SEARCHING FOR TRUTH IN THE AMERICAN LAW OF EVIDENCE AND PROOF

D. Michael Risinger[*]

TABLE OF CONTENTS

[*] John J. Gibbons Professor of Law, Seton Hall University School of Law. My thanks as usual to Lesley C. Risinger for all of her indispensable aid, editorial and otherwise.

I. TRUTH

When I was originally invited to participate in this Symposium, I was assigned to a panel that was to consider the vagaries of expert evidence. As a result of some logistical problems that arose for the organizers, I was asked to switch topics, and as a result I was given something easier: Truth.

I am being facetious, of course. There is nothing easy about the nature of truth in general, nor about the tense relationship between truth and the trial process (and evidence law). The ideology of the trial process puts discovery of truth at center stage. At least that is so if we are to believe the statement of purposes found in the original (unrestyled) Federal Rule of Evidence 102, upon which New Georgia Rule of Evidence 24-1-1 is obviously based[1]: "These rules shall be construed to secure fairness in administration, elimination of unjustifiable expense and delay, and promotion of growth and development of the law of evidence to the end that the truth may be ascertained and proceedings justly determined."[2] The new Georgia rule is similar, but it repeats its dedication to the truth twice: "The object of all legal investigation

---

[1] *See* FED. R. EVID. 102 (2009); O.C.G.A. § 24-1-1 (2013). Because of the similarity in expression of the new Georgia rule and original federal rule (changing only "secure . . . elimination of" to "eliminate" and "secure . . . promotion of" to "promote") I have chosen to ignore the restyled language of Federal Rule 102. For example, the restyled expression "evidence law" does not imply an interconnected area of doctrine where one is obliged to take into account the effect of any given construction on the other parts of the whole as well as the phrase "the law of evidence" does (or did). This is perhaps the unintended consequence of trying to express everything in language that eliminates all constructions but the simple declarative and tries to simplify everything to the level of an intelligent eighth grader. Many connotations and colors are lost, some of which were valuable. In my opinion. Hrummph.

At any rate, we are assured that no change of substance is to be attributed to the restyling. As the note to restyled Rule 102 says,

> [t]he language of Rule 102 has been amended as part of the restyling of the Evidence Rules to make them more easily understood and to make style and terminology consistent throughout the rules. These changes are intended to be stylistic only. There is no intent to change any result in any ruling on evidence admissibility.

FED. R. EVID. 102 advisory committee's note (2011). Assuming that this goal was accomplished, the original language is still a proper analytic choice.

[2] FED. R. EVID. 102 (2009).

is the discovery of truth. Rules of evidence shall be construed to secure fairness in administration, eliminate unjustifiable expense and delay, and promote the growth and development of the law of evidence, to the end that the truth may be ascertained and proceedings justly determined."[3]

It is tempting to regard these sentences as merely a collection of platitudes. But I think that they actually say a lot (not all of it coherent, perhaps) about the attitude of the original federal drafters who generated this language and, by extension, about the dominant attitude to be attributed to the law itself, regarding the concept of truth. The first important point to note is the means–end relationship that is set out here. The ends are truth and justice; "fairness in administration," "elimination of unjustifiable expense and delay" and "promot[ion of] the development of the law of evidence" are only means to those ends, and not ends in themselves, at least so far as the rule itself describes them.[4]

So truth and justice are the official ends of the trial system, from first investigation to last post-trial proceeding. But this does little to clarify the intended concept of truth (or justice either, for that matter[5]). It is common knowledge beyond the necessity of citation that the word "truth" has many different meanings in different contexts and among different communities. "Scientific truth," "factual truth," "human truth," "moral truth," and "analytic truth" spring quickly to mind, and many others may occur to the reader.[6] So in order to make progress, we must begin at the beginning, asking ourselves what things the drafters might have

---

[3] O.C.G.A. § 24-1-1 (2013).

[4] *Id.*

[5] At least I was not assigned "justice," the other half of the two official goals of the proof system as stated in FED. R. EVID. 102. What is meant by justice in Rule 102 is even less clear than what is meant by truth.

[6] For instance, "Beauty is truth, truth beauty—that is all/Ye know on earth, and all ye need to know." John Keats, *Ode on a Grecian Urn* (1820). For the purposes of the law, however, you actually need to know a good deal more.

For a collection of some of these variant approaches to truth through the ages, see CHARLES ALAN WRIGHT AND KENNETH W. GRAHAM, JR., 21 FEDERAL PRACTICE AND PROCEDURE: EVIDENCE § 5021 (2d ed. 2005) [hereinafter WRIGHT & GRAHAM (2d ed. 2005)]. For a readable tour of some of the philosophical problems of the concept of truth in its many garbs, see SIMON BLACKBURN, TRUTH: A GUIDE (2005).

reasonably had in mind when they used the term *truth*, to the extent they had any particular thing in mind at all.

I suppose this smacks of the current (and perhaps inevitably always current) debates regarding statutory and constitutional construction generally. I do not intend to get bogged down in those debates.[7] It seems obvious that the first stop for interpretation should be the official Advisory Committee Note to the rule as originally promulgated. However, it is less than enlightening on the intended meaning. Here is what the note says, in its entirety: "For similar provisions see Rule 2 of the Federal Rules of Criminal Procedure, Rule 1 of the Federal Rules of Civil Procedure, California Evidence Code, § 2, and New Jersey Evidence Rule 5."[8]

However, three of the cited sources do not have the means–ends structure of Rule 102, and none of those sources has the distinctive means–end relationship with truth and justice as the ends (although the then New Jersey Evidence Rule 5 did have a means–end structure, with truth being the only end given[9]).

It seems for our purposes that it is at least not inappropriate to look to the normal sources of drafting and legislative history for

---

[7] It's apparently even more complicated than that, because in the view of some commentators, how a judge (and, by extension, any lawyer) is obliged to approach construction of the federal rules depends on whether they are viewed as statutes in the fullest sense of the word, and further whether they are viewed as codifications of the common law of evidence on the one hand, or a more thoroughgoing kind of codification on the other. *See, e.g.*, Glen Weissenberger, *Evidence Myopia: The Failure To See the Federal Rules of Evidence as a Codification of the Common Law*, 40 WM. & MARY L. REV. 1539, 1545 (1999) (challenging "the Rules-as-statute premise on historical and policy bases"); Edward J. Imwinkelried, *Whether the Federal Rules of Evidence Should Be Conceived as a Perpetual Index Code: Blindness Is Worse Than Myopia*, 40 WM. & MARY L. REV. 1595, 1597–98 (1999) (questioning whether the Federal Rules of Evidence should be conceived of as a perpetual index code that "compiles the common law exclusionary rules but allows the federal appellate courts" to expand upon this list); Glen Weissenberger, *Reply: The Elusive Identity of the Federal Rules of Evidence*, 40 WM. & MARY L. REV. 1613, 1613 (1999) (responding to Professor Imwinkelried's critique). Luckily, for my purposes, I think I can simply bypass these issues.

[8] FED. R. EVID. 102 advisory committee's note (2011).

[9] RICHARD J. BIUNNO, NEW JERSEY RULES OF EVIDENCE, 1991 EDITION 125 (1991): "Rule 5. Relation of These Rules to Law of Evidence—The adoption of these rules shall not bar the growth and development of the law of evidence in accord with fundamental principles to the end that the truth may be fairly ascertained." The New Jersey Rules of Evidence were overhauled to adopt a set of rules modeled on the federal rules in 1992. *See* NEW JERSEY RULES OF EVIDENCE, 2011 EDITION, at viii–x (RICHARD J. BIUNNO, HARVEY WEISSBARD & ALAN ZEGAS eds., 2011) (giving history).

clues of legislative intent. This might prove a daunting task if it had not already been done for us in a pretty thorough fashion by the authors of various treatises on the Federal Rules of Evidence. The results are best summed up by the following statements: "The rule first appeared in its [promulgated] form in the Preliminary Draft, and was never altered by the Advisory Committee, the Court, or Congress."[10] "Neither the Report of the House Judiciary Committee, nor the Report of the Senate Judiciary Committee, nor the Report of the House/Senate Conferees made comments directed separately toward Rule 102."[11]

This does not mean that nothing in the congressional record touched on Rule 102. The topic of the scope of the judicial discretion suggested by Rule 102 came up during the hearings on the proposed rules before two subcommittees of the House Committee on the Judiciary and before the Senate Committee on the Judiciary as well as in passing in Committee reports.[12] However, the intended meaning of truth (and justice) was not addressed. The meanings of these terms were taken as obvious, or, at any rate, they went without saying.

Very few commentators, so far as I have been able to discover, have addressed the question at any length.[13] So where does that

---

[10] CHARLES ALAN WRIGHT AND KENNETH W. GRAHAM, JR., 21 FEDERAL PRACTICE AND PROCEDURE: EVIDENCE § 5021 (1977) [hereinafter WRIGHT & GRAHAM (1st ed. 1977)]. The language is substantially the same (although the word order is changed) in WRIGHT & GRAHAM (2d ed. 2005), *supra* note 6. The word "promulgated" is inserted in the bracket in the text to replace the word "present," which is no longer true thanks to restyling.

[11] 1 DAVID W. LOUISELL & CHRISTOPHER B. MUELLER, FEDERAL EVIDENCE 5 (1977). The quoted text appears within brackets immediately after the Advisory Committee's Note. It does not appear to have made it into the successor edition of the work, 1 CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, FEDERAL EVIDENCE 3–9 (2d ed. 1994).

[12] WRIGHT & GRAHAM (1st ed. 1977), *supra* note 10, at 143–45.

[13] About the only exception to this is Professor Kenneth Graham's treatment in WRIGHT & GRAHAM (1st ed. 1977), *supra* note 10, § 5026, and in the significantly expanded version of § 5026 in WRIGHT & GRAHAM (2d ed. 2005), *supra* note 6 (which also takes on justice at some length). I attribute this to Professor Graham since I understand him to have been the principal draftsman of the evidence sections of FEDERAL PRACTICE AND PROCEDURE under the very light rein of Professor Wright. As always, Professor Graham's observations regarding Rule 102 are detailed, creative, and acerbic. They are definitely worth reading—entertaining even. But he has lost none of his youthful anarchy, and he is still devoted to the promotion of a "holistic" approach, *id.* at 515, which I, apparently being left-brained (in his terms), do not easily embrace, or even understand. At any rate, this is an old theme.

leave us? What about common legal usage in the context of trials? I think that we actually can derive good guidance on the general nature of what "went without saying" from a modified form of the original public meaning approach. It is modified in that the "public" group referred to is the legal culture in the decades immediately preceding the drafting of the Federal Rules of Evidence and the main commentators who had shaped the then-current central understanding of the kind of truth that the litigation system was supposed to determine.

We do not have to look far to discover either the standard framework that was virtually universal among that group (and indeed, remains so today) or to derive the meaning of truth implied by it. Once again, the work has been done for us. Certain foundational assumptions form what might profitably be called the standard "rationalist" model of litigation, from the time of Jeremy Bentham on, and have been catalogued by William Twining:

> 1. Knowledge about particular past events is possible.
>
> 2. Establishing the truth about particular past events in issue in a case (the facts in issue) is a necessary condition for achieving justice in adjudication; incorrect results are one form of injustice.
>
> 3. The notions of evidence and proof in adjudication are concerned with rational methods of determining questions of fact; in this context operative distinctions have to be maintained between questions of fact and questions of law, questions of fact and questions of value and questions of fact and questions of opinion.

See, e.g., D. Michael Risinger, *John Henry Wigmore, Johnny Lynn Old Chief, and "Legitimate Moral Force": Keeping the Courtroom Safe for "Heartstrings and Gore,"* 49 HASTINGS L.J. 403, 456 n.134 (1998) (commenting on Professor Graham's notion of "psychological relevance").

4. The establishment of the truth of alleged facts in adjudication is typically a matter of probabilities, falling short of absolute certainty.

5. (a) Judgments about the probabilities of allegations about particular past events can and should be reached by reasoning from relevant evidence presented to the decisionmaker; (b) The characteristic mode of reasoning appropriate to reasoning about probabilities is induction.

6. Judgments about probabilities have, generally speaking, to be based on the available stock of knowledge about the common course of events; this is largely a matter of common sense supplemented by specialized scientific or expert knowledge when it is available.

7. The pursuit of truth (i.e., seeking to maximize the accuracy in fact-determination) is to be given a high, but not necessarily overriding, priority in relation to other values, such as the security of the state, the protection of family relationships or the curbing of coercive methods of interrogation.

8. One crucial basis for evaluating "fact-finding" institutions, rules, procedures and techniques is how far they are estimated to maximize accuracy in fact-determination—but other criteria such as speed, cheapness, procedural fairness, humaneness, public confidence and the avoidance of vexation for participants are also to be taken into account.

9. The primary role of applied forensic psychology and forensic science is to provide guidance about the

> reliability of different kinds of evidence and to develop methods and devices for increasing such reliability.[14]

I have written on Twining's standard "rationalist" model at some length in another place.[15] In general I believe (with some qualifications and additions[16]) that it is descriptively correct; that is, it captures the main conscious or implicit assumptions of the vast majority of American lawyers about the litigation and proof process, both in the run-up to the Federal Rules of Evidence and now. I also believe, more or less as a corollary, that "[e]stablishing the truth about particular past events in issue in a case (the facts in issue)" (Twining's number 2) was taken by all concerned in the promulgation of Rule 102 to be the truth referred to by Rule 102 and was taken to constitute "a necessary condition for achieving justice in adjudication."

I have been at some pains to sample the applicable literature mentioning truth as a value in adjudication in the period from 1930 to the promulgation of the rules. Yet I have found virtually nothing that does not assume the standard rationalist model. Even the radicals of the period, the legal realists who looked at adjudication, accepted this approach to truth.

Take, for example, Jerome Frank, one of the most influential people in framing the discussion about the truth sought in litigation during the drafting and promulgation period. Frank's major contribution was his writings (and the writings of others) about his notion of "fact skepticism" (which derived from his extremely successful 1949 book, *Courts on Trial*[17]). Frank was hardly an apologist for the prevailing formalist accounts of the phenomenon of law. In fact, he was seen as a leading radical in the legal realist school, primarily as a result of his 1930 book *Law and the Modern Mind* and his other writings. However, in *Courts on Trial* Frank somewhat revised his earlier embrace of Holmes's

---

[14] WILLIAM TWINING, RETHINKING EVIDENCE: EXPLORATORY ESSAYS 76 (2d ed. 2006).

[15] D. Michael Risinger, *Unsafe Verdicts: The Need for Reformed Standards for the Trial and Review of Factual Innocence Claims*, 41 HOUS. L. REV. 1281, 1283–90 (2004).

[16] Mainly these involve accounts of adversarialism and of the role of the jury. *Id.* at 1287–90.

[17] JEROME FRANK, COURTS ON TRIAL: MYTH AND REALITY IN AMERICAN JUSTICE (1949).

"prediction" theory of the meaning of law (sometimes called the "bad man" theory).[18] "Fact skepticism" was considered by Frank, and by many others in the subsequent two decades, to be a very important insight because it was taken to undermine Holmes's prediction theory, which had been central to the realist understanding of the phenomenon of law (including Frank's own) until Frank put forth his theory of fact skepticism. In a nutshell, Frank asserted that the results of contested trials were fundamentally unpredictable, not mainly from the inability to predict what legal principles judges would apply to resolve a given set of facts, but from the inability to predict a factfinder's response to the kind of evidence available at trial.[19] That being the case,

---

[18] For his earlier embrace, see, for example, Jerome Frank, *Mr. Justice Holmes and Non-Euclidean Legal Thinking*, 17 CORNELL L.Q. 568, 569–71 (1932). The following passage from that article, both extolling Holmes and quoting him, shows both the theory and Frank's fandom:

> In the latter part of the nineteenth century in America, Oliver Wendell Holmes, Jr., a keen-minded idealistic lawyer, disgusted with the muddle-headed character of customary ways of dealing with the judicial process, and doubtless with the "wicked" Machiavelli in mind, spoke these words:
>
> "*If you want to know the law and nothing else, you must look at it as a bad man*, who cares only for the material consequences which such knowledge enables him to predict, not as a good one, who finds his reasons for conduct, whether inside the law or outside of it, in the vaguer sanctions of conscience. . . . Take the fundamental question, what constitutes the law? You will find some text writers telling you that it is something different from what is decided by the courts of Massachusetts or England, that it is a system of reason, that it is a deduction from principles of ethics or admitted axioms or what not, which *may or may not coincide with the decisions*. But if we take the view of our friend the bad man we shall find that he does not care two straws for the axioms or deductions, but that he does want to know what the Massachusetts or English courts are likely to do in fact. I am much of his mind. *The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law*. . . .

Id. at 569–70 (alterations in original) (footnote omitted) (quoting Oliver Wendell Holmes, *The Path of Law*, 10 HARV. L. REV. 457, 459–61 (1897)).

[19] Frank gives his main exposition of this position in Chapter III of COURTS ON TRIAL entitled "Facts Are Guesses." *See* FRANK, *supra* note 17, at 14–36. He also later coined the term "fact skeptics" as a label for those who understand the centrality of the fact-finding process to indeterminacy of prediction, as opposed to those who concentrate on the indeterminacy of rules (whom he labels "rule skeptics"). *Id.* at 73–75. In COURTS ON TRIAL, Frank is rather unspecific about the implications of such "fact skepticism" for Holmes's prediction theory, but makes it explicit later in Jerome Frank, *A Conflict With Oblivion: Some Observations on the Founders of Legal Pragmatism*, 9 RUTGERS L. REV. 425, 448–49 (1955).

any attempt to give specific content to a theory of law, understood as the prediction of what courts would do in the individual case, was doomed to conclude that the real law was simply indeterminate.

It is hard to overestimate Frank's influence among thinkers writing on law and the trial in the 1950s and 1960s.[20] Frank's views were seen as a corrective to a perceived too-facile faith in the reliability of the trial process (or any human process) to "discover truth" about the material facts that gave rise to the legal controversy.[21] What is important for our purposes, however, is not whether Frank's claims about the radical unpredictability of trial results were right or wrong, or whether, if right, that made the prediction theory of law wrong, or just depressing. For our purposes, what is important is what Frank (and by implication, those following him) actually accepted as the proper target of a search for truth at trial, and what Frank actually accepted as the practical possibilities of such a search under reformed procedures.[22]

It is here where one must realize that the label "fact skepticism" is profoundly misleading. Frank was not skeptical of most of the fundamental assumptions concerning "facts," and "truth" in regard to facts, that had undergirded both the framework of analytic jurisprudence and the common account of these things by lawyers for decades, as described by Twining.

---

[20] *See generally* Edmond Cahn, *Jerome Frank's Fact-Skepticism and Our Future*, 66 YALE L.J. 824, 824 (1957) ("I believe that Jerome Frank's fact-skepticism represents an epoch-making contribution not only to legal theory procedural reform, but also to the understanding of the entire human condition."); Roger J. Traynor, *Fact Skepticism and the Judicial Process*, 106 U. PA. L. REV. 635 (1958) (same); Fleming James, Jr., *Sufficiency of the Evidence and Jury-Control Devices Available Before Verdict*, 47 VA. L. REV. 218 (1961) (same). The term "fact skepticism" appears in 130 different works in the Hein Online Law Journal Library from 1948 to 1970.

[21] *See* Cahn, *supra* note 20, at 828 (prescribing the embrace of Frank's fact-skepticism as a corrective for such "self-delusion").

[22] In COURTS ON TRIAL, Frank followed up his observations on "facts as guesses" and "fact skepticism" with a chapter entitled "The 'Fight' Theory Versus the 'Truth' Theory." FRANK, *supra* note 17, at 80–102 (arguing in favor of adopting the "truth" theory of trials, which he believed would maximize the factual accuracy of conclusions).

So far as I can tell, there is really nothing on Twining's list (bearing on the nature of the "truth" sought in adjudication) that would have seriously troubled Frank. Frank's main claim seems to have been that the probabilistic nature of knowledge about facts (number 4 above) had been underappreciated, and that factual certainty resulting from the evidence adduced at trial had been taken to be highly likely. As a result, such likely certainty of conclusions from evidence had been overvalued, and the high likelihood of uncertainty underestimated and not properly taken into account. Indeed, what Frank actually did was *embrace* the rationalist model and help to popularize it in its new probabilistic garb. (Although his position on the fundamentally probabilistic nature of facts really wasn't very new—there had been plenty of predecessors, as Twining documents. It was the application of the probabilistic model to undermine the prediction theory of law so central to the ideas of many legal realists that was new.)

I think we can conclude from all of this that there was a general, if unspoken, agreement on the notion of truth invoked in Rule 102. The shared assumptions of the standard rationalist model allowed (and continue to allow) both practitioners and the vast majority of descriptive academics to skip over many issues that might interest professional philosophers, entering the discourse concerning truth at a point where thorny epistemological issues have been resolved by assumption, since such controversies are unimportant to the law as a practical discipline. As a practical matter, we assume the reality of an exterior material world; arguing either radical skepticism or the primacy of some form of philosophical idealism will not cut any ice in a courtroom. In addition, we assume that knowledge (or something counting as knowledge) about past events is possible, even if it is not perfect. Platonic arguments about how perfection is necessary to the concept of true knowledge are beside the point. We assume that at least part of this knowledge will meet certain criteria of correspondence to the actual state of the exterior world. Objections that correspondence theories inevitably imply "naïve realism," and are therefore to be shunned, won't get very far in the legal context (although an important reason they won't is that not

all correspondence theories are naïve, and many can both comfortably and practically accommodate other notions of epistemic strength, such as coherence).[23] We assume that the path to the factual truth we desire is through information (evidence) processed in a rational manner (although what we mean by "rationality" is sometimes difficult to say and, assuming we can come up with a defensible notion of rationality, our particular arrangements may not always bear scrutiny when put to that test). The vision of rationality here, whatever else it may be, implies a method of inquiry about a factual question founded on two central pillars: the primacy of evidence publicly available to the senses and the strength of critical common sense. In this way, the rationality assumed by the law is empirical, and its method of inquiry is one that, in principle, is available to everyone of normal intelligence.

The issues about which the law seeks truth in any given litigated controversy are the ones that constitute (or correspond to) the material issues under the applicable substantive law. Some are easily dealt with by a correspondence notion, but others are not. More importantly, some issues are not, in the end, facts at all but rather particularized value judgments (even though legal tradition calls them all "facts" since their determination is delegated to juries). So if the truth the law seeks is at least factual truth, there are still plenty of remaining mysteries, especially given the way the law seeks truth. I will try to list the main ones I see and to discuss a few in this paper in greater detail. I have addressed some of them before and intend to try to coherently address all of them together at some time in the future. This is obviously a book-length project, so you won't find it here. However, I believe it is feckless to argue about the truth that

---

[23] Susan Haack's "Foundherentism," for instance. *See generally* SUSAN HAACK, EVIDENCE AND INQUIRY 117–89 (expanded 2d ed. 2009) (describing the theory of "Foundherentism" by contrast to the rival epistemological theories of Coherentism and Foundationalism). She says this of Foundherentism: "The account I offer makes perception of things and events around one, not of sense-data, colour patches, or whatever. But at the same time, it allows for the pervasive interpenetration of background beliefs into our beliefs about what we see, hear, etc." *Id*. at 158. I would describe Professor Haack's approach as an "asymptotic correspondence" theory, although she might not agree with this characterization.

people claim to seek in litigation in terms that contradict the general proposition set out above, or at least without acknowledging them as a starting point. No Zen koans.[24]

Here are some of the central questions this view of truth as the object of litigation raises, for me at least. Some are easier to answer in arguably satisfactory ways than others:

1. What is rationality?[25] Can defensible notions of rationality be squared with the empiricism implied by the standard model? Can defensible notions of rationality be squared with the notion of critical common sense and its attendant implication that participation in rational factfinding about legal issues is possible for most humans of normal intelligence?

2. What is this critical common sense that I have raised as an implied part of the standard model?[26]

---

[24] This is, of course, a reference to, among others, Kenneth Graham's "holistic" "right-brained" approach to truth, which he promotes through his concept of "psychological relevance." Graham defines it as "relevance based upon intuition and other forms of intelligence centered in the right lobe of the brain, as distinguished from the highly verbalized forms of logic that are employed by the left lobe," and he is generally in favor of it, though "it cannot be explained to the satisfaction of those who reject intuition as a source of knowledge." *See* 22 WRIGHT & GRAHAM (1st ed. 1977), *supra* note 10, § 5165, at 62–63. (It is perhaps only fair to note that Professor Graham's embrace of this concept appears to be significantly toned down in the 2005 second edition.)

However, the exclusion of such a mystical approach to truth referred to in the text does not result in simplicity. Many of the elements subject to fact-finder determination that the law treats as "facts" do not meet the criteria of the prototypical fact in most people's minds, the specific and binary past fact in the physical world such as whether the defendant pulled the trigger of the gun that killed the victim in a murder case. A preliminary exploration of the range of facticity represented by the law's "facts" is set out in Part II *infra*, FACTS, FACTICITY, AND FACTS OF ANOTHER COLOR.

[25] For a run at describing rationality desiderata under human processing constraints (bounded rationality), see generally D. Michael Risinger & Michael J. Saks, *Rationality, Research and Leviathan: Law Enforcement-Sponsored Research and the Criminal Process*, 2003 MICH. ST. L. REV. 1023, 1023–36 (2003). *See also* Ronald J. Allen, *Common Sense, Rationality, and the Legal Process*, 22 CARDOZO L. REV. 1417, 1426–27 (2001).

[26] C.S. Peirce is the originator of the term "critical common-sensism." Christopher Hookway, *Critical Common-Sensism and Skepticism*, 24 NOUS 397, 399 (1990). A good set of references appears in Barry Smith, *Formal Ontology, Common Sense and Cognitive Science*, 43 INT'L J. HUM.-COMPUTER STUD. 641, 665–67 (1995). *See generally* LYND FORGUSON, COMMON SENSE (1989) (investigating the philosophy and psychology of our common sense beliefs); SUSAN HAACK, DEFENDING SCIENCE—WITHIN REASON: BETWEEN SCIENTISM AND CYNICISM 93–121 (2003) (chapter entitled "The Long Arm of Common Sense"). I adopt critical common sense as central to the law's rationality in D. Michael

3. Are the "facts" that the substantive law claims to care about in litigation all of one general kind, or does an appropriate regard for the kind of inquiry implied by critical common sense empiricism require a taxonomy of the kinds of issues the law treats as "facts?" Do instinctive "correspondence" notions for some of these kinds of "facts" make less sense than for others?

4. How is information relevant to the rational reconstruction of the kinds of facts the law specifies as objects of inquiry? How can we properly judge the relevance of proffered information to another nonobvious factual proposition that is not fully entailed by the proffer? Must a proper view of "relevance" in the law, and elsewhere, explicitly take into account the capacity of the processor to process the implications of the proffered information?[27] Can weight really be completely partitioned off from relevance as a conceptually separate question, as the law traditionally does? And when the processors are humans, how does the "story model" fit into a vision of rationality?[28] Does the idea of "inference to the

---

Risinger, *Inquiry, Relevance, Rules of Exclusion, and Evidentiary Reform*, 75 BROOK. L. REV 1349, 1361–63 (2010).

[27] *See generally* Risinger, *supra* note 26, at 1353–58, where I develop what I have called the "processor" theory of relevance, which holds that any sensible criterion about whether a piece of information ought to be deemed relevant to any given target issue must take into account not only the information and the target but also the characteristics of the processor that will process (evaluate) the information—which, in the case of the trial, would be the human factfinder. The processor model is in tension with the standard model implied by such formulations as FED. R. EVID. 401, which take into account explicitly only the asserted relationship between the information and the target in a sort of implied cosmic or "god" view. The processor model of relevance is a special application of the notion of "naturalized" epistemology. For a good exposition of the general notion of "naturalized epistemology" see Ronald J. Allen & Brian Leiter, *Naturalized Epistemology and the Law of Evidence*, 87 VA. L. REV. 1491 (2001) and ALVIN I. GOLDMAN, EPISTEMOLOGY AND COGNITION (1986).

[28] The "story model" is a model of human cognition and inference that suggests that most ordinary humans process the inferential meaning of ordinary circumstantial information best when it is cast into story form and that the generation of such plausible stories is central to both accurate human inference and persuasion. It may be seen as an extension of schema theory in psychology, but in the legal setting it is based on the work of Nancy Pennington and Reid Hastie. The wellspring works are Nancy Pennington & Reid Hastie, *Evidence Evaluation in Complex Decision Making*, 51 J. PERSONALITY & SOC. PSYCHOL. 242 (1986), and Nancy Pennington & Reid Hastie, *The Story Model of Juror Decision Making*, in INSIDE THE JUROR: THE PSYCHOLOGY OF JUROR DECISION MAKING 192 (Reid Hastie ed., 1993). Professor Allen was an early adopter. *See, e.g.*, Ronald J. Allen, *The Nature of Juridical Proof*, 13 CARDOZO L. REV. 373, 410 (1991) (discussing the story model). Professor

best explanation" help to explain what we are talking about?[29] Is it implied by our penchant for story model organization and processing regarding human events and controversies involving humans?

5. The standard model's answer to many of these questions has something to do with notions of "probability." Does this inevitably imply mathematizability?[30] If so, in what sense?[31] Even if the answer is yes, does mathematizability inevitably benefit rationally from expression in the foreign language of formal systems (foreign to most citizens and judges, at any rate)?[32]

Allen and Professor Michael Pardo have combined the story model with their version of inference to the best explanation into a model of the nature of the trial and juridical proof. *See* Ronald J. Allen & Michael S. Pardo, *The Problematic Value of Mathematical Models of Evidence*, 36 J. LEGAL STUD. 107 (2007).

[29] "Inference to the best explanation" is a concept denoting an approach to hypothesizing the best explanation to account for a complex of known facts not directly related in any facially obvious way. It is related to C.S. Peirce's concept of "abduction." *See* 5 CHARLES SANDERS PEIRCE, COLLECTED PAPERS OF CHARLES SANDERS PEIRCE: PRAGMATISM AND PRAGMATICISM, para. 171, at 106 (Charles Hartshorne & Paul Weiss eds., Harvard Univ. Press 3d ed. 1932) ("Abduction is the process of forming an explanatory hypothesis."). It was originally put forth by the philosopher of science Gilbert Harmon in a 1965 article. Gilbert Harmon, *The Inference to the Best Explanation*, 74 PHIL. REV. 88, 88 (1965). As indicated in the preceding note, Professors Allen and Pardo have combined this notion, or their version of it, with the story model into a theory of the trial and juridical proof. Professor Laudan has criticized this use of inference to the best explanation in Larry Laudan, *Strange Bedfellows: Inference to the Best Explanation and the Criminal Standard of Proof*, 11 INT'L J. EVID. & PROOF 292, 293 (2007).

[30] For an excellent review of the problems facing formalized modeling of human inference, see James Franklin, *Discussion Paper: How Much of Commonsense and Legal Reasoning Is Formalizable? A Review of Conceptual Obstacles*, 11 LAW PROBABILITY & RISK 225 (2012). *See also* Allen & Pardo, *supra* note 28, at 114–16 (discussing limitations on mathematically modeling the value of legal evidence); D. Michael Risinger, *Against Symbolization*, 11 LAW, PROBABILITY & RISK 247, 248–53 (2012) (pointing out the potential for symbolization, in the absence of an underlying mathematizability, to become "an act of mystification with very little benefit and the potential for much mischief").

[31] Professors Peter Tillers and Jonathan Gottfried would answer the question concerning mathematizablity in the affirmative, but only by (quite properly) expanding the notion of mathematics beyond the everyday notion of explicitly precise numerical quantification and determinate formal description. *See* Peter Tillers & Jonathan Gottfried, *Case Comment—* United States v. Copeland*, 369 F. Supp. 2d 275 (E.D.N.Y. 2005): A Collateral Attack on the Legal Maxim That Proof Beyond a Reasonable Doubt is Unquantifiable?*, 5 LAW PROBABILITY & RISK 135, 141 (2006).

[32] *See* Risinger, *supra* note 30, at 253 (discussing the differences in distribution of aptitude for natural language and for formal systems).

6. Recognition of the inescapability of some notion of probability in any system of inquiry implies the inevitable risk of error, and other weaknesses of humans and human systems reinforce this inevitability. What is error?[33] If factual error is defined objectively as a failure of correspondence between output and stated goal, how do we determine it? How should we best deal with the question of "error" about the value judgments that are officially part of the determination of some ultimate issues under the proper substantive law in the individual case (as will be revealed by a proper taxonomy of the issues the law treats as "facts")?

7. Can error be reduced?[34] What methods can reduce factual errors? Are they at odds with methods to obtain what we want (or imply that we want) from factfinders regarding their authorized value judgments (their "normative warrants")? What are our obligations to reduce error where we can and at what cost? Do these obligations differ in different contexts, particularly regarding civil and criminal cases?

8. Do different kinds of facts suggest different processes for inquiry? What are the advantages and disadvantages of simplicity and trans-substantivity in our proof processes, as opposed to more context-specific approaches?[35] Of rules of exclusion versus free proof?[36] Where does the adversary system and the jury trial fit into this?[37] What are our formal rules for allocating the risk of the

---

[33] For an analysis of the concept of error from both a subjective (decision) and an objective (results) perspective, see D. Michael Risinger, *Whose Fault?*—Daubert, *the NAS Report, and the Notion of Error in Forensic Science*, 38 FORDHAM URB. L.J. 519 (2011).

[34] *See id.* at 533–34.

[35] For instance, I have taken the position that there should be specially focused pre-trial and trial procedures provided at the election of a criminal defendant who makes a claim of factual innocence conditioned on a partial waiver of the privilege against self-incrimination. Risinger, *supra* note 15, at 1311–16; *see generally* D. Michael Risinger & Lesley C. Risinger, *Innocence Is Different: Taking Innocence into Account in Reforming Criminal Procedure*, 56 N.Y. L. SCH. L. REV. 869 (2012).

[36] *See* Risinger, *supra* note 26, at 1351 (addressing "what a 'free proof' process of inquiry without any exclusionary rules whatsoever would look like").

[37] On the normative warrant of the jury generally, see Risinger, *supra* note 15, at 1290–1301. *See also* Mark P. Gergen, *The Jury's Role in Deciding Normative Issues in the American Common Law*, 68 FORDHAM L. J. 407 (1999) (discussing mainly civil issues in tort and contract law).

inevitable residue of error? How are they best conceived, and how are they best communicated to factfinders in order to "norm" them, individually and as a group, to apply the standards we intend? Does this depend on who we decide to employ as factfinders? Does formal mathematical expression using specific numbers have anything helpful to contribute to this process?[38]

I have actually written on a fair number of these issues elsewhere, as the footnotes indicate. In the rest of this paper, I will concentrate on only one—the development of a taxonomy of facticity,[39] that is, an analytic scheme for examining the varieties of issues that the law classifies as facts, and how each of those fares when compared to the most foundational notions of fact implied by the law's commitment to determining the truth of the facts of the case. I will also suggest at the end that different types of facts may require different types of evidence rules and different types of trial practices.[40]

---

[38] *See* Risinger, *supra* note 30; *see also* D. Michael Risinger, *Reservations About Likelihood Ratios (and Some Other Aspects of Forensic 'Bayesianism')*, 12 LAW, PROBABILITY & RISK 63 (2013).

[39] By facticity, I simply mean the degree to which an issue approaches the prototypical example of an empirically addressable fact in the world, as described *infra* Part II.A, BRUTE FACTS, PRIMARY TYPE. I do understand that the term has many other meanings in other philosophical contexts, most of which I am only vaguely aware of, and none of which I mean to adopt. *See* WIKIPEDIA, THE FREE ENCYCLOPEDIA, http://en.wikipedia.org/wiki/Facticity (last visited Feb. 12, 2013) (listing other meanings). I find facticity a useful label to underscore the non-binary nature of empirical issues and the problems of treating them all as if the same evidentiary approach used for ordinary facts were always the right one for all empirical issues. I was tempted to use "truthiness" but thought better of it.

[40] This builds on work I have previously undertaken in three previous articles, but never worked into a systematic taxonomy of the law's "facts." Those articles are D. Michael Risinger, *Preliminary Thoughts on a Functional Taxonomy of Expertise for the Post*-Kumho *World*, 31 SETON HALL L. REV. 508 (2000) [hereinafter Risinger, *Taxonomy*], Risinger, *supra* note 15; and Mark P. Denbeaux & D. Michael Risinger, Kumho Tire *and Expert Reliability: How the Question You Ask Gives the Answer You Get*, 34 SETON HALL L. REV. 15 (2003). I have borrowed freely from these works and from language I was satisfied with in those articles (with emendations and additions) in some of what follows. Rather than set these borrowings out in irritating block quotations, this footnote is the acknowledgement concerning my cadging previous writings.

II. FACTS, FACTICITY, AND FACTS OF ANOTHER COLOR

A. BRUTE FACTS, PRIMARY TYPE[41]

I often find it helpful when undertaking a taxonomic exercise to establish the clearest prototypical example first, and then work outward from there. The clearest such example of a "fact" would have the following characteristics: the proposition that both described it and asserted its existence in the exterior world would specify something that was (1) binary, (2) of human magnitude, (3) in the past or present, and (4) that was subject at least in principle to direct sensory observation by multiple humans.[42] I have elsewhere labeled such facts as "brute facts." Let us examine each of the four things on the list of defining specification a bit more closely.

First, the fact must be expressible as a binary proposition of existence[43] in an empirically satisfactory and virtually unmistakable way. A good example would be whether, in a criminal case involving a victim shot to death by a single shot behind the ear, a criminal defendant was or was not the shooter.[44]

---

[41] This is probably a good point to note the surprising recency of the modern notion of fact. In both law and general discourse, the term *fact* (Latin "factum") referred to actions of humans, not to other details of states of the world, past, present, or future. And in Western Europe, at any rate, there did not seem to be any specific concept that would correspond to modern notions of fact. The concept of fact did not begin to expand from the realm of human action and morph into the more general notion until the end of the sixteenth century. It may not be entirely coincidental that this corresponded to the promulgation of Bacon's empirical theories. For a complete account, see generally BARBARA J. SHAPIRO, A CULTURE OF FACT: ENGLAND 1550–1720 (2000).

[42] These are in my estimation the least controversial criteria for a proposition of fact that can come under investigation by common-sense empirical methods. The only one that may need some explication is the last. The requirement of at least the possibility of multiple observers is a well-established principle of scientific empiricism. "The communal model of science . . . restricts scientific information about the external world to those observations on which independent observers can agree." JOHN ZIMAN, RELIABLE KNOWLEDGE: AN EXPLANATION OF THE GROUNDS FOR BELIEF IN SCIENCE 42 (1977). But since I believe, along with Professor Haack and others, that "[i]nquiry in the sciences is continuous with other kinds of empirical inquiry," HAACK *supra* note 26, at 95, the general requirement seems inescapable.

[43] The normal image of "existence" brings to mind an object of some sort, but it also encompasses actions, relations, and qualities. I will not ring through the changes explicitly.

[44] I make no claims that there cannot be some penumbra or open texture to the question

Second, the fact must be "of human magnitude." By this I mean that it exists at a scale where observation is possible directly at the level of magnitude in space and time where humans exist. The question whether a particular person was the shooter in the example just given above would count. Whether microscopic forms of life exist, and any proposition about their function, would not.

Third, the fact proposed must be in the present or past. By specifying this, I mean to avoid for now the question whether there is any fundamental epistemic distinction between things that have already happened or are happening in a way that no intervention can change and predictions. Again, the shooter example qualifies.

Fourth, the fact proposed must have been subject, at least in principle, to direct sensory observation by multiple human observers. This is the foundational principle of empiricism in its most concrete form, though it too may end up needing modification in some contexts. But in its unmodified form, the shooter example continues to qualify.

The substantive law is often defined in terms of categories that map fairly comfortably onto brute facts. Also, I believe our notion of facticity is heavily influenced by this primary type of brute fact, and this is especially true in the law. Factual truth is thought of as correspondence of brute fact propositions to external reality. And it turns out that this narrowest approach to full facticity can be expanded in some dimensions without detracting much from the factual nature of the resulting kinds of propositions, although the model of appropriate inquiry may change some. Let us vary the criteria above in ways that may or may not affect our views of this quality of facticity. I will not vary them in the order they are set out above, which was chosen (successfully or not) for clarity of exposition; instead, I will make the variations in the order that appears to me to make the least variation in facticity.

In that spirit, let us first relax the second criterion, the requirement that the fact be of human magnitude. This entails

---

in some circumstances, but these must be relatively rare. This does not mean that the answer will be clear given whatever evidence there is, of course, but merely that the question admits of a clear binary answer assuming the contours of the human episode that gave rise to the controversy are established.

propositions that are incapable of direct, unaided sense perception; namely, propositions requiring either aids to perception or else propositions whose truth is well warranted by inferences from observation at the human level. Again, the existence of microbes is our easiest example. Immediately, this raises two questions; first, the relative value of instrumented observation, and second, the route of inference from observation. A moment's reflection will persuade most people, I think, that instrumented observation is far superior and produces a much stronger "belief warrant" in the truth of the proposition concerning microbes, than inference from unaided observations at human level. The entire history of the establishment of the reality of microbes illustrates this. Direct human-level observation resulted in many competing hypotheses concerning the cause of phenomena observed (such as decomposition), but only the invention of the microscope could begin the process of establishing that the agents of the observed effects were living organisms that exist below the level of direct observation.

I don't want to belabor this point. We have entered the realm of modern science, which depends heavily on instrumented observation. The results of such instrumented observation can certainly qualify as facts with virtually full facticity, as long as the other preconditions above—that the propositions are binary as to existence in the present or past and subject in principle to multiple observers—are met.[45]

I think we can agree that instrumented observations under some conditions do not destroy or substantially detract from the factual nature of the propositions derived from such observations.

---

[45] We might vary the requirement of human observation through one more level of revision. In modern science, "instrumented observation" is often hardly recognizable as observation at all, as what is produced by the instruments may be simply streams of binary code, or other quite indirect signs that have to be interpreted under presumably justified beliefs about what the instruments are doing and what the instrumented results represent in terms of virtual observation. The extent to which this reduces the central facticity of the results need not concern us a great deal in practice since human triers of fact in legal proceedings will rarely be called upon to wrestle with this and related issues, and then only in regard to certain kinds of expert claims brought before them through the medium of expert testimony. That is the reason this point is made only in a footnote.

Let us now consider whether this facticity is undermined when the time variable is expanded to include predictions. It is easy to be misled here by the claim that predictions cannot be counted as statements of "fact" because they deal with states of the exterior world that have yet to happen. While descriptions deal with states that have already happened (so in some sense they are either totally true or totally false at the time of the statement), that is not the case with respect to predictions. However, I think the instinct to view things in this way is largely misguided. From the perspective of an inquirer with imperfect information (which is every inquirer), both descriptive and predictive statements are probabilistic and may turn out to be wrong. And from the point of view of a notional bettor trying to guess the result of a coin flip in a separate room (heads, tails, or standing edgewise) based solely on probability information (and I take this to be all information at root base), it makes no difference whether the coin was flipped before or after the bet is made.[46] And the prediction–postdiction distinction does not map on to epistemic warrant very well either. Plenty of predictions are better warranted than many postdictions. Compare your own relative confidence in the high likelihood of sunrise tomorrow in the Sahara with whether anyone other than Lee Harvey Oswald played a witting role in the assassination of President Kennedy. There may be certain types of information potentially available for postdictions that are not available for predictions (claims of direct human observation, for instance), but they are often unavailable in the specific case and, even when available, they are fallible and therefore merely probabilistic. It is also true that one must await the time passage entailed in the prediction to obtain information bearing directly on error, but that itself does not directly affect epistemic warrant. Our instinct is that there is something fundamental about the difference between past and future, but from a general probability perspective, that

---

[46] A nice illustration of this principle is given in Vaughn C. Ball, *The Moment of Truth: Probability Theory and Standards of Proof*, 14 VAND. L. REV. 807, 812 (1961). *See also* Michael O. Finkelstein & William B. Fairley, *A Bayesian Approach to Identification Evidence*, 83 HARV. L. REV. 489, 503 (1970) ("The difference between the future and the past is not significant to mathematical probability.").

instinct is almost certainly largely misplaced. So I think we must conclude that predictive statements about facts that will come to be in the world (which the substantive law often requires, especially with remedial issues) lose very little of their factual nature by virtue of their predictive status, even though they rely on somewhat restricted sources of information and require a time delay in principle for confirmation or disconfirmation. Perhaps the latter circumstance might be sufficient to call them facts of a slightly different hue than the prototypical fact.

B. FACTS OF ANOTHER COLOR

Some things that appear at first blush to have full facticity are, on analysis, truly facts of another color, certainly under some circumstances. Take causation.[47]

It needs no citation to establish that the law is centrally interested in causation in many contexts, and that the law treats causation as an ordinary fact. It is also clear to most lawyers that there is something wonky about the facticity of causation, but they generally give little organized thought to why this is.

The law's ancient and main approach to causation might well be labeled "common sense" causation. It is also sometimes called "mechanical linkage" or "billiard ball" causation. It assumes a causal train of events where causes precede effects and create

---

[47] We will restrict ourselves in the main text to the notion of "cause in fact," thus avoiding the problems besetting the notion of "proximate cause." Originally "proximate cause" meant the last (in time) contributing causal circumstance that rendered the result inevitable and not contingent (the notion figured in theological arguments about why God was not responsible for sin, assuming free will). In most of the modern world of tort law after *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99 (N.Y. 1928), proximate cause generally involves foreseeability of outcome and concomitant risk allocation and limitation on the scope of liability. *But see* RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 29 (defining scope of liability in terms of the harms caused by the conduct that rendered the defendant's act tortious). The drafters of the Restatement took this formulation to be "essentially consistent" in negligence actions with the foreseeability test. *Id.* § 29 cmt. j. At any rate, the "foreseeability of harm" version of proximate cause does create an issue of fact. All foreseeability questions entail the same problem of counterfactual prediction as but-for causation, so the analysis in the text roughly holds.

While I am at it, I will note that I have not dealt with the factual nature of the covering generalities of scientific theories. These generalities present very interesting problems of facticity but luckily are not likely to become ultimate jury issues in litigation.

sufficient conditions such that the end effects become inevitable.[48] This approach to causation suffers from a central problem that deprives it of full, ordinary facticity: the problem of counterfactual prediction.[49] This becomes obvious when we consider what is actually being claimed when causal status is asserted. The core question is the famed "but for" question. "But for" the putative cause (or combined set of causal factors[50]), would the effect have occurred? This inquiry requires a person investigating the question to ask "what would have happened if the putative cause had not existed (even though it did in fact exist)." That question is both counterfactual and predictive. The question of ordinary cause cannot be resolved without answering the counterfactual, predictive question. So the question of causation suffers from both the mild problems of facticity associated with prediction and the worse problems flowing from requiring a counterfactual prediction. This is not to say that counterfactual predictions cannot be empirically well warranted, at least in a practical sense. If the gun had not been fired into the victim's head, death would not have occurred at that time. We can be much surer of the truth (founded on good empirical evidence) of that counterfactual, predictive statement than that of many ordinary facts into which we inquire.[51] Nevertheless, the problem of the counterfactual prediction clearly makes ordinary causation a fact of another color than the prototypical fact in the world outlined above, and

---

[48] This approach is generally consistent with more detailed reflections on causation, such as those of Richard Wright. *See generally* Richard W. Wright, *Causation, Responsibility, Risk, Probability, Naked Statistics, and Proof: Pruning the Bramble Bush by Clarifying the Concepts*, 73 IOWA L. REV. 1001 (1988).

[49] It also suffers from the ordinary "problem of induction" so well laid out by Hume, but this problem is of little practical impact in legal settings, unlike the problem of counterfactual prediction.

[50] Wright proposes a refinement of "but for" causation, which he calls the NESS principle, where a factor is not a candidate to be characterized as a cause unless it is a Necessary Element in a Sufficient Set of conditions (NESS). WRIGHT, *supra* note 48, at 1019. This proposal removes the problem of overvaluing the "chain" image of but-for causation by recognizing the network nature of causal interactions. Nevertheless, Wright concedes that counterfactual prediction is implied by his more refined model as well. *Id.* at 1039.

[51] As Wright says, "counterfactual analysis employed in the causal inquiry is not nearly as open-ended as many believe." *Id.* at 1040.

certainly one not easily domesticated to simple correspondence notions.

C. FACTS RELYING ENTIRELY ON INFERENCES FROM FORMAL DATA

There is another, newer notion of causation that is now part of our legal landscape, which I have dubbed "increased risk" causation.[52] It is based on statistical causal inference models in science.[53] Consider the causation issue in a typical toxic tort case. The real inquiry in that case cannot be "Did *X* agent cause this particular plaintiff's birth defect?" (in anything but a purely formal or notional sense). This is because, with very few exceptions, that question is unanswerable, at least in the ways we find most satisfying when dealing with causation in everyday common-sense terms (causation conceived of by a sort of "mechanical linkage" metaphor, which is most comfortably understood in situations of physical impact). This is for two reasons: first, because it is exceedingly rare that every exposure to such a claimed causal agent is always followed by the asserted effect, and second, because such birth defects have a background rate of natural occurrence. So, at least given the current state of knowledge, we cannot know whether the plaintiff's defect was one that would have occurred without exposure to the agent in question. In other words, toxic tort cases cannot yield satisfying answers to questions of "but-for" causation. At least given our present knowledge, those cases often inject what appears to be significant randomness in to any causal linkage that exists, and it is conceivable that this element of randomness might exist as part of the linkage phenomenon even if we had something approaching perfect knowledge. However, for our purposes, we must note that the rise

---

[52] Well, I and a co-author. *See* Denbeaux & Risinger, *supra* note 40, at 34–37 (discussing "increased risk" causation in toxic tort cases).

[53] *See generally* WILLIAM R. SHADISH, THOMAS D. COOK & DONALD T. CAMPBELL, EXPERIMENTAL AND QUASI-EXPERIMENTAL DESIGNS FOR GENERALIZED CAUSAL INFERENCE (2001). *See also* N.J. Schweitzer & Michael J. Saks, *Jurors and Scientific Causation: What Don't They Know, and What Can Be Done About It?*, 52 JURIMETRICS J. 433, 433–40 (2012) (discussing issues surrounding jury evaluation of causation based on formal probabilistic evidence).

in risk involved in such causal inferences is in effect a proxy for ordinary causation, both general and specific. And the rise in relative risk is, upon reflection, a fairly ordinary fact that, although not binary, is theoretically subject to establishment by well-warranted empirical evidence.

In addition, the jury's role is made as explicitly non-normative as possible in cases involving this type of causation—its only function is to determine whether the rise in risk attributed to the defendant's product or conduct exceeded some legally designated threshold (most commonly a doubling of the background risk).[54] So risk-rise causation presents a special case of negligence as a matter of law. Although dealing with the question of which sources of data on risk increase are to be admissible, preferred, or required, and how they are to be combined, is a daunting issue, the very notion of risk-rise causation inevitably collapses the concepts of general versus specific causation (since both must be inferred from exactly the same data), conceptually the facticity question (treating rise in risk as an ordinary fact in the world) is not especially puzzling. Nevertheless, that lay jurors may find it difficult to handle the technical issues surrounding facts like this might suggest a need for special procedures to maximize the accuracy of results, or even for the use of special juries.[55]

D. NON-BINARY MAGNITUDE JUDGMENT ISSUES

There are many legal contexts, mainly in civil controversies, where the market value of land, or some similar nonfungible good,

---

[54] *See* Denbeaux & Risinger, *supra* note 40, at 36 (discussing a doubling of risk as the "most popular answer" for fastening liability onto the defendant).

[55] A related set of issues arises when more-or-less ordinary facts in the world usually proved by non-formalized information (the identity of the perpetrator in a criminal case, for example) also have relevant formal data available. Here, the difficulty is one not only of understanding the data but also of understanding how to combine the information represented by the formal quantification with the other non-quantified informal information bearing on the same issue. But since the nature of the issue is one of ordinary fact ordinarily amenable, at least in theory, to resolution in many or most cases without resort to formal data, it is not the nature of the issue that presents the problem, but the nature of the information sometimes relevant to the issue. Therefore, this situation is noted here for the sake of completeness.

is an important element of a remedial formula. The very nature of the concept "market value" in such cases is fraught with conceptual problems. With its hypothetical "willing buyer" and "willing seller" operating under conditions usually nonexistent in the real world, it is a purely abstract concept not grounded in any particular actual sale, even of the very land in question. After all, the value of a particular sale might reflect idiosyncratic factors not accounted for in the abstract notion of market value. Thus, market value is not a "fact" (or a predictive fact), in the same sense that, say, the result of a future election is.

And yet, market value is constructed from empirically factual knowledge. No one suggests that market value, as a concept, is totally unrelated to real sales in the market. Rather, it derives from the assumption that sales of comparable goods occurring fairly close in time to the relevant time produce a probable range of sale prices for the particular item in question. And of course the conditions in the world sometimes approach the theoretical conditions of an "efficient market" very closely. In the case of fungible goods (like dollars or units of commodities on a commodities market) and nearly uniform access to information among all market participants, real-world sales may come sufficiently close to ideal market value to avoid all problems. However, no one can say with well-warranted confidence what the exact market value of a nonfungible item like land is; worse still, among those who study the process of predicting likely future sale value, there is no reliable agreement on what constitutes comparable sales. As a result, the law finds itself in a quandary. If the existence of a remedy turns on market value, which is inherently imprecise, indeterminate, and unacceptably vague (and therefore given the death sentence label "speculative"), then the plaintiff (restricting the discussion to civil cases) will suffer a failure of proof in every case. What to do? Allow each side to call its own "expert," knowing that each side's experts will cheat as far in favor of their own employer as they judge the "straight-face" test will allow.[56] The penalty for cheating too far is that the jury is

---

[56] *See* D. Michael Risinger, *The Irrelevance, and Central Relevance, of the Boundary Between Science and Non-Science in the Evaluation of Expert Witness Reliability*, 52 VILL.

likely to swing toward the number offered by the other expert. Each expert's number, then, will define the limits of a range. Any number within the range is an acceptable remedy—truly, this is a case without a single determinate right answer.[57] Where within the range damages are fixed is left to the jury's judgment, based on its own evaluation of the persuasiveness of each expert. In this case, very undependable expertise is used to forge a satisfactory result.[58]

Up to this point in the analysis, we have identified a number of issues commonly, and perhaps not inappropriately, labeled issues of fact, which do not easily fit a simple correspondence theory of truth—one that says that a proposition of fact is true when it corresponds to the way the world is, was, or will be at some time. This in no way denies that such issues are properly considered within the jury's competence or properly viewed as (*mutatis mutandis*) largely empirical issues. For instance, humans seem to deal sufficiently well with commonsense "mechanical linkage" causal attribution in practical circumstances and do not worry about the analytic status of its counterfactual component or generate special evidentiary doctrines to deal with it.

However, this is not always the case with all types of "facts of a different color," as the market value example clearly shows (and perhaps the "risk-rise" causation issue also). Sometimes the price of using such "facts" as an element of a claim, defense, or measure of remedy is (and should be) sensitivity to their special status and difficulties. In such cases, we must recognize that the truth being

---

L. REV. 679, 699 (2007) ("Plaintiffs' experts cheat as high on the value as their notion of comparable sales and the 'straight face' requirement will allow. Defendants' experts do the same in the other direction . . . and whatever the jury picks in the range so defined is a legally and morally proper result.").

[57] This arrangement has much in common with "final offer" arbitration, also known as "baseball arbitration," except that in such arbitration the decision maker is not allowed to pick an intermediate number. *See* Jason Micah Ross, Note, *Baseball Litigation: A New Calculus for Awarding Damages in Tort Trials*, 78 TEX. L. REV. 439, 449 (1999).

[58] It is clear that, even after *Daubert*, valuation experts have been subject to very weak reliability scrutiny. *See* Sofia Adrogué & Alan Ratliff, *Kicking the Tires After* Kumho*: The Bottom Line on Admitting Financial Expert Testimony*, 37 HOUS. L. REV. 431, 434 (2000) (highlighting how financial experts have "traditionally avoided the fire that increasingly scathes medical, engineering, and other scientific experts").

sought, which will hopefully be reflected by a finding, can only be achieved if the trial and evidentiary process is adjusted to take these special conditions into account.

This is certainly true of market value for nonfungible goods. The kind of expertise we have to allow to make the system work in the desired way is in some ways not very valid or reliable expertise. It would be wrong to use the same standards of baseline reliability in this factual context—to prove this kind of fact in a civil suit for compensation—as we would impose on government-proffered expertise used to establish criminal guilt, especially the binary fact of the identity of the perpetrator as the defendant. And vice versa. Different kinds of facts combined with different substantive contexts may require different standards. This is why there can never properly be a one-size-fits-all concept of threshold reliability for proffered expertise under Rule 702.

If, as just illustrated, the implications of different kinds of empirical facts can require adjustments to trial and proof policies—and draw the propriety of "one size fits all" rules into question—this becomes even more clearly the case when the "fact" issue is ultimately not one of fact, but one of value judgment delegated to the jury under the label "fact."

E. ISSUES OF "FACT" THAT ARE REALLY VALUE JUDGMENTS OFFICIALLY DELEGATED TO THE JURY UNDER A "NORMATIVE WARRANT"

Now, virtually no sophisticated observer would fail to concede that sometimes we use juries to perform value-judgment functions beyond pure factfinding. How else would we account for the jury's conceded power to translate subjective suffering into a monetary award? And moving from remedies to rights, there are still plenty of examples. Take negligence, for one. The conclusion that an act (or failure to act) was negligent is a value judgment organized around such notions as "reasonable person" and "careful enough." If we had a full color, full feel, full smell hologram of the events alleged to constitute "negligence," complete with a cap that would induce experience of the conscious subjective states of the actors from instant to instant, we would still need some mechanism to

make the normative judgment.[59] In such cases the jury acts, under official delegation and warrant, not only as factfinder but also as the source of normative judgment. It is like a particularized legislature for just this case. It performs "discretion" in the best sense of the word, "discrete-tion," making a case-specific or "discrete" normative judgment—guided only by general statements of principle that define the scope of its normative authority—to arrive at justice in the particular circumstances of the case.

The common term used to describe such issues, "mixed questions of law and fact" seems almost designed to conceal the jury's normative authority. In fact, they are better described as "mixed questions of fact and value"[60] because some effort to determine the facts is always antecedent to the normative judgment. Note, however, that in such circumstances the exact historical details bearing on the normative judgment are not particularly specified in advance by any legal rule. What facts are "relevant" to the material issue of negligence is subject to an individualized determination in each case, first by the judge and then by the jury, both under the press of adversary argument.

That such normative warrants are entailed by the definition of an ultimate "fact" under the substantive law is hardly uncommon. For instance, they occur whenever the issue turns on the "reasonableness" of human conduct under a reasonable person standard, and in the law (unlike the rest of life, perhaps) the reasonable person is everywhere. This actually brings us into the whole "Rules vs. Standards" discussion that occupies a large and significant part of the jurisprudential literature over the past twenty-five years. Larry Alexander and Ken Kress set out the distinction thus: "Rules are legal norms that are formal and mechanical. They are triggered by a few easily identified factual

---

[59] *See* Risinger, *Taxonomy*, *supra* note 40, at 526–29 ("[T]here would still be a critically important function for the jury: to say whether or not the behavior of the defendant was or was not 'careful enough'"); *see also* Gergen, *supra* note 37, at 424–27 (discussing how the jury "has a great deal of normative discretion in deciding what is reasonably prudent conduct").

[60] Risinger, *Taxonomy*, *supra* note 40, at 526.

matters and are opaque in application to the values that they are designed to serve. Standards, on the other hand, are flexible, context-sensitive legal norms that require evaluative judgments in their application."[61] Professor Gergen notes that "[s]ome commentators insist on a further division between standards that specify a value or goal and ask the decision-maker to administer the standard consistent with that value or goal, and those that leave it to the decision-maker to choose among diverse and sometimes conflicting values or goals."[62] Most (but perhaps not all) decisional criteria properly classed as standards carry a normative warrant, and in the final judgment deal not with facts but with value judgments.[63]

F. STATES OF MIND—FACTS OF YET ANOTHER COLOR, VALUE JUDGMENTS, OR BOTH?

Many claims, both criminal and civil, require the determination of the state of mind of one or more human actors at the time of some act or event. States of mind are not factual in the same way that whether it was cloudy at noon in Newark last Wednesday is factual, despite the rather flippant but oft cited observation of Lord Justice Bowen that "the state of a man's mind is as much a fact as the state of his digestion."[64] However, assuming Justice Bowen was referring to more than simply the feeling of stomach pain, this just is not so. Determining the state of digestion

---

[61] Larry Alexander & Ken Kress, *Against Legal Principles*, 82 IOWA L. REV. 739, 740 (1997).

[62] Gergen, *supra* note 37, at 407 n.1. I am happy to make good use of this article because I overlooked it when I first became interested in fact-finder normative warrants. My only excuse, that I was concentrating more on criminal matters, is a pretty lame one. It is an excellent article, and so I feel I owe Professor Gergen a make-up.

[63] Professor Gergen counts as "standards" only decisional criteria that contain such a normative component. For other criteria that require magnitude judgments or other forms of evaluation of specified factors toward the determination of an ultimate issue that is properly viewed as a fact (as is the case in determining lost future income, for instance, or risk-increase causation), he prefers the label "formula." *See* Gergen, *supra* note 37, at 407 n.1. A standard involving such judgment "that leaves the decision-maker no choice regarding relevant values or their weight might better be labeled a 'formula,' to distinguish it from standards requiring a value judgment." *Id.*

[64] Eddington v. Fitzmaurice, [1885] 29 Ch. Div. 459, 483 (Eng.).

requires empirical assumptions about independent physical entities in the world, observations that are theoretically available to every observer. There are no a priori privileged observers. Subjective states (at least more or less conscious ones that the law generally cares about) all have one privileged observer: the person directly experiencing the subjective state.[65] Other humans must either rely on that observer's reports, or on circumstances plus empathetic projection ("If I did that under those circumstances, what might I be thinking or feeling?"). Empathetic projection generally yields a range of possibilities. Perhaps when a person puts a gun behind another person's ear and pulls the trigger, both the shooter's belief that the person will die and the desire that death be the result are pretty firm empathetic inferences in most contexts, for what else of any likelihood can we imagine in such circumstances?[66] But when a car runs off the road at night and the driver was neither under the influence of any mind-altering substances nor available to report on his or her state of mind, the range of potential subjective accounts is very great. Even the driver's current testimony may not clarify matters all that much. This is because of not only the privileged-observer issue but also the law's attempt to impose binary category definitions (negligent, willful, knowing, etc.) onto phenomena that are often continuous, labile, and mixed. The phenomenon we experience of "being of two minds" about something is an illustration. Indeed, it may not be too much to say that we usually live in a world of mixed motives.

But the "facticity" of states of mind in most legal contexts is undermined not merely by the privileged-observer problem, or by

---

[65] There is, of course, a variety of schools of philosophical and scientific thought that regard subjective states as irrelevant to anything, ontologically, epistemologically or morally. On the claim that subjective states are merely epiphenomena that may correlate with actions but have no cause/effect relationship with them, see JOHN R. SEARLE, MIND: A BRIEF INTRODUCTION 30 (2004) (describing, but not embracing, epiphenomenalism). Some think that the discoveries of modern neuroscience establish a similar thesis about conscious mental states, their existence and meaning. The state of play in that regard is reviewed and critiqued by Professor Haack in HAACK, *supra* note 23, at 213–38. Of course, the law is centrally committed to the operational reality and moral relevance of states of mind, and therefore must adopt some stance that affirms the possibility of well-warranted inference concerning them. It is the nature of that stance with which the text is concerned.

[66] There is always the possibility of delusional hallucination.

the "mixed motives" and "being of two minds" problem. In many if not most legal contexts, determining states of mind has an inescapable value-judgment component, which is part of the jury's official warrant and which changes the ultimate issue from one of fact to one of value. And this makes a great deal of difference when talking about such things as proper standards of admissibility and proof.

Most state-of-mind judgments that we expect juries to make, such as negligence, recklessness, or insanity, carry a more or less explicit normative warrant. So, at common law, did the definition of mens rea (think of "malice aforethought").[67] On the other hand, the two state-of-mind definitions that figure most prominently in establishing criminal responsibility in modern American criminal codes, "acting knowingly" and "acting purposely," apparently resulted from an explicit attempt by the American Law Institute to craft state-of-mind categories that fulfilled the requirements of the official ideology as closely as possible, with the value judgment inhering entirely in the category definition without further normative input by the jury.[68] How successfully this was accomplished is subject to debate.[69] The definitional language is not transparently easy to apply across a large range of situations. Except in certain prototypical cases squarely within the bull's eye of the categories, it is often unclear what was intended. More importantly, in many cases the practical issue is whether the perpetrator acted recklessly or knowingly. Since the recklessness judgment *a fortiori* carries an explicit normative warrant, and the "knowingly" state is apparently supposed to be worse than the "recklessly" state, it would not be surprising if many juries simply extended the normative continuum and determined whether

---

[67] At common law, mens rea "doubtless meant little more than a general immorality of motive." Francis Bower Sayre, *The Present Signification of Mens Rea in the Criminal Law*, *in* HARVARD LEGAL ESSAYS 399, 411–12 (1934).

[68] *See* Kenneth W. Simons, *Rethinking Mental States*, 72 B.U. L. REV. 463, 535 (1992) (discussing the ALI's implementation of element analysis to provide mental state definitions in the Model Penal Code).

[69] *See id*. at 534–35 (discussing whether Model Penal Code's mental state concepts are descriptive or evaluative); *see generally* Richard Singer, *The Model Penal Code and ~~Three~~ Two (Possibly Only One) Ways Courts Avoid Mens Rea*, 4 BUFF. CRIM. L. REV. 139 (2000).

something was done knowingly by whether they thought it was worse than reckless.[70]

Even if we were to concede that at least some state-of-mind judgments are as close to "ordinary" fact judgments as they can be, it seems nevertheless true that the jury will operate best in a contextually rich environment. Such state-of-mind judgments depend heavily on minor variations in detail, but the details that properly condition them are not well specified by the substantive law. In fact, the very thing that renders a detail relevant—the experience-based general background assumptions that individual jurors use in empathetic projection—can neither be fully exposed nor effectively coordinated except regarding a few conditions. Consequently, state-of-mind judgments are best handled in an environment that anthropologists (and legal theorists influenced by them) call "thick description."[71] And this is even more true, I suggest, regarding value-judgment issues determined pursuant to delegated normative warrants. Contrast this with pure binary fact determinations, which are more accurately handled in a more controlled and less contextualized information environment devoid of as much "heartstrings and gore" information as possible. This is the main reason that I have suggested different trial rules when the only practically triable issue in a criminal case is whether the defendant was the perpetrator of the crime ("identity") as opposed to cases where the practically triable issue is state of mind or some

---

[70] *See generally* Paul H. Robinson & Jane A. Grall, *Element Analysis in Defining Criminal Liability: The Model Penal Code and Beyond*, 35 STAN. L. REV. 681 (1983).

[71] The term appears to have been coined by the British philosopher Gilbert Ryle. *See* GILBERT RYLE, *Thinking and Reflecting*, *in* 2 COLLECTED PAPERS 465, 474–79 (1971). However, it is most closely associated with the anthropologist Clifford Geertz. *See* CLIFFORD GEERTZ, *Thick Description: Toward an Interpretive Theory of Culture*, *in* THE INTERPRETATION OF CULTURES 3, 3 (1973). The notion is that every piece of descriptive information, often best generated in the form of a detailed expository narrative, contributes to the proper understanding of an event within a culture and its practices. It was meant to rescue anthropology as an exercise in descriptive (anecdotal) empirics from the inroads of extreme quantifiers. Embracing notions of the virtue of thick description in trials raises the question of the various uses of context, and the line between relevant and irrelevant context information. *See* Risinger, *supra* note 13, at 403, 441–46 (discussing the potentially negative effects attendant to thick description, especially in a criminal trial).

other issue actually benefitting from thick description of the surrounding events.[72]

III. SUMMARY AND CONCLUSION

The truth the law seeks, one of the two primary goals of litigation, is factual accuracy about the material details that gave rise to the case before the court. However, what the law treats as facts, and hence the kind of truth the law seeks, comes in a variety of "colors" that depart in varying degrees from the central correspondence image of truth about facts in the world. Indeed, some of law's facts involve things that in their final determination are not facts at all, but rather value judgments made by the jury pursuant to more-or-less explicit delegations of "normative warrant."

For over a century the central drive of proof process reform has been toward simplification and trans-substantivity—the search for a single, simple approach to evidence and proof that is maximally truth-conducive in every factual and legal context. However, this ideal goal was based upon an untenable notion of fact inquiry that treated all of the law's facts as presenting the same kinds of empirical issues. But the variety of "fact" issues raised by the substantive law as targets of proof makes such a one-size-fits-all approach a fool's errand. Different types of issues require different approaches to, among other things, the level of reliability necessary for admissibility of otherwise-relevant information, and the tightness of control to be exercised over "contextualization."

I first began thinking along these lines by reflecting on why our criminal process allows so much "heartstrings and gore" evidence in serious criminal cases where the only practically triable issue is whether the defendant was the perpetrator.[73] It seemed to me that such evidence might often be useful, and therefore conducive

---

[72] *See* Risinger, *supra* note 15, at 1310–13 (discussing in detail the benefits of alternative trial rules in a situation where the only practically triable issue is whether the defendant was the perpetrator of the charged crime).

[73] *See generally* Risinger, *supra* note 13 (analyzing "heartstrings and gore" evidence at length).

to the truth the law was seeking, if the issue were one of mens rea, but not if the issue were the pure binary fact issue of whether the defendant was the perpetrator. In those cases, extra contextualization could only serve to reduce accuracy, or at least undermine the standard of proof beyond a reasonable doubt, by emotionally affecting the factfinder's decision thresholds. So it seemed to me that in trials where the only practically triable issue was whether the charged defendant was the perpetrator, there should be an especially restrictive approach to allowing emotionally charged contextualization, which might not be the right approach when the triable issue was one of the level of criminal responsibility represented by a state-of-mind determination. And so it still seems to me. But beyond this particular point, this approach suggests a more general lens through which to view the proper standards of evidence and proof regarding each species of fact that the law presents, and it is the view through this lens that I have tried to open up in this Article.