. L. REV. 4, 17 (2009).

2. For a characteristically thoughtful and accessible introduction to the concept of second best, see Lawrence B. Solum, *Legal Theory Lexicon 011: Second Best & Nonideal Theory*, LEGAL THEORY LEXICON (Apr. 25, 2021), https://lsolum.typepad.com/legal_theory_lexicon/2003/11/legal_theory_le_1.html [<https://perma.cc/4CNH-J6XT>].

3. The classic formulation appears in R.G. Lipsey & Kelvin Lancaster, *The General Theory of Second Best*, 24 REV. ECON. STUD. 11, 12 (1956), with an important elaboration in Peter Bohm, *On the Theory of “Second Best,”* 34 REV. ECON. STUD. 301, 301–02 (1967), and an interesting summary and clarification by one of the classic formulation’s authors in Richard G. Lipsey, *Reflections on the General Theory of Second Best at Its Golden Jubilee*, 14 INT’L TAX & PUB. FIN. 349 (2007). I am not a great fan of neoclassical welfare economics. See generally Gary Lawson, *Efficiency and Individualism*, 42 DUKE L.J. 53 (1992) (offering an “Austrian” critique of some basic neoclassical assumptions, such as the possibility of interpersonal comparisons of utility and an objective rather than subjective account of economic goods). Therefore, I express no view on the merit or value of second best theory in that specific context. For discussions by law and economics scholars who (unlike me) do buy into the neoclassical welfare framework, see *Symposium on Second-Best Theory and Law & Economics*, 73 CHI.-KENT L. REV. 3 (1998).

4. See Aziz Z. Huq, *Structural Constitutionalism as Counterterrorism*, 100 CALIF. L. REV. 887, 904–05 (2012) (arguing that judicial opinions in counterterrorism cases incorrectly assume “branches are first-best exemplars” and that “the theory of the second-best suggests that predictions based on the assumption of first-best conditions will be untrustworthy”).

protection law⁵ to separation of powers⁶ to progressive politics.⁷ In those myriad settings, the usual bite of second best theory is seen as cautioning against overoptimism regarding seemingly positive moves toward ideal positions and suggesting the deliberate introduction of countervailing errors as a possible betterment strategy (“two wrongs sometimes make a right”). As Adrian Vermeule aptly explains:

It is tempting to think that if it would be best for all variables in an institutional system to take on their optimal values, then it would be best for each variable to take on its optimal value, considering the variables one by one. The general theory of second best, however, exposes this idea as a fallacy of division. Because the variables interact, a failure to attain the optimum in the case of one variable will necessarily affect the optimal value of the other variables. Conversely, even if some or even all the variables in the system take on suboptimal or nonideal values, it is a fallacy of composition to think that the system overall must be suboptimal or nonideal. The interaction between several nonideal elements can produce an overall system that is as close as possible to the ideal.⁸

These ideas have a long pedigree, tracing back at least to classical times.⁹

The basic implications of this extended—and therefore somewhat metaphorical—conception of second best theory are powerful. Visualize the ideal state of the world as the surface of a smooth pond. Now introduce four jackhammers that churn the waters and create distortions in that previously ideal state. You can restore the smooth-pond ideal by removing all four jackhammers, but what if you remove three of them, or two, or just one? You

5. See Andrew T. Hayashi, *Myopic Consumer Law*, 106 VA. L. REV. 689, 693–94, 694 n.11 (2020) (identifying the author’s argument as an “application of the general theory of the second best to intra-personal choice”).

6. See Peter B. McCutchen, *Mistakes, Precedent, and the Rise of the Administrative State: Toward a Constitutional Theory of the Second Best*, 80 CORNELL L. REV. 1, 2–3 (1994) (proposing a “constitutional theory of the second best” as “a form of . . . damage control” in the wake of the Supreme Court’s “unwillingness” to invalidate the “post-New Deal administrative state” as incompatible with the Constitution).

7. See Jacob Barrett, *Social Reform in a Complex World*, 17 J. ETHICS & SOC. PHIL. 103, 108 (2020) (pointing to second best theory as a justification for making institutions more progressive).

8. Vermeule, *supra* note 1, at 17–18 (footnote omitted). See Huq, *supra* note 4, at 904–05. In discussing the second best theory, Professor Huq notes:

The [second best] theorem shows that once a system peels away from the ideal on one axis, and thereby is second-best, welfare cannot be maximized by hewing to remaining first-best conditions. As a result, a failure to optimize one variable in a complex system means that other variables may need to take suboptimal values in order to secure a desirable result.

Id. (footnote omitted).

9. See Vermeule, *supra* note 1, at 18–20 (discussing historical examples of second best reasoning going back as far as Polybius); see generally Adrian Vermeule, *Hume’s Second-Best Constitutionalism*, 70 U. CHI. L. REV. 421 (2003) (exploring David Hume’s use of second best reasoning in connection with English governmental structure).

don't know whether that is a positive move unless you know precisely how the jackhammers interact with each other. Perhaps the fourth jackhammer creates waves that trough out some of the waves caused by the first three, resulting in a smoother surface than would exist with just three jackhammers. Maybe adding a fifth jackhammer would create a wave interference pattern that would be smoother than removing some, but not all four, of the previous ones. Or maybe adding the fifth jackhammer would just make things much worse. Without a precise knowledge of the interaction patterns among the waves that is surely unattainable in many real-world situations, there is no way to know the effects of these marginal moves in advance—and perhaps no way to know those effects post hoc if the causal effects of individual pieces of a complex system are unascertainable. The possible variations on this theme are endless.

So understood, second best theory is a tremendously important and wildly underappreciated phenomenon.¹⁰ I do not intend here to explore either the fallacy of division or the fallacy of composition emphasized by Professor Vermeule, though both fallacies eminently merit careful consideration and deeper treatment in another forum. Rather, my goal in this Essay is to show how second best theory is even more important and (for want of a better word) subversive than its most familiar applications suggest. Second best considerations lurk at the core of all processes of applying knowledge, including, but not limited to, legal knowledge. Put simply, even assuming away the costs of acquiring and processing new information, decisions based on more knowledge will not necessarily better accomplish any defined goal—whether that goal is pursuing a substantive conception of justice, obtaining an economic equilibrium, or acquiring truth—than will decisions based on less knowledge. The capacity of additional information to lead to better decisions depends on (1) the shape of the path towards full or ideal knowledge, (2) one's location on that path at a particular moment of decision, and (3) the likelihood that one will be able to follow that path to its end. All three of these factors are highly contingent and often difficult, and perhaps impossible, to ascertain. The bottom line is that knowing less can sometimes lead to better decisions than knowing more. That will not always be the case. But it might sometimes be the case. And figuring out in any given instance whether one is dealing with a “not always” or a “sometimes” case can be very difficult.

Part I of this Essay sketches the epistemological problems posed by the application of second best theory to knowledge in general, highlighting the importance of knowing the shape of the path to knowledge in any given

10. Explaining why it is underappreciated and underemployed (and defining the normatively appropriate baseline level of appreciation and employment) is a task for someone else. For some tentative thoughts, see *infra* text accompanying notes 48–52.

context. Whenever the path to knowledge is not continuously upward sloping, there is a risk that acquiring and employing more knowledge will place one in a worse position to make decisions than one was in before. And oftentimes, there is no way to know what the path to knowledge looks like until one has fully traversed it. Part II puts a special focus on the implications of those problems for the role of expertise in legal decision-making. Experts can help generate better decisions if, but only if, their contributions occur on a portion of the path to knowledge that is upward sloping (or at least flat) towards the evidentiary optimum. It would be possible for the law to make administrative agencies or litigants that rely on experts take account of these epistemological realities in evaluating the deference appropriate to agency decisions or the admissibility of expert testimony in litigation. To some extent, the law already does so without explicitly acknowledging that considerations of second best underlie its doctrine. Part III ruminates—no stronger word is warranted—on some possible responses to these pervasive problems of second best epistemology.

My goal throughout this Essay is to raise questions and provoke thought, not to provide answers to what might well be intractable problems. Then again, maybe those problems all have simple solutions that I have missed; I would be entirely happy with that result if it proves to be so. But the only way to find out if there are answers is to start a serious conversation about the questions, and that is what I hope to accomplish here.

I. Less Is More . . . Unless It Is Less

Every judgment, on any subject matter in any context, is made in light of a specific body of evidence, which one can call the “evidence set” for that judgment. For humans, who are not omniscient beings with unlimited time and resources, the evidence set for any judgment will necessarily consist of less than everything in the universe. People have to make decisions on the basis of the information that they possess and can reasonably acquire. Indeed, given the limitations of time, space, and human cognition, it is quite likely that any particular evidence set will consist of substantially less than everything that could be relevant to the formation of an accurate judgment on the matter for which the evidence set was assembled. In those cases (which might well be *all* cases), if one has good reason to believe that the evidence set in a particular case is incomplete, and if one’s goal is to make an accurate judgment, is attempting to construct a larger evidence set for that decision a good idea?¹¹

11. This question is independent of how one cognitively processes whatever evidence set one ultimately ends up having. Whether reasoning from that evidence set follows a frequentist probabilistic approach, a Bayesian probabilistic approach, or some form of non-probabilistic reasoning, the process of reasoning (whatever form it takes) operates upon a specific evidence set.

Part of the answer to that question depends, of course, on the costs of acquiring and processing new information, including the costs that result from having to reconfigure and reanalyze evidence that one has already assembled. For purposes of this Essay, I want to put aside all of those crucial considerations of information acquisition and processing costs and assume that one can add relevant material to the evidence set at a minimal cost.¹² I am also assuming away any questions about the risk preferences of the actor; one can plug in any value for the actor's risk preference and nothing will change.¹³ From the standpoint of pure decisional accuracy, independent of any considerations of cost or risk preference, how could having more concededly relevant evidence ever be worse than having less? How can relative ignorance ever be a better basis for accurate decision-making than relative expertise?

It is actually quite easy for that to happen. A complete evidence set, properly applied, will, by definition, yield the most accurate judgment.¹⁴ But the results from even perfect application of *incomplete* evidence sets are

12. If anyone is interested in my ramblings on the cost issues when they are not assumed away, those ramblings can be found at GARY LAWSON, EVIDENCE OF THE LAW: PROVING LEGAL CLAIMS 133–35, 138, 142, 144–45 (2017).

13. For an intriguing argument that risk aversion is sometimes a good reason not to seek additional evidence, see Lara Buchak, *Instrumental Rationality, Epistemic Rationality, and Evidence-Gathering*, 24 PHIL. PERSP. 85, 108–09 (2010). I am grateful to Michael Pardo for bringing this argument to my attention.

14. At the risk of tedium: I make no claims about what constitutes proper application of an evidence set or how one specifies the contours of an ideal evidence set. In particular, I say nothing about how one defines the reference class for probabilistic judgments. See Ronald J. Allen & Michael S. Pardo, *The Problematic Value of Mathematical Models of Evidence*, 36 J. LEGAL STUD. 107, 114–16 (2007) (“The reference-class problem demonstrates that objective probabilities based on a particular class of which an item of evidence is a member cannot typically (and maybe never) capture the probative value of that evidence for establishing facts relating to a specific event.”). I believe that the key points about second best theory apply without regard to how one defines ideal states or evidence sets. It is, however, possible—I am not a philosopher, so I am not certain—that the present argument has relevance only to a correspondence account of truth—i.e., “the idea that truth consists in a relation to reality,” but not to a coherentist account of truth—i.e., the notion that “the truth of any (true) proposition consists in its coherence with some specified set of propositions.” Marian David, *The Correspondence Theory of Truth*, STAN. ENCYC. PHIL. (May 28, 2015), <https://plato.stanford.edu/entries/truth-correspondence/> [<https://perma.cc/3W35-MP6H>]; James O. Young, *The Coherence Theory of Truth*, STAN. ENCYC. PHIL. (June 26, 2018), <https://plato.stanford.edu/entries/truth-coherence/> [<https://perma.cc/XXS4-JWQB>]. Because the relationship among propositions is itself an aspect of reality, coherence theories may be a subspecies of correspondence theories, in which case second best problems are truly universal. At a minimum, however, the second best problems outlined here apply to the classical version of a correspondence theory, to which I subscribe and which the law takes for granted. See Gary Lawson, *Proving the Law*, 86 NW. U. L. REV. 859, 866 & n.23 (1992) (defining the correspondence theory of truth as reflecting a view that “reality exists independently of its acknowledgment by any conscious mind, and the cognitive function of consciousness is to perceive this preexisting reality, not to create its own objects of knowledge”); MIRJAN R. DAMAŠKA, EVIDENCE LAW ADRIFT 95 (1997) (“[U]nless some variant of the view that truth is a matter of correspondence to facts is accepted, our present evidentiary arrangements are deprived of meaning.”).

much less clear. A smaller, incomplete evidence set can be epistemically “better” as a basis for decisions—i.e., more likely to gauge reality—than a larger, but still incomplete one.

Posit, as the epistemological ideal, perfect application—whatever one thinks that means in any given context—of a fully complete evidence set that contains all potentially relevant information. In order to attain that ideal, one must first assemble the complete evidence set. Absent something like the cosmic cube or the infinity gauntlet, that assembly process must take place over time and space; in the words of the old Johnny Cash song, you “get it one piece at a time.”¹⁵ Thus, at any specific moment before the evidence set is fully assembled, you will have a subset of the complete evidence set, resulting from whatever assemblage efforts you have made up to that point. Any new evidence acquired that does not complete the evidence set will move you some distance along the path to completeness. And any decision that is made without the fully complete evidence set will be made at some specific point along that path. That is where second best theory rears its head.

If the path to perfect decisional accuracy is continuously upward sloping, one can plausibly say that more information leads to better judgments than does less information—or at least that more information will not lead to worse judgments than will less information. Every marginal move along such a continuously upward-sloping path is, by definition, a step in the right direction. But what would justify such an assumption about the path to knowledge? There are many possible shapes of a path to knowledge. Some paths might be upward sloping and linear, in which case more knowledge will always be better than less at a consistent rate. Some paths might be continuously upward sloping but nonlinear, in which case more information will always be better than less but in varying degrees. (The different degrees do not matter for purposes of this Essay, but they could matter a great deal if one tried to integrate acquisition and processing costs into a model of decision-making.) Some paths might be wavy, like a sine curve, but with a gradual upward slope. In that case, more information could lead either to a peak or a trough, depending on where you start and what you add. One can even imagine paths to knowledge that are downward sloping for most of their real-world time but then dramatically rise near the end of the path. In those instances, more knowledge will systematically lead to worse decisions until the very end of the path. Consider, for example, the possibility of an afterlife. One is not likely to acquire much affirmative evidence for such a thing during one’s life, and the longer one lives and looks, the less probable the result will appear. But *if*, hypothetically, an afterlife actually exists, one will gain a very

15. JOHNNY CASH, *One Piece at a Time*, on ONE PIECE AT A TIME (Columbia Records 1976).

important addition to the evidence set upon dying.¹⁶ At that point, the relevance of new evidence to good decision-making will tilt sharply upward—though perhaps too late to make any actual contribution to good decision-making. What seemed like contributions to good decision-making during life will be shown to be part of a long, downward-sloping portion of the path.¹⁷

Suppose that the path to knowledge has dips and gullies as it gradually rises to completion. At any given point on that wavy curve, adding new evidence to the evidence set—i.e., moving forward toward completeness—may send you on a downward spiral, at least for a time. Of course, if you acquire every relevant piece of information, you will eventually get to your goal of perfect accuracy, so more information is better than less if the acquisition of more information completes the evidence set. At any specific point along that path short of completeness, however, moving “forward” may leave you in a worse position than staying put or moving “backward.”

Of course, moving forward might in fact make you better off. Second best theory does not remotely say that more knowledge is always worse than less. It says only that, much of the time, you don’t know (and possibly can’t know) whether that is the case. To know whether you will be made better or worse off from a specific marginal move increasing the size of an evidence set requires knowing (1) the shape of the path to fully accurate knowledge, and (2) where you are on the path at the moment of that particular marginal move.

Examples of such phenomena are easy to imagine, especially when one is engaging in inferential or abductive reasoning.¹⁸ Suppose that one is trying

16. Cf. JOHN HICK, FAITH AND KNOWLEDGE 195 (2d ed. 1966) (employing the possibility of an afterlife to allow religious claims to satisfy the verificationist criteria for cognitively meaningful statements).

17. This possibility lies at the core of Pascal’s Wager. See Richard Popkin, *Pascal, Blaise*, in 6 THE ENCYCLOPEDIA OF PHILOSOPHY 51, 54–55 (Paul Edwards ed., 1967) (“[S]ince eternal life and happiness is a possible result of one choice (if God does exist) and since nothing is lost if we are wrong about the other choice . . . then the reasonable gamble, given what may be at stake, is to choose the theistic alternative.”).

18. On abduction, see Lawrence Solum, *Legal Theory Lexicon: Inference to the Best Explanation (Abduction)*, LEGAL THEORY BLOG (Dec. 27, 2020), <https://lsolum.typepad.com/legaltheory/2020/12/legal-theory-lexicon-inference-to-the-best-explanation-abduction.html> [<https://perma.cc/59ES-LG5D>]. I harbor a suspicion that abduction may be reducible to some combination of deduction and induction, but people who are definitely smarter than I am about this sort of thing believe otherwise. See Gary Lawson, *Comment on Brewer: Form and Content in Legal Proof (or Why Everybody Wins—or at Least Gets a Participation Trophy)*, 97 B.U. L. REV. 2321, 2325 (2017) (admitting that “hav[ing] never thought carefully about whether analogy and abduction are epistemologically reducible to induction and deduction or are possible sources of knowledge in their own rights,” Scott Brewer’s “chances of [] being right are pretty good”); Scott Brewer, *Agonophobia (Fear of Contest) in the Theory of Argument?: The Case of Gary Lawson’s Evidence of the Law*, 97 B.U. L. REV. 2303, 2312 (2017) (“There are exactly four modes of logical inference: deduction, induction, analogy, and abduction (synonymously ‘inference to the best explanation’).”).

to decide whether an adverse personnel action against an employee was taken as a result of anti-union animus in violation of the National Labor Relations Act.¹⁹ The evidence set at time T_1 consists of a body of testimony and documents showing acts of insubordination and incompetence by the employee. A reasonable judgment based on that evidence set would suggest reasons besides anti-union animus for the action. At time T_2 , we add to the evidence set a document written by a manager saying, “We need to fire this employee because of her union organizing.” Now it starts to look like maybe the initial judgment was mistaken.²⁰ Then, at T_3 , we add that (a) the manager’s document was written on April 1, (b) the manager who wrote it was a known prankster who loved making jokes on April Fool’s Day, and (c) there are documents purporting to be from that manager from April Fool’s Day of each of the previous five years saying similar things about other employees, none of whom ever suffered any adverse personnel actions. The initial judgment starts looking better again. We then add at T_4 , after further investigation, that the documents from the previous five years were all forgeries. Which of those marginal additions to the evidence set leads to a “better” decision?

There is no way to know the answer without already knowing the “right” decision that would be made in light of the fully complete evidence set (which, of course, may include many items going well beyond those listed above). But whatever the “right” answer may be, half of the additions to the evidence set described above will point you in the “wrong” direction. The above example illustrates the point starkly because each addition to the evidence set materially affects the decision that would likely be reached at each discrete point in time. But the bite of second best theory does not depend on having new items of evidence change the tentative decision. Even if all of the items added at T_1 – T_4 pointed in exactly the same direction, it would not mean that they were pointing in the “right” direction rather than leading you to progress (or regress) along a temporary downward spiral on a sometimes downward-sloping path to knowledge. Perhaps adding further evidence will merely give one a false sense of confidence in a decision that will eventually be shown to be wrong once the evidence set is complete and one sees where one happened to be on the curve at that past moment of decision.

To be sure, there is an argument for expanding the evidence set that does not depend on whether any particular marginal addition will immediately lead to a better decision. If the new evidence is part of the ideal evidence set, one cannot get to the complete evidence set without acquiring that piece. One

19. See 29 U.S.C. § 158 (2018) (establishing that it is an unfair labor practice for an employer to hire or terminate an employee “to encourage or discourage membership in any labor organization”).

20. Bayesians can easily translate anything said in this Essay into the language of updating probabilities. That translation will not change anything regarding the basic problems of second best.

must travel the entire path of the curve, with all of its ups and downs (if indeed it has ups and downs), in order to get to the end. Isn't it, therefore, valuable to have that evidence in hand as a necessary step on the path to completeness?

If one has good reasons to think that one might eventually end up with a complete evidence set, then there is an argument—putting aside, as we have been doing, questions of cost and risk preference—for taking those necessary steps. But how likely is it that one will eventually end up with a complete evidence set? If that prospect is remote—or its likelihood is simply unknowable—then planning for that eventuality may not make much sense. If the stopping point on your journey to truth is going to be an evidence set that is less than fully complete, then the only relevant question for purposes of decisional accuracy is whether, at any given margin, additional evidence puts you on an upward- or downward-sloping part of the path to accuracy. And that is something that is very hard to know. Throw in the thus-far-neglected matters of cost, and acquiring more evidence can be a very problematic move.

More importantly for present purposes, even if acquiring that additional evidence makes sense as a long-term move, that does not tell you *what to do with that additional evidence at the present moment of decision*. Maybe it should be part of your present decision process. Maybe you should just bank it for the day, if that day ever comes, when the evidence set is complete, and you should ignore it for now. Whether to acquire more information and whether, in a present decision, to use new information that has been acquired are two distinct inquiries,²¹ and they might have different answers.

Hence, for purposes of any specific decision process, more knowledge might be better than less knowledge, but it might not. That is really all that second best theory has to say—though that is concededly quite a bit.

As framed thus far, the point about second best theory is one of general epistemology. It applies to all judgments in all contexts. There is nothing distinctive about its application to legal judgments. But since I am a law professor rather than a philosopher, the most obvious applications that leap to my mind involve legal judgments, so I will apply this notion of second best theory to a pervasive legal problem: the role of experts in legal decision-making.

II. When Experts Aren't

Law has no monopoly on the use of experts, but experts play a crucial role in many aspects of law. The use of experts in litigation is notoriously

21. See Buchak, *supra* note 13, at 108 (comparing “evidence-using,” which primarily serves epistemological goals, with “evidence-gathering,” which serves both epistemological and practical goals).

pervasive; studies show that anywhere from sixty to ninety percent of litigated cases involve expert testimony.²² Evidence law worries enough about expert testimony to craft special rules regarding it.²³ And modern administrative law is, to a large extent, structured around the idea of expertise, which, for more than a century, has been the central justifying notion for the administrative state. As Reuel Schiller explains:

Progressive reformers of the 1910s and 1920s proffered expertise as the solution to a host of problems disturbing the social order at the beginning of the twentieth century. They believed that the scientific method could be applied to these problems. Technocratic experts, having arrived at a solution to a given problem, should be allowed to implement it.²⁴

This reverence for expertise in administrative law goes beyond being “a part of the narrative explaining legislative delegations to administrative agencies.”²⁵ It “so deeply pervades the scholarly literature that it is difficult to isolate highly relevant pieces.”²⁶ More pointedly, it underlies the Supreme Court’s validation of legislative subdelegations, as was encapsulated in the Court’s refreshingly straightforward comment that “in our increasingly complex society, replete with ever changing and more technical problems, Congress simply cannot do its job absent an ability to delegate power under broad general directives.”²⁷

In prior work, I have discussed at length the constitutional issues involved in legislative subdelegations,²⁸ and in current work I am exploring

22. See Andrew W. Jurs, *Expert Prevalence, Persuasion, and Price: What Trial Participants Really Think About Experts*, 91 IND. L.J. 353, 356–59 (2016) (examining both the frequency of expert testimony used in civil trials and the mean number of experts used in each trial). Most of those studies are dated and all of them are limited, so they provide at best only a rough estimate of the frequency of expert witness use. See *id.* at 364–65 (“In sum, updated baseline research is necessary since much of the basic baseline data about experts is twenty or more years old, and while it is extensive, there remain many unresolved questions about experts.”). A rough estimate that amounts to “lots of experts” is good enough for my purposes.

23. See, e.g., FED. R. EVID. 702–706 (outlining the necessary qualifications for an expert witness as well as scope and limitations of expert testimony).

24. Reuel E. Schiller, *The Era of Deference: Courts, Expertise, and the Emergence of New Deal Administrative Law*, 106 MICH. L. REV. 399, 413 (2007) (footnotes omitted).

25. Emily Hammond Meazell, *Presidential Control, Expertise, and the Deference Dilemma*, 61 DUKE L.J. 1763, 1772 (2012) (emphasis added).

26. Edward H. Stiglitz, *Delegating for Trust*, 166 U. PA. L. REV. 633, 644 (2018). My choice for the most relevant piece would be Sidney A. Shapiro, *The Failure to Understand Expertise in Administrative Law: The Problem and the Consequences*, 50 WAKE FOREST L. REV. 1097, 1097 (2015).

27. *Mistretta v. United States*, 488 U.S. 361, 372 (1989).

28. See, e.g., GARY LAWSON & GUY SEIDMAN, “A GREAT POWER OF ATTORNEY”: UNDERSTANDING THE FIDUCIARY CONSTITUTION 109–26 (2017) (discussing conceptions of the non-subdelegation principle and agency theory as they existed in the eighteenth century); Gary Lawson, *A Private-Law Framework for Subdelegation*, in THE ADMINISTRATIVE STATE BEFORE

the nature of expertise and how non-experts can identify and evaluate the claims of experts.²⁹ I want to put both of those very large topics aside for the moment and focus on a much more specific problem: Assuming that one has correctly identified a topic appropriate for expertise and an expert appropriate for that topic, and assuming that the expert is honestly and competently applying expertise to that topic, is there good reason to think that reliance on the expert will improve decisional accuracy?

The stakes of this inquiry are very high, as recent events involving COVID-19 amply demonstrate. Regardless of which governmental level or institution one picks—federal or state, executive or legislative—the decisions regarding a public response to COVID-19 have all been cloaked in the mantle of “expertise.” For most of 2020, Anthony Fauci³⁰ and Deborah Birx³¹ were as visible as President Donald Trump and Vice President Mike Pence at White House press conferences discussing COVID-19.³² Not much has changed regarding reliance on expertise under President Joe Biden and Vice President Kamala Harris. Indeed, as a candidate, Joe Biden said that “leadership requires listening to experts and communicating credible information to the American public” and that as President he would “[e]nsure that public health decisions are made by public health professionals and not politicians.”³³ Numerous state governors and members of Congress say the same thing on a daily basis.

THE SUPREME COURT: PERSPECTIVES ON THE NONDELEGATION DOCTRINE 123 (Peter J. Wallison & John Yoo eds. 2022) (discussing the “line-drawing problem” for permissible and impermissible subdelegation); Gary Lawson, *Discretion as Delegation: The “Proper” Understanding of the Nondelegation Doctrine*, 73 GEO. WASH. L. REV. 235, 236 (2005) (seeking to prove that there is a strong constitutional basis for traditional non-subdelegation doctrine); Gary Lawson, *Delegation and Original Meaning*, 88 VA. L. REV. 327, 333–34 (2002) (exploring the original textual basis for non-subdelegation doctrine).

29. See Gary Lawson, *The Fiduciary Social Contract*, SOC. PHIL. & POL’Y, Summer 2021, at 25, 46–47 (2021).

30. Dr. Fauci has been director of the National Institute of Allergy and Infectious Diseases for more than three decades. John Travis, *Meet Anthony Fauci, the Epidemic Expert Trying to Shape the White House’s Coronavirus Response*, SCI. INSIDER (Mar. 14, 2020), <https://www.science.org/content/article/meet-anthony-fauci-epidemic-expert-trying-shape-white-house-s-coronavirus-response> [<https://perma.cc/2LGF-5TND>].

31. Since 2014, Dr. Birx has been U.S. Global AIDS Coordinator and U.S. Special Representative for Global Health Diplomacy, and for most of 2020 she was the federal government’s Coronavirus Response Coordinator. *Deborah L. Birx, M.D.*, U.S. DEP’T OF STATE (Jan. 20, 2017–Jan. 20, 2021), <https://2017-2021.state.gov/people/deborah-l-birx-md/index.html> [<https://perma.cc/DT5F-AKFZ>].

32. See, e.g., Kenya Evelyn, *Trump’s Top Health Officials Seen but Not Heard as Coronavirus Focus Shifts*, GUARDIAN (May 16, 2020, 8:00 AM), <https://www.theguardian.com/us-news/2020/may/16/coronavirus-health-experts-birx-fauci-trump> [<https://perma.cc/79WZ-C54D>] (discussing Fauci and Birx’s reemergence after a brief withdrawal following their heavy media presence beside Donald Trump).

33. Joe Biden, *FACT SHEET: The Biden Plan to Combat Coronavirus (COVID-19) and Prepare for Future Global Health Threats*, DEMOCRACY IN ACTION (Mar. 12, 2020), <https://>

The only noteworthy aspect of this real and proposed allocation of decisional authority is its public notoriety. Every day, crucial decisions on matters ranging from monetary policy to air pollution standards are less visibly made by unelected officials whose claims to power are rooted in supposed expertise. Four Supreme Court Justices have even suggested that agency department heads, who are political appointees, have a legal obligation to defer to the technical judgments of career experts within those agencies.³⁴ And why not, one might ask? Who would want decisions on such matters made from ignorance rather than from expertise?

The answer to that last question depends on the shape of the path to knowledge, where you are on the path to knowledge at a given moment in time, and where along that path reliance on expertise will move you. Depending upon the answers to those questions, the ignorant might be better deciders than the informed. Sometimes one might be able to make a reasonable guess about those matters by extrapolating from past experience with similar decisions. Past performance is no guarantee of future success, but it is not nothing, especially if it can give reasons to think that there are continuously upward-sloping paths to knowledge in certain circumstances, so that more knowledge in those settings can confidently be expected to lead to better decisions. If someone has successfully constructed hundreds of bridges that are still standing, there is good reason to think that the person knows something useful about bridge construction and that reliance on their expertise is likely to get you a good bridge. In circumstances where empirical evidence of success rates is not readily available, however, figuring out the shape of the path to knowledge is a much dicier operation. In those circumstances, making the assumption that experts will do better than non-experts is something of a blind guess (or perhaps an article of faith or ideological predilection).

Put another way: In any given context, there is an optimum amount of knowledge that will, in that context, yield the best possible judgment. A supraoptimal amount of knowledge is potentially just as bad as a suboptimal amount for purposes of decisional accuracy at a particular moment in time and space. In order to justify reliance on expertise, one must have some reason to think that, at the moment of decision, the non-experts possess a suboptimal amount of knowledge *and* that the experts can supply the optimum. Simply comparing the quantum of knowledge of the expert and

democracyinaction.us/2020/biden/bidenpolicy031220coronavirus.html
6KH2-KB6F].

[<https://perma.cc/6KH2-KB6F>].

34. *See* Dep't of Com. v. New York, 139 S. Ct. 2551, 2590 (2019) (Breyer, J., concurring in part and dissenting in part) (criticizing the Secretary of Commerce for introducing a citizenship question for the census against the recommendation of the Census Bureau). The majority opinion rejected this position. *See id.* at 2571 (accusing Justice Breyer's opinion of "subordinating the Secretary's policymaking discretion to the Bureau's technocratic expertise").

non-expert does not do the trick. As with Goldilocks, you need the amount of knowledge that is just right for the task at hand—neither too little nor too much.

Again, I emphasize that this is *not* remotely a categorical defense of relative ignorance as a basis for decisions. There are surely contexts in which more knowledge is better than less; otherwise, I would be out of a job very quickly. Some paths to knowledge do seem as though they are continuously upward sloping, or at least close to it, at clearly identifiable points along the path. The point is only that more knowledge is not *necessarily* better in *every* context. Sometimes it is going to be better, and sometimes it is going to be worse. It all depends on some context-sensitive factors that are often very, very difficult to know or even to guess about intelligently. Quite possibly, there is no way to make those judgments *ex ante* with any accuracy; the proof, if proof is ever to be found, will be in the *ex post* pudding when and if one can compare the results from application of different levels of knowledge in various settings.

Some potential legal implications follow from second best epistemology and its application to reliance on expertise. In administrative law, for example, one of the enduring problems is how non-experts such as judges (and law clerks) can evaluate the decisions of administrative agencies that are purportedly based on expertise. Suppose that the National Highway Traffic Safety Administration determines that reducing the crash-test speed at which automobile bumpers must sustain no damage from five miles per hour to two-and-a-half miles per hour will generate net positive benefits, claiming that the combined cost, fuel, and financing savings from lighter bumpers will outweigh the increased repair costs from more bumper damage in low-speed collisions, with no appreciable effects on either driver or pedestrian safety.³⁵ Those judgments are based largely on, among other things, engineering models that extrapolate from a limited body of field tests, economic models that make assumptions about things like discount rates, and judgments about the likely relative effects of regulations regarding bumper *integrity* and bumper *placement*. Opponents of the new regulations challenge the agency's judgment across all of these fronts. How are judges and law clerks—who are not engineers or economists, and who are not likely to be trained in empirical methods—supposed to adjudicate claims that the agency's judgments are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law”?³⁶

35. Why this example? For no better reason than that I spent six months of my life working on this problem as a law clerk, and the administrative record from that case is thus unhappily burned into my brain. See *Ctr. for Auto Safety v. Peck*, 751 F.2d 1336, 1338–42 (D.C. Cir. 1985).

36. 5 U.S.C. § 706(2)(a) (2018).

The New Deal answer, reflected in the Administrative Procedure Act's highly deferential ("arbitrary" or "capricious") language, was simply for judges to get out of the agencies' way and leave them alone unless their actions were so starkly irrational that they could not possibly have resulted from the exercise of reasoned expertise.³⁷ In the 1960s and 1970s, under pressure attributable to changing perceptions of how agencies are wont to behave, that deferential doctrine morphed into the modern approach under which courts demand that agencies explain *how* they reached their conclusions, even on technical matters. The courts, in other words, ask only—but definitely ask—whether the agency has taken a "hard look" at the problems before it.³⁸ As the Supreme Court recently articulated the inquiry while reviewing Federal Energy Regulatory Commission (FERC) rate-setting:

The disputed question here involves both technical understanding and policy judgment. The Commission addressed that issue seriously and carefully, providing reasons in support of its position and responding to the principal alternative advanced. In upholding that action, we do not discount the cogency of EPSA's arguments. . . . Nor do we say that . . . FERC made the better call. It is not our job to render that judgment, on which reasonable minds can differ. Our important but limited role is to ensure that the Commission engaged in reasoned decisionmaking—that it weighed competing views, selected a compensation formula with adequate support in the record, and intelligibly explained the reasons for making that choice.³⁹

37. See GARY LAWSON, *FEDERAL ADMINISTRATIVE LAW* 787–88 (9th ed. 2022) (offering support for the assertion that the language of the American Procedure Act was drafted so as to "permit only the most minimal judicial review of agency decisions").

38. The "hard look" idea is normally traced to *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 851–52 (D.C. Cir. 1970), but the idea first surfaced in some decisions decided the prior year. See *Pikes Peak Broad. Co. v. FCC*, 422 F.2d 671, 682 (D.C. Cir. 1969) ("We are satisfied that the Commission gave petitioners' predictions a hard look."); *Wait Radio v. FCC*, 418 F.2d 1153, 1160 (D.C. Cir. 1969) ("On balance we conclude the Commission's treatment, with its 'combination of danger signals,' belies the 'hard look' the application merited."). All three opinions were written by Judge Harold Leventhal, and all three involved review of Federal Communications Commission orders. The "hard look" principle, however, quickly migrated into general administrative law doctrine well beyond the context of the FCC. See, e.g., *Walter Holm & Co. v. Hardin*, 449 F.2d 1009, 1016 (D.C. Cir. 1971) ("What counts is the reality of an opportunity to submit an effective presentation, to assure that the Secretary and his assistants will take a hard look at the problems in the light of those submissions.").

39. *FERC v. Electric Power Supply Ass'n*, 136 S. Ct. 760, 784 (2016). The canonical formulation of the "hard look" inquiry by the Supreme Court is found elsewhere, but the formulation in *State Farm* is so vacuous as to be effectively meaningless. See *Motor Vehicle Mfrs. Ass'n of the United States v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The Court points out:

Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs

It is hard to see how courts could do much more (though it is easy to see how they could do much less⁴⁰) in the face of competing claims of expertise by agencies and those challenging agency decisions.

Second best theory suggests a modest but potentially important modification to the current scheme for judicial review of agency technical judgments. If agencies must give rational reasons for their actions—and if those reasons are, in some instances, grounded in claims of expertise—then some necessary premises of any agency claim for deference in those circumstances are: (a) that the problem at hand is, in principle, amenable to expertise; (b) that the agency has picked good experts; and (c) that there is reason to think that those experts have actually applied expertise to the problem. It is probably insufficient simply to assert, without further analysis, that a particular kind of technical judgment “is assuredly the sort of expertise that [an agency] preeminently possesses”⁴¹ without exploring to some degree the preconditions for reasonable reliance on expertise in a specific setting. More to the present point, it is also a necessary premise of a claim to expertise-based deference that one has reason to believe that expert knowledge moves one up rather than down the path to knowledge at the specific point of decision at issue. What reason does the agency have to think that application of expertise, in this specific context, will lead to a better decision than reliance on, for example, common sense, political judgment, or just plain old trial and error? Perhaps in certain cases there are reasons to think that expertise makes a positive contribution to the decision, based on past experiences with similar decisions, indications that one is likely dealing with a continuously upward-sloping knowledge path, or some such thing. Maybe there are reasons to think that, and maybe there aren’t. If there are no reasons in a specific case to think that more knowledge is better than less knowledge, one can at least expect agencies to acknowledge that fact, with whatever consequences that fact may have for the agency’s willingness to reconsider the decision in the future or to assert, with any given level of confidence, expected benefits from its action. In any event, an essential precondition to rational reliance on expertise is some showing that reliance on expertise is rational. Second best theory contributes one small, but potentially important, piece to the process of evaluating agency claims.

counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Id.

40. For an argument that doing less is both descriptively accurate across a large range of cases and normatively desirable, see Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355, 1356, 1361 (2016). For a countervailing argument in favor of forcing agency explanations of their technocratically based actions, see Emily Hammond Meazell, *Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science*, 109 MICH. L. REV. 733, 735–38 (2011).

41. *Ctr. for Auto Safety v. Peck*, 751 F.2d 1336, 1360 (D.C. Cir. 1985).

Acknowledgment of the limitations imposed by second best theory on agency reliance on expert decision-making is especially pertinent doctrinally in light of the Supreme Court's recent declaration in *Dep't of Commerce v. New York*⁴² that agency candor is a crucial part of reasoned decision-making. For most of the nation's history, at least some portion of the decennial census form asked respondents about their citizenship status. Questions about citizenship were removed from the 2010 census, and in 2018, the Department of Commerce proposed to reinstate citizenship questions for the 2020 census.⁴³ The Court summarized the Secretary of Commerce's stated reasons for the action:

In March 2018, Secretary of Commerce Wilbur Ross announced in a memo that he had decided to reinstate a question about citizenship on the 2020 decennial census questionnaire. The Secretary stated that he was acting at the request of the Department of Justice (DOJ), which sought improved data about citizen voting-age population for purposes of enforcing the Voting Rights Act (or VRA)—specifically the Act's ban on diluting the influence of minority voters by depriving them of single-member districts in which they can elect their preferred candidates. DOJ explained that federal courts determine whether a minority group could constitute a majority in a particular district by looking to the citizen voting-age population of the group. According to DOJ, the existing citizenship data from the American Community Survey was not ideal: It was not reported at the level of the census block, the basic component of legislative districting plans; it had substantial margins of error; and it did not align in time with the census-based population counts used to draw legislative districts. DOJ therefore formally requested reinstatement of the citizenship question on the census questionnaire.⁴⁴

A trial court determined that the Secretary's stated reason was pretextual based largely on evidence that the Commerce Department had decided to reinstate a citizenship question as early as 2017 and subsequently induced the Department of Justice formally to request the reinstatement on the basis of the Voting Rights Act (VRA). The Court upheld the district court's determination:

Altogether, the evidence tells a story that does not match the explanation the Secretary gave for his decision. In the Secretary's telling, Commerce was simply acting on a routine data request from another agency. Yet the materials before us indicate that Commerce went to great lengths to elicit the request from DOJ (or any other willing agency). And unlike a typical case in which an agency may

42. 139 S. Ct. 2551 (2019).

43. *Id.* at 2562.

44. *Id.* (citation omitted).

have both stated and unstated reasons for a decision, here the VRA enforcement rationale—the sole stated reason—seems to have been contrived.

We are presented, in other words, with an explanation for agency action that is incongruent with what the record reveals about the agency's priorities and decisionmaking process. . . . [W]e cannot ignore the disconnect between the decision made and the explanation given. Our review is deferential, but we are “not required to exhibit a naiveté from which ordinary citizens are free.”⁴⁵

While the specific holding of the case is merely that agencies are not supposed to lie about their reasons for action, the principle behind that holding runs deeper. Agencies can be less than candid about why they are taking action in many ways more subtle than straightforward lies. They can cloak an essentially ideological judgment in the language of technocracy—which, to be fair to agencies, is a practice forced upon them by a scheme of judicial review that often refuses to regard political or ideological judgments as legitimate reasons for agency action.⁴⁶ They can claim more certainty from data than is warranted by the record. And they can ask for deference to expertise when they have no good reason to think that expertise is actually leading to a better decision.

Second best theory does not say that reliance on expertise is always and everywhere unjustified. It says only that there are certain epistemological preconditions for reliance on expertise and that those who claim legal force for their actions because of expertise should have some reason to think that those preconditions are satisfied—or at least should have the intellectual honesty and modesty to admit that there is an open question about it when there is genuine doubt. A small but important adjustment to “hard look” review could require agencies claiming deference (or, as they sometimes request on technical matters, “super-deference”⁴⁷) to include, as part of their explanation, the reasons to think that expertise is valuable in this specific context. What have agencies learned about the shape of the path to knowledge that is relevant to their action? Where does the agency think that it stands on that path? These are questions that are essential to decisional accuracy and therefore to an assessment of the reasoned basis for an agency decision. These

45. *Id.* at 2575 (quoting *United States v. Stanchich*, 550 F.2d 1294, 1300 (2d Cir. 1977) (Friendly, J.)).

46. See Kathryn A. Watts, *Proposing a Place for Politics in Arbitrary and Capricious Review*, 119 *YALE L.J.* 2, 84 (2009) (“The judiciary’s current formulation of arbitrary and capricious review, which focuses on whether agencies have adequately explained their decisions in technocratic rather than political terms, has incentivized agencies to hide behind technocratic façades.”).

47. See *Ctr. for Biological Diversity v. EPA*, 749 F.3d 1079, 1087–88 (D.C. Cir. 2014) (collecting circuit law to demonstrate the unique deference afforded agencies on matters within their technical expertise).

questions will not necessarily have clear answers, and one therefore cannot demand that agencies provide a kind of certainty regarding the basis for their decisions that is unattainable. But just as “hard look” review in general focuses less on making sure that agencies get the right answers than on making sure that agencies are at least asking the right questions, a second best adjunct to “hard look” review can make agencies acknowledge limitations on their claims that may presently be kept in the shadows. A rational explanation of an agency’s decision-making process would include how epistemological second best considerations were addressed and either accommodated or rejected. That would be a major step forward with regard to candor.

The law of evidence could similarly make a modest adjustment—or even a simple clarification requiring no modification—to its current framework for handling expert testimony to take account of second best concerns. Jurisdictions that follow or adapt some version of the *Daubert*⁴⁸ framework for assessing the admissibility of expert testimony require trial judges to screen proposed expert testimony to ensure, in the language of the Federal Rules of Evidence, that:

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.⁴⁹

It would not be difficult to consider, as part of inquiry (a), whether there is reason to think that expert testimony in any specific instance will move the decision process forward rather than backward along the relevant path to knowledge. As with administrative agency experts, it would not be feasible or reasonable to expect the proponent of expert testimony in litigation to prove the unprovable by conclusively demonstrating the shape of the relevant path to knowledge or how expert testimony will move along an upward-sloping part of the path. That is asking far too much. But it would be both feasible and reasonable to insist that proponents of expert testimony, and trial judges who are evaluating its potential helpfulness to the fact-finding

48. The framework gets its name from *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993). It is questionable whether the *Daubert* case actually sets forth what today is considered the *Daubert* framework, but that kind of transformation of cases into doctrines that go well beyond the cases for which they are named is commonplace. Obvious examples include *Chevron U.S.A. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984), and *Mathews v. Eldridge*, 424 U.S. 319 (1976).

49. FED. R. EVID. 702.

process, at least consider whether there is any reason to think that expert testimony will likely lead to better decisions. At a minimum, it is open to opponents of such testimony to try to show reasons why one would *not* expect expert testimony to prove helpful in a given context involving paths to knowledge that are not continuously upward-sloping. Doctrinally, the existing framework for judicial prescreening of expert testimony already accommodates such arguments in principle; casting those concerns in terms of second best problems may help clarify the basis for some of those challenges to expert testimony.

The key doctrinal question is whether the burden of proof regarding second best concerns is on the proponent or opponent of expert testimony. Must the proponent come forward with affirmative evidence that reliance on expert testimony makes sense in the case at hand or can the law plausibly presume continuously upward-sloping paths to knowledge absent some reason to think otherwise? Rule 702 suggests that the burden should be on the proponent to make the affirmative showing required by Rule 702(a), which includes a showing that expert testimony “will help . . . determine a fact in issue.” Expert testimony cannot reasonably be thought to help determine a fact in issue if the epistemological preconditions for thinking that it will do so are not met.

On the other hand, as a matter of statutory interpretation, it is surely possible to interpret Rule 702 to presuppose continuously upward-sloping paths to knowledge in which expert testimony would presumptively satisfy second best concerns. That presupposition may be factually false in any given instance, but Congress is under no obligation to legislate in accordance with objectively correct principles of epistemology. Thus, I am not saying that Rule 702 unambiguously places the burden of proof on the proponent of expert testimony to negate second best concerns. But it at least arguably does so as a matter of plain meaning.

These are just two possible applications of second best epistemology to recurring legal questions. There is nothing special about those applications beyond their relevance to some of my current research projects. If second best concerns are as universal as I posit them to be (at least for correspondence theories of truth), then literally any subject area can generate examples that give rise to analogous problems.

III. Avoiding Second Best Problems

Despite their ubiquity (and perhaps even universality), second best concerns seldom rise to the forefront in legal discourse. It is not so much that they are considered and dismissed as that they are not considered at all. Even in welfare economics, where the concept has received its most rigorous expression, second best theory sometimes seems to vanish from view. That is not entirely surprising. Second best theory recommends caution, modesty,

and qualifications on conclusions, and academics are not always receptive to the idea that they might not have the definitive answers to everything. Second best theory “is something of a party-pooper.”⁵⁰ As Richard Markovits once hypothesized, “many law professors and an increasing number of economists ignore Second Best Theory because they like clear bottom lines and correctly perceive that . . . analysis [that takes account of second best considerations] will often lead to conclusions that are fact-dependent and, on that account, contestable.”⁵¹ “In other words, second[.]best theory suggests that scholars often cannot make the kinds of claims that they would like to make with the level of certainty at which they would like to make them. Given a choice between their preference for claim making and taking seriously the epistemological problems posed by second-best reasoning, second-best reasoning comes out a big loser.”⁵²

But perhaps there are more direct responses to second best theory than sweeping it under a very large rug in a fit of academic ambition. Two possible responses spring quickly to mind; I strongly invite anyone to suggest others.

One response is to shift the burden of proof—in the sense of a burden of production⁵³—to the person alleging second best concerns. After all, second best concerns are a series of “ifs,” “maybes,” and “mights.” *If* paths to knowledge are not continuously upward-sloping, then *maybe* more knowledge will not be helpful because one *might* be on a downward-sloping part of the path. Okay, what next? The real question is whether it makes sense to believe, in a specific case, that one *is*—rather than *might be*—on such a path. There are obviously occasions on which an assumption of a continuously upward-sloping path to knowledge makes sense—and, over the span of time, such an assumption may be the closest account of actual knowledge development that one is likely to be able to generate. It is hard to argue that, as a general proposition, there was a better basis for decision-making in the Bronze Age than there is today, even though no one today would say that all relevant evidence sets are complete. If the appropriate

50. LAWSON, *supra* note 12, at 145.

51. Richard S. Markovits, *Symposium on Second-Best Theory and Law & Economics: An Introduction*, 73 CHI.-KENT L. REV. 3, 8 (1998).

52. LAWSON, *supra* note 12, at 145.

53. The term “burden of proof” is ambiguous in that it can refer either to the obligation of moving forward with evidence, or to the amount of evidence that one must produce in order to warrant a conclusion. It is sometimes conventional to describe the former as a *burden of production* and the latter as a *burden of proof* or a *burden of persuasion*. (The classic work is John T. McNaughton, *Burden of Production of Evidence: A Function of a Burden of Persuasion*, 68 HARV. L. REV. 1382, 1382–83 (1955). For a modern summary, see Michael S. Pardo, *The Paradoxes of Legal Proof: A Critical Guide*, 99 B.U. L. REV. 233, 241–43 (2019).) If it were up to me, I would call the former the *burden of proof* and the latter the *standard of proof*. But it is not up to me, so I will henceforth speak of the burden of production to describe the epistemological obligation to move forward with evidence to establish a point.

reference class is the entire sum of human experience, an assumption that knowledge is better than ignorance is a pretty good working hypothesis. At a more granular level, there are surely incremental additions to knowledge that do not generate complete evidence sets but that certainly seem to generate positive results by any plausible standard.

To be sure, that is not uniformly true. There are domains of decision-making where the march of history does not unambiguously point in one direction; it is not obvious, for example, that moral theorizing necessarily gets better over time. But perhaps there are enough domains where progress seems to prevail over regress to warrant at least an initial *presumption* in favor of approximating paths to knowledge as continuously upward-sloping. Yes, there will be occasions when such a presumption is not warranted, but then one would expect to see some affirmative evidence suggesting that *X* is a circumstance in which a continuously upward-sloping assumption should be seriously questioned. Perhaps it is incumbent on the person claiming the existence of a second best problem in a particular circumstance to meet a burden of production suggesting that one is on a potentially downward-sloping path to knowledge. Burdens of production are designed to place the force of inertia on one or another side of a controversy. In circumstances where knowledge is hard to come by, the placement of the burden of production may well be decisive. Placing the burden of production on someone raising a second best concern would remove that concern from consideration in any case in which all that can be mustered is a vague assertion of ifs, mights, and maybes. In this respect, the case against taking second best epistemological problems too seriously tracks the case against broad-based epistemological skepticism: The real question is not whether theoretical objections to knowledge claims can be imagined, but whether doubts are rationally warranted in specific cognitive contexts.⁵⁴

On the other hand, this line of reasoning as applied to law may confuse principles of general epistemology with principles of adjudication. As a general epistemological matter, there is something to be said for the idea that, over the long haul, more information is likely to lead to more accurate decisions than will less information. That conclusion does not mean that one should always pursue more information; such a judgment cannot be made intelligently in any specific instance without taking full consideration of the

54. For my general assault against broad-based epistemological skepticism, see LAWSON, *supra* note 12, at 30–35. If second best concerns turn out simply to re-create age-old skeptical arguments, I will disavow this Essay as misguided. But I don't think that second best concerns are just skepticism in another guise. Second best theory, as described in this Essay, tells one to think carefully about the epistemological bases for truth claims. It does not say that no such bases can be found, especially once one understands that knowledge is contextual and that the fundamental error of Cartesian-like skepticism is applying an unrealistic standard of proof to truth claims. See *id.* at 33–34 (explaining that the core of Cartesian skepticism is the argument over at which threshold something has been proven).

cost factor that I have conveniently omitted from this Essay. But it does suggest that truth-finding will, on average and all else being equal, tend to benefit from more information rather than less.

Adjudication, however, is not about long hauls, averages, or general epistemology—or even about truth-finding. It is about resolving specific disputes. It is about how official force will be deployed to kill people, put them in prison, or take property in someone's possession and place it somewhere else. There is no serious pretense that those decisions about the deployment of official force are based on epistemologically sound judgments about objective reality. Adjudicative procedures—including most notably evidentiary procedures—are driven by a confluence of forces, including considerations of cost, privacy, and personal relationships, of which accurate decision-making is only one. Formal privileges, which exclude from consideration concededly relevant evidence, are only the most obvious examples of trading off truth for other values. Considerations of cost limit the extent to which any legal proceeding can develop as full an evidence set as is metaphysically possible. A legal system committed single-mindedly to finding out what really happened is a fantasy—and not necessarily an attractive one, given the potential resource costs of finding out what really happened in each litigated case.

Such considerations can cut both directions as far as second best problems are concerned. On the one hand, they suggest that second best concerns need to be taken more seriously in legal proceedings than in general epistemology because of the individualized, one-off nature of most legal disputes. On the other hand, if law is not really about truth finding, then second best epistemological issues regarding truth finding may not be all that significant. On the other, other hand, second best problems do not pertain solely to truth finding. They affect the optimization process for any value whatsoever.

Thus, a full account of the consequences of second best theory for law must integrate second best concerns with a theory of epistemological burdens of production, the economics of information, and a broad-based Grand Theory of adjudication. That is all well above my pay grade, so at that point I stop.⁵⁵

A second, related response links second best concerns to broader themes in epistemology that require relaxing the assumptions made thus far about zero-cost acquisition and processing of information. As much as welfare economics posits general equilibrium as an ideal state, second best theory posits the perfectly complete evidence set as the ideal state and then evaluates

55. *See supra* Introduction (“My goal throughout this Essay is to raise questions and provoke thought, not to provide answers to what might well be intractable problems.”).

real-world knowledge claims by reference to that ideal. Maybe that is a big mistake.

An omniscient being would not need epistemology. You only need epistemology if you need some mechanism for sorting out claims to knowledge in circumstances where fallibility is a serious concern. An epistemology that takes omniscience as its standard or ideal makes no sense; it disregards the reason for theorizing about knowledge in the first place. In the real world, with real humans, all knowledge claims are put forward in a given context, which includes (a) a given evidence set, and (b) a possible evidence set that can plausibly be acquired given constraints on resources and cognition. An evidence set that you cannot realistically acquire is not “perfect”—just as a hammer (such as Mjolnir⁵⁶) that you can dream about, but cannot actually possess, is not the “perfect” hammer for nailing a picture to a wall. The “perfect” hammer for nailing a picture to a wall is the best hammer for that task that you can actually acquire at the best cost. Similarly, the “perfect” evidence set in any given context is simply the evidence set that you can realistically acquire that is most likely to lead to the best decision at the best price. That evidence set is necessarily going to be “incomplete” by the standard of omniscience, but that standard is intellectually uninteresting.

The upshot of this response is not to dismiss or deny second best concerns, but rather to doubt their significance for real-world affairs. Real-world decisions always take place within limited cognitive contexts, and the problems posed by second best are one among a whole set of limitations. One simply must muddle through as best one can, and criticizing such muddling through from an unrealistic perspective is unproductive. Perhaps that is all that one can say, and perhaps it is enough.

The point of this Essay is to pose these problems, not to resolve them—and hopefully to get people (maybe even experts?) to think about them carefully. So—what do you think about all of this?

* * *

It may be difficult for people who inhabit the world of higher education to consider the possibility that their wider scope of knowledge might sometimes—not always, but sometimes—put them in a worse position to make decisions than those who know less. But that is what second best theory says, and dismissing second best theory as a party-pooper does not make it any less true.

56. *Mjolnir*, MARVEL DATABASE, FANDOM, <https://marvel.fandom.com/wiki/Mjolnir> [<https://perma.cc/AU2W-VR6W>].