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# Inquiry, Relevance, Rules of Exclusion, and Evidentiary Reform

*D. Michael Risinger*<sup>†</sup>

We are metaphorically assembled in this volume in celebration of the career of Margaret Berger, whose ideas on evidence and proof have enriched all of our work. Throughout her career, she has been concerned with both the theoretical and practical aspects of our enterprise as scholars. In such a setting, I hope that a reverie on fundamentals, followed by a modest call for reform, will not be looked upon as out of place.

It seems to me that there are some foundational issues in regard to the very notions of relevance and of rules of exclusion that can profitably be reexamined. First, I will assume that the issue of “exclusion” of information will arise in the context of an inquiry, that is, some human activity undertaken to at least attempt a determination about an issue for which the answer is initially unknown. Second, I will assume that the issue involved is often (but not always) properly characterized as an issue of fact in its most basic sense, that is, a question the answer to which will be a proposition about a specific empirically determinable<sup>1</sup> state of the world (assumed to be) exterior to human consciousness. It is to such issues I will confine myself, at least initially.

In any situation fitting this description there will be a human inquirer who, at the beginning of the process, is in a poor state of knowledge, that is, the inquirer’s state of available

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<sup>†</sup> John J. Gibbons Professor of Law, Seton Hall University School of Law. An early version of this paper was presented at the Miniforo on Legal Epistemology organized by Larry Laudan and held at the National University of Mexico in June, 2008. I would like to thank Professor Laudan for inviting these reflections, and the participants in the Miniforo on Legal Epistemology, particularly Ronald Allen and Erik Lillquist, for stimulating further reflections. I would also like to thank Craig Callen, Dale Nance, Roger Park, Charles Sullivan and Peter Tillers for very helpful comments on drafts of this paper, and Lesley C. Risinger for the usual indispensable aid, substantive and editorial.

<sup>1</sup> By using the word “determinable” I do not mean to commit myself to any strong claims about the perfection of knowledge, as will become obvious from the rest of the paper.

information is such that a finding<sup>2</sup> concerning the fact in issue would not be well-warranted. The point of the process is to enable the inquirer to have the information necessary either to make a properly warranted finding, or to conclude that such a finding would not be properly warranted based on the information obtained through the process.<sup>3</sup>

So far, we have not imposed any constraints upon the process involved, beyond whatever is implied by the word "process." The process could be time-bound, or not. The process could involve a single inquirer or a group. The process could require the declaration of a conclusion, or not. The process could authorize the inquirers to obtain information (investigate) themselves, or disable inquirers from so doing, in whole or in part, after the process begins (thus splitting the decisional aspects of an inquiry from the investigative function). Such latter process would require or authorize investigation by non-decisionmakers, with an eye to potentially providing the results of such investigation to the decisionmaker, whether or not the decisionmaker could also investigate independently of others. It could allow some forms of investigation but not others, or rule out of bounds some forms of information.

This "ruling out of bounds" is the essence of an exclusionary rule. It is in the context of an inquiry involving a split between investigation and decision agents where we are most used to seeing exclusionary rules advanced or attacked, but the notion of an exclusionary rule is not theoretically limited to this context. Of course there might be practical constraints on inquirers making good faith efforts to follow mandated exclusions in a unitary function inquiry. Indeed, in the legal context, it is sometimes said that exclusionary rules in unitary systems make no sense because judges must look at the evidence to determine if they should not see it.<sup>4</sup> But this goes too far. They need not look at the content under all forms of exclusionary rule. Sometimes they can merely look at the package. A rule directing a judge to "consider nothing in writing" would not necessarily expose a judge to any

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<sup>2</sup> I use the word "finding" and "determination" interchangeably.

<sup>3</sup> The issue concerning how much information is enough for a properly warranted finding in any given inquiry is a policy issue concerning the proper standard of proof, to use the legal term. In many non-legal settings each individual may be free to adopt whatever standard seems appropriate to them.

<sup>4</sup> See MIRJAN R. DAMASKA, EVIDENCE LAW ADRIFT 47 (1997).

information beyond the fact that a writing exists, before the judge put the writing out of sight and out of consideration. Of course, most proposed exclusionary rules are not like this, but it is important to keep in mind that whether an inquirer is exposed to proscribed information in the process of determining its proscribed status falls along a continuum ranging from the necessity of full exposure to a situation where very little exposure is required, depending on the nature of the rule.

Which brings us to the question of what a “free proof” process of inquiry without any exclusionary rules whatsoever would look like.<sup>5</sup> I take as my model of such a process an inquiry by an individual into whether, say, other humans had advance knowledge of Lee Harvey Oswald’s intention to take his Mannlicher Carcano rifle to work and attempt a shot at John Kennedy from the 6th floor window of the Texas School Book Depository on November 22, 1963.<sup>6</sup> From the perspective of this notional inquirer, the notion of pure free proof makes sense. The inquirer is totally free to consider whatever the inquirer believes to be information bearing on the inquiry, to take as much time as necessary to come to a conclusion, to come to no conclusion, or to any conclusion whatsoever, to any degree of certainty that results from the process and the

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<sup>5</sup> I am here using the term “free proof” in what is probably its most commonly assumed meaning in English, that is, in its strongest sense, the complete absence of any rules of exclusion, and in a weaker sense, the absence of all rules of exclusion except irrelevance. Deirdre Dwyer traces this use of the term to Thayer. See Deirdre M. Dwyer, *What Does It Mean To Be Free? The Concept of “Free Proof” in the Western Legal Tradition*, 3 INTERNATIONAL COMMENTARY ON EVIDENCE 2 (2005), available at <http://www.bepress.com/ice/vol3/iss1/art6/>. The other dominant meaning of the term refers to the unconstrained freedom of the factfinder to evaluate what is in front of the factfinder in any way that seems best, unconstrained by any other arrangements such as rules of fixed evaluation (corroboration, “half-proof” etc.), presumptions, authoritative comments on inferential strength, whether mandated or simply authorized, etc. I would prefer to call the latter “free inference.” (And, in fact, this is better in line with post-revolutionary French terms that are the source concepts, *liberté des preuves* for the first and *liberté d’appréciation* for the second. See *id.* at 7.) “Free proof” in these terms thus concentrates in a legal context on the provision of information (or asserted information) and “free inference” on the use of whatever information is provided, so that free proof describes the freedom to proffer, and free inference the freedom to evaluate what is proffered in any way that seems appropriate, given the task to be undertaken by the factfinder (which in a legal setting would still be defined by the substantive law through instructions). A further step, which might be said to prevail in an extreme system of equity discretion, might be called “free decision” (and might encompass such things as jury nullification), but that is way beyond the scope of this paper.

<sup>6</sup> For purposes of this little reflection, I am assuming (perhaps counterfactually) that there is no reasonable controversy that Oswald did take his rifle to work with an intent to take a shot at President Kennedy from the 6th floor of the Texas Schoolbook Depository building on November 22, 1963.

information discovered and considered. If the inquirer takes ouiji board<sup>7</sup> pronouncements as authoritative (relevant, strongly probative) there's no law (or a priori rule) against it.

If, on the other hand, the individual wishes to persuade others of any conclusion reached, the individual would be well-advised to take into account the epistemic investments of the target audience, because what the individual regards as providing a strong warrant for the conclusion may not be so taken by others. In that case, when the individual sets out to persuade, or to provide a warrant seen as acceptable to the audience, the audience may in practical terms impose a rule of exclusion on the one seeking to persuade: no reference to ouiji board results should be given, tendered, proffered, presented or suggested.

Well, you might say, that would not be a systemic rule, really, but a rule of persuasive or rhetorical prudence. And so it would be, if the context involved were merely history as a hobby, or a free intellectual pursuit. But now assume some official action, which will benefit some and be a cost to others, is made to turn on the results of the inquiry. Now there is more at stake than merely personal investments (for one thing, the newly imposed functional conditions require some time limits for decision). It would seem that now there must be an officially declared criterion of some sort concerning what is in bounds, and what is out of bounds, as providing material for an acceptable belief warrant. This circumstance is heightened in any such process (which by definition involves conflicting interests) in which representatives of the conflicting interests are allowed to proffer information to the inquirer. Real free proof would permit the destruction of functionally required time constraints by filibuster, and in many cases one side would have an incentive to undertake such a strategy.<sup>8</sup>

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<sup>7</sup> Otherwise known as a channeling board, spirit board, or talking board. I have adopted the popular spelling "ouiji" (also sometimes spelled "weege"), which reflects the common pronunciation, in preference to the original spelling "Ouija," which is trademarked.

<sup>8</sup> A similar observation was made in that classic of modern legal relevance theory, George F. James, *Relevancy, Probability and the Law*, 29 CAL. L. REV. 689, 701 (1941). The James article is justly famous, being cited as a source for the approach of FRE 401 in its Advisory Committee note, FED. R. EVID. 401 advisory committee's note, among other things, and at 17 pages is one of the shortest law review articles of lasting theoretical impact in the modern era. This is especially striking, considering the fact that James was predominately a tax/estates and trusts practitioner who was only in the academy (as an assistant professor at the University of Chicago) for less than five years in his mid-30s, and that he only wrote two articles on evidence topics (out of 11

Nor is it a simple solution to this problem to invoke the concept of relevance as the sole criterion to be applied to items claimed to be properly considered as “information” in such a context, because relevance is a much more problematic concept than most people realize. I think there are generally two contrasting ways to approach the notion of relevance, which I will call the “god perspective” and the “processor state perspective.” From the god perspective, there is no limit to the concept of relevance. Even if we conceive of a god-being who is not in some sense omniscient to begin with, the minimum assumption of the god perspective is that the god inference maker knows all that is necessary to make as much accurate inference as possible from any given item proposed for consideration, and has no time or processing capacity constraints.<sup>9</sup> In such a circumstance, there is no obvious stopping point between any piece of factual information and all the facts that can be—the Laplacian hyper-inference grok.<sup>10</sup> Everything becomes relevant to everything in a virtually tautological sense,<sup>11</sup> or at least there is no knock-down reason to believe it doesn’t.<sup>12</sup> So the god perspective on inference is, for

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total, many of which were tax articles written after he returned to practice.) (Searching his name as author in the Hein-on-Line journals database will confirm this.)

<sup>9</sup> “Laplace probably had God in mind as the powerful intelligence to whose gaze the whole future is open. *See infra* note 11. If not, he should have: 19th and 20th century mathematical studies have shown convincingly that neither a finite, nor an infinite but embedded-in-the-world intelligence can have the computing power necessary to predict the actual future, in any world remotely like ours.” Carl Hofer, “Causal Determinism,” STANFORD ENCYCLOPEDIA OF PHILOSOPHY ONLINE, <http://plato.stanford.edu/entries/determinism-causal/>.

<sup>10</sup> The word “grok,” signifying an immediate and perfect knowledge of one thing derived from another (often empathetic subjective states between two individuals) was coined by Robert A. Heinlein in his book STRANGER IN A STRANGE LAND, but it has now made it into the OED.

<sup>11</sup> Consider this from Laplace:

We may regard the present state of the universe as the effect of its past and the cause of its future. An intellect which at a certain moment would know all forces that set nature in motion, and all positions of all items of which nature is composed, if this intellect were also vast enough to submit these data to analysis, it would embrace in a single formula the movements of the greatest bodies of the universe and those of the tiniest atom; for such an intellect nothing would be uncertain and the future just like the past would be present before its eyes.

PIERRE-SIMON LAPLACE, *ESSAI PHILOSOPHIQUE SUR LES PROBABILITÉS* (1814).

<sup>12</sup> Laplacian “lockstep” determinism (also called causal, nomological, or hard determinism) is a member of a family of philosophical problems (radical skepticism and others) which are difficult or impossible to refute completely, but which virtually nobody believes, at least in any operational sense. (For a recent examination of various forms of determinism in light of the “determinism/free will” debate, see generally DANIEL C. DENNETT, *FREEDOM EVOLVES* (2003)). Perhaps needless to say, I do not

any pragmatic human use (including use as a limitation on filibuster), worthless,<sup>13</sup> yet it is the stance that seems to be assumed in many legal rules and discussions of inference,<sup>14</sup> particularly rules like Federal Rule of Evidence 401.

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embrace Laplacian determinism, but I believe the mental experiment in the text which assumes it is instructive nonetheless.

<sup>13</sup> Another conceptual problem avoided by rejecting the god view is the problem of what has been called “unknown relevance,” that is, evidence that is “relevant” but whose “probative value [is] *entirely unknown*, at least to an ordinary reasonable trier of fact.” Dale Nance, *Conditional Relevance Reinterpreted*, 70 B.U. L. REV. 447, 456 n.30 (1990); see also Richard Lempert, *Modeling Relevance*, 75 MICH. L. REV. 1021, 1029-30 (1977). In my view, such proffers, while perhaps potentially relevant under *other* conditions, are simply “irrelevant” in any meaningful sense. This can be an especial problem when legislatures, for whatever reason, attempt to declare information categorically admissible when the covering generality connecting the evidence to the desired conclusion would be in many or most cases unknown to judge and jury alike, as in the case of the presumption of importation of marijuana from the mere fact that a seized substance was identified as marijuana, which was one subject of examination in *United States v. Leary*, 395 U.S. 6 (1969). See Harold A. Ashford and D. Michael Risinger, *Assumptions, Presumptions, and Due Process in Criminal Cases: A Theoretical Overview*, 79 YALE L. J. 165, 205-08 (1969).

<sup>14</sup> This approach is sometimes referred to as the theory of “logical relevance” (though why it is thought to be more “logical” than other approaches is not entirely clear) and sometimes as the theory of “minimal relevance.” Professor Callen attributes its initial explicit exposition to Professor George James, and the “minimal relevance” terminology to Professor Tillers. See Craig R. Callen, *Rationality and Relevancy: Conditional Relevancy and Constrained Resources*, 2003 MICH. ST. L. REV. 1243, 1254 n.51, 1280 n.182 (2003). The limitlessness of “minimal relevance,” that is, relevance when viewed as a quality of the relationship between a *probans* and a *probandum* in the abstract, has been noted before, most specifically by Jerome Michael and Mortimer Adler: “If the criterion of admissibility were simply relevancy, in the strict logical sense . . . [then] nothing would be inadmissible since, as we have seen, nothing would be irrelevant in that sense.” Jerome Michael & Mortimer Adler, *The Trial of an Issue of Fact: II*, 34 COLUM. L. REV. 1462, 1462 (1934). See the discussion in PETER TILLERS, REVISER’S NOTE, § 37.3, IA WIGMORE ON EVIDENCE 1027-28 (Tillers rev. 1983) [hereinafter TILLERS]. This limitlessness is mainly a product of two things: the first is the likelihood that rational inference is best formally modeled by a structure where a *probans* is related to a *probandum* by the “nomological glue” (to use Professor Tillers’s term) of a covering generality of some sort. The second is the fact that the identity and extent of such covering generalities in the universe is currently unknown (and, given a variety of constraints flowing from the human condition, in principle unknowable), so that the relevance of any *probans* to any *probandum* can never be said with certainty not to exist as a function of a covering generality not currently known. The best illustration of this inescapable problem that I am aware of comes from Professor Callen (discussing it in the context of “conditional relevance”):

There are some situations in which our limited knowledge and cognitive resources make relevancy of evidence conditional on information about additional facts—regardless of whether we have a doctrine called conditional relevancy. Suppose that D is accused of committing homicide by shooting. No bullet has been recovered, nor did police find any trace of one at the scene of the crime other than the wound. Evidence is offered that D used a number of extremely cold substances in his laboratory research. On its face, that evidence would be irrelevant to most people. That is, it seems unlikely that there is any connection between murder by shooting, absence of a bullet, and experience with extremely cold substances such as liquid nitrogen. If, on the

The alternative notion of relevance takes into account not only the information being proffered as relevant to some other claimed fact, but also the characteristics of the processor that will mediate between the initial information and the asserted inference.<sup>15</sup>

Here we need to consider what we mean by “information.” Information is something that interacts with a decisionmaker (processor), broadly defined, which increases the rational warrant for some decision or group of decisions over potential rivals. Again, in approaching the concept of information in this way, I am emphasizing that the status of a stimulus as “information” is not inherent solely in the stimulus. It is dependent upon the way the stimulus interacts with the decisionmaker. Thus, whether a stimulus counts as information is a characterization of its interaction with and effect on a decisionmaker. No decisionmaker, no information, although things in the world that are stimuli that potentially could affect some decisionmaker under conditions not now prevailing might be called “potential” information.<sup>16</sup> Not only does the status of something as information depend on its interaction with a decisionmaker, it must interact in a specified

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other hand, there were reason to believe that (i) one could shape some such frozen gas to form a bullet, (ii) fire it from an air gun causing a fatal wound, after which (iii) it would sublimate, then that would make D's access to such substances relevant. Admitting all proffered evidence on the theory that some fact making it relevant might turn up would be incredibly wasteful.

Callen, *supra*, at 1278-79.

<sup>15</sup> The Federal Rules of Evidence move all processor considerations to Rule 403, which I believe leaves almost nothing for Rule 401 to do on its own, at least if applied as drafted. I am not the first to make this observation. See TILLERS, *supra* note 14, at § 37.2. (“[T]here are very few cases in which the exclusion of evidence can be explained on the ground of irrelevance alone. This ironic result is the product of the constricted exclusionary force of the legal principle of relevancy that arises from the assumption that the only legally irrelevant evidence is that evidence that also happens to be ‘logically’ irrelevant.” *Id.* at 1021.)

<sup>16</sup> This definition of information proper, as distinguished from “potential information,” was first suggested, *sub nom.* “actual relevance” and “potential relevance” in 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, 431-35 (1998). It differs from the definition of “information” used in communication theory, where information is defined so broadly as to include both what is here referred to as information proper, and also what is referred to as “potential information.” See Warren Weaver, “Recent Contributions to the Mathematical Theory of Communication,” in CLAUDE SHANNON & WARREN WEAVER, *THE MATHEMATICAL THEORY OF COMMUNICATION* (1949): “The word *information* in this theory is used in a special sense that must not be confused with its ordinary usage. In particular *information* must not be confused with meaning.” *Id.* at 8.

way. To count as information, it must both affect a decision, and affect it in an accuracy-improving way.

By accuracy-improving, I mean that the stimulus must reliably be the kind of stimulus that improves the likelihood of the correspondence of a decision with the characteristics of the exterior world (again, we are limiting ourselves to decisions about facts, or to the fact component of more complex fact-value decisions). By defining information in this way I realize that I am making some fundamental commitments: first, to some version of a theory of knowledge that has both probabilistic and correspondence aspects; and second, to the proposition that whether a stimulus is information depends both, and as much, on the state of the decisionmaker as on the state of the stimulus. I will not attempt a full-scale defense of the first here, since I think that such an approach to knowledge is inherent in most contexts (for instance, legal contexts) to which I will apply the approach. The second requires both more unpacking of its implications, and more defense.

One of the implications of a Laplacian determinist account would be that, from the perspective of a being that knew all the details of what was taken (by Laplace) to be a fully specified formal system (and perhaps more), there is no information in the sense I have defined it. As previously noted, every stimulus entails immediate complete knowledge of all other details of the system at all possible times past and present. I will not burden the reader with a rehearsal of the many problems of adopting this view as one that defines the nature of some ultimate physical reality.<sup>17</sup> But the mental experiment entailed in considering this view results in one important point. “Decisions” about states of the world can only exist and be “informed” by “information” exactly because we live in a world of imperfect knowledge where virtually everything must be approached based on a probabilistic evaluation of the interaction of stimuli we receive acting upon the current states of our neural processors (that is, our reactions to those stimuli, conscious, semi-conscious or unconscious).

Something that is information in regard to a particular issue is relevant to that issue. Something that is not information is not relevant. If something is information it is therefore evidence in the core sense, that is, it will affect the

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<sup>17</sup> See *supra* note 9.

processor (decisionmaker) in a way that is a net benefit to probabilistically better results, based on a pertinent evaluation of the information (about which more later) Therefore, whether something is relevant to a decision can only be determined by knowledge or assumption concerning the characteristics of that which is proffered (something claimed to be “evidence,” i.e. relevant information) and the characteristics of the decisionmaker, and the interrelationship between the two.

Consider this: a dog is caught on a ledge. He is skittish. He may perform an act injurious to himself. Does this dog make a decision when he moves? Assuming the answer is in some sense yes, what stimulus could I give him that would count as information relevant to his decision? Words in English explaining the effects of falls from heights, or the value of remaining calm, or the safest route off the ledge? If not, then this illustrates the difference between potentially and usably relevant information,<sup>18</sup> and how the two are a function of both the stimulus and the state of the putative decisionmaker.<sup>19</sup>

So something is usably (as opposed to potentially) relevant information to a decision (that is, only then can it be counted as information at all) only in regard to the characteristics of the processor—is it the kind of information that raises the likelihood of decisions that conform to exterior empirical reality? I am not here making any claim about what the characteristics of an ideal processor might be.<sup>20</sup> The

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<sup>18</sup> Or, one might say more accurately, between stimuli that are candidates to be considered information under different conditions than those currently prevailing, and those that actually *are* information.

<sup>19</sup> But if I hold out a steak to lure the dog off the ledge, have I in any sense given him information that informs his decision about the problem of the ledge? Whatever drives are behind his action, and however we might move away from purely behavioral accounts to hypothesize an internal processing that might count as a decision about the steak, his response would not seem, at least at first blush, to represent a solution to the problem of deciding about ledge choices (except perhaps by assuming some connection between approaching humans holding steak and something counting as general trust).

<sup>20</sup> Well, only very weak claims. It would seem that a stimulus that caused a response that induced an action for reasons unrelated to the pending problem, as might be the case in the dog example in note 19 *supra*, would not count as information even though it caused something that might be labeled a decision that resolved the problem. The steak resolved the problem, but not by providing an answer to an inquiry. Beyond that, as Professor Tillers has warned us for years, it is incumbent on us not to confuse our (current) models of ideal “rational” decision (which in themselves may turn out to be less than ideal) with the way humans process information or make optimal decisions about facts. See TILLERS, *supra* note 14, at 1017; see also Peter Tillers, *Are There Universal Principles or Forms of Evidential Inference? Of Inference Networks and Onto-Epistemology*, in JOHN JACKSON, MAXIMO LANGER & PETER TILLERS, EDS., *CRIME, PROCEDURE AND EVIDENCE IN A COMPARATIVE AND INTERNATIONAL CONTEXT: ESSAYS*

processor that counts is the processor we are ultimately stuck with, that is, humans en gros. So if humans do not conform to an ideal processor, being just what they are and representing the range that they do in terms of the range of neural processor space and speed, prior experiences and heuristics, etc., then rules of admission (and a fortiori, rules of exclusion) must be fashioned with the best available information about these characteristics in mind, and more such information should be developed and considered for the improvement of *that* process of decision.

Nothing I have said thus far is necessarily particularly novel, of course.<sup>21</sup> It is consistent with general notions

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IN HONOR OF MIRJAN DAMASKA (2008). This is not to say that anything goes, or that human mental processors can be neither criticized nor trained to be more accurate in evaluation, but only that our natural modes, appropriately disciplined, may have epistemic advantages over currently available theoretical models. See Callen, *supra* note 14, at 1258-78. It seems to me that Daniel Dennett is right to say that whatever thinking (especially inferential thinking) is, it is virtually certain to be some sort of computational process—not one mimicking our current notions of ideal computation perhaps, but rather one that maximizes the trade-off between computational accuracy and efficiency through the use of modules, heuristics, and hierarchical selection of preliminary results. See generally DANIEL C. DENNETT, CONSCIOUSNESS EXPLAINED (1991), particularly ch. 9, “The Architecture of the Human Mind,” at 253-82. It seems also very likely that some of its heuristics are hard-wired, some come more-or-less default wired subject to revision, while others really are the product of experience repeated and internalized. These processes provide the generalities necessary to make sense out of case-specific evidence, see WILLIAM TWINING, RETHINKING EVIDENCE: EXPLORATORY ESSAYS 332-40 (2d ed. 2006), and create the implied reference classes that make the problem of relevance not a purely logical exercise even after the elimination of the god view. See generally Ronald J. Allen & Michael S. Pardo, *The Problem of Mathematical Models of Evidence*, 36 J. LEGAL STUD. 107 (2007).

It also seems reasonably clear that some of our processing structures, heuristic, analogical and story-influenced as they appear to be, work well under some conditions and less well under others, leading us predictably astray, for instance, in attempting to play three-card monte. See D. Michael Risinger & Jeffrey L. Loop, *Three Card Monte, Monty Hall, Modus Operandi and “Offender Profiling”: Some Lessons of Modern Cognitive Science for the Law of Evidence*, 24 CARDOZO L. REV. 193, 193-210 (2002). I am inclined to evolutionary explanations for this state of affairs, but this is controversial and unnecessary to the present paper. At any rate, our evidence rules and practices should attempt to understand these conditions and take them into account.

<sup>21</sup> Indeed, it resonates closely with many of the points made (in the context of a discussion of “conditional relevancy”) in Craig Callen’s fine article, *Conditional Relevancy and Constrained Resources*, *supra* note 14. Consider, also, the following from Professor Allen, discussing the limitations of a pure Bayesian account of proof at trial:

Whereas under the unconditional probability assumption there are too many possible accounts of reality, under the conditioned-on-trial-evidence assumption there are too few—none actually. There are none because this possibility suffers from an infinite regress of a different sort from the unconditional probability assumption. The regress here comes from the fact that evidence does not announce its own implications, those implications emerge from the effort of human contemplation.

concerning the implications of naturalized epistemology in the Goldman vein<sup>22</sup> applied to evidence law to be found, most specifically, in Ronald Allen and Brian Leiter's important article in the Virginia Law Review in 2001,<sup>23</sup> though I was also moving in something of a similar direction myself somewhat earlier.<sup>24</sup>

Allen and Leiter adopt the position that proper rulemaking in a jury system requires the rulemaker to take into account both "the epistemic frailties of jurors, and the epistemic limits of rule-appliers [the "gatekeepers"], namely, judges."<sup>25</sup> And later in the article they assert that the main question to be asked in regard to any rule of inclusion or exclusion is "an essentially *empirical* question: Does this rule of inclusion or exclusion *in fact* increase the likelihood that factfinders, given what they are actually like, will achieve knowledge about disputed matters of fact?"<sup>26</sup> They also appear to adopt the primacy of information derived from formal empirical studies as the main appropriate source of information about those epistemic frailties, rejecting "rootless theorizing" as too "a priori."<sup>27</sup> However, it seems to me that their approach to the results of such studies, and to other sources of relevant knowledge on the advisability of rules and

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Ronald J. Allen, *Factual Ambiguity and a Theory of Evidence*, 88 NW. U. L. REV. 604, 613-14 (1994). This emphasis on the "effort of human contemplation," developed at various later points in the article, *see, e.g., id.* at 619-20, appears to be the same as an emphasis, for purposes of relevance analysis, on the state of the humans doing the contemplation, i.e., the factfinder(s).

<sup>22</sup> *See generally* ALVIN I. GOLDMAN, *EPISTEMOLOGY AND COGNITION* (1986).

<sup>23</sup> Ronald J. Allen & Brian Leiter, *Naturalized Epistemology and the Law of Evidence*, 87 VA. L. REV. 1491, 1493-1503 (2001); *see also* Brian Leiter, *The Epistemology of Admissibility: Why Even Good Philosophy of Science Would Not Make for Good Philosophy of Evidence*, 1997 BYU L. REV. 803, 814-15 (1997).

<sup>24</sup> *See* D. Michael Risinger, *supra* note 16, at 403, 431-46 ("The Relevance of the Irrelevant") (drawing the distinction between potential and usable relevance):

[Federal Rule of Evidence 401] declares evidence relevant if it has "any tendency to make the existence of a fact more or less probable than it would be without the evidence" without suggesting a referent to the trier of fact's rational capacities to derive or process the information. It emphasizes the content of the code independent of the characteristics of the decoder.

*Id.* at 433 n.79; *see also* D. Michael Risinger, *Preliminary Thoughts on a Functional Taxonomy of Expertise for the Post-Kumho World*, 31 SETON HALL L. REV. 508, 518-20 (2000).

<sup>25</sup> Allen and Leiter, *supra* note 23, at 1502 (quoting Leiter, *supra* note 23, at 814-15).

<sup>26</sup> *Id.* at 1537.

<sup>27</sup> *Id.* at 1521-26.

rule changes, is so cautious that it just about rules out a “naturalized” reform agenda.

The main tool Allen and Leiter use to arrive at this position is the “external validity” play, although they don’t use that label. Whenever formal data are derived from experimental or quasi-experimental studies, even of the best designed sorts, there is always an issue of how far the results can be generalized to other universes of phenomena beyond the exact set studied.<sup>28</sup> This question is perhaps trivial in physics, because of well-warranted assumptions of fungibility, but as such fungibility assumptions become less and less tenable, external validity concerns rise, and when we get to issues of human behavior, these concerns are at their highest. Allen and Leiter rightly recognize that there is always a question in generalizing from behavior under simulated test conditions to behavior under real world conditions, and that this may be especially true when attempting to generalize to behavior under the very unusual conditions presented by the context of a jury trial. This can be seen as laudable cautious skepticism, and I must say that as to each individual proposition considered, I can view it that way myself. However, globally, I can’t escape the feeling that they have set the bar too high. In regard to the reform implications of the demeanor studies, they accept the conclusions of Professor Wellborn that these studies do not yet compel any specific changes in the current way we do business.<sup>29</sup> They then turn to two other areas, probabilistic evidence and character evidence, which they say “cry out for reform and/or additional research.”<sup>30</sup> But in the end, after looking at the condition of the empirical record and examining it through their external validity lens, no suggestions for possible reform are forthcoming.<sup>31</sup>

Now I concede that I am probably being a bit cranky about this. The line between proper circumspection about

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<sup>28</sup> The *locus classicus* for the consideration of the problem (and the source of the term) is the work of Donald T. Campbell. The most recent version of this work is to be found in WILLIAM R. SHADISH, THOMAS D. COOK & DONALD T. CAMPBELL, EXPERIMENTAL AND QUASI-EXPERIMENTAL DESIGNS FOR GENERALIZED CAUSAL INFERENCE 83-93 (2002). Reflections on external validity issues in legal contexts can be found in 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, 25-28 (2003) and D. Michael Risinger, *Innocents Convicted: An Empirically Justified Factual Wrongful Conviction Rate*, 97 J. CRIM. L. & CRIMINOLOGY 761, 782-88 (2007).

<sup>29</sup> Allen & Leiter, *supra* note 23 at 1540-42.

<sup>30</sup> *Id.* at 1542.

<sup>31</sup> *Id.* at 1545, 1549.

external validity and unreasonable status quo conservatism is difficult and hardly self-defining. But I come to this writing somewhat bent by watching the likes of Professor Ebbe Ebbesen play what I consider to be a radically skeptical version of the external validity card to aid various law enforcement status quo conservatives in resisting needed eyewitness identification reforms.<sup>32</sup>

In my view, what is needed for proper “naturalized reform” of the law is a combination of formal empirical data and critical common sense which can together form the basis for wise choices. Common sense in this context refers both to the sense of the world that humans obtain through the process of lived experience, and to processes of critical evaluation available in ordinary reflection and discourse that can be brought to bear on both the products of the laboratory and the less formal products of the laboratory of life.<sup>33</sup> It is commonly

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<sup>32</sup> Professor Ebbesen is a social psychologist who teaches at the University of California at San Diego. For a long time he has been one of the main prosecution witnesses called in litigation across the country to resist the admissibility of testimony of eyewitness researchers on the weaknesses of eyewitness identification testimony under various conditions. He has also been the go-to guy for providing academic support for law enforcement resistance to changing the way that eyewitness identification procedures are conducted and presented in court. *See, e.g.*, United States v. Hines, 55 F. Supp. 2d 62 (D. Mass. 1999); People v. Smith, 784 N.Y.S.2d 923 (N.Y. Sup. Ct. 2004); People v. LeGrand, 747 N.Y.S.2d 733 (N.Y. Sup. Ct. 2002). He seems to have been the main design consultant (if it can be called a design) for the Illinois eyewitness study, the results of which were the basis of the infamous Mecklenberg Report. For a full examination of the many weaknesses of the Mecklenberg Report, see generally Daniel Schacter et al., *Policy Forum: Studying Eyewitness Identifications in the Field*, 32 LAW & HUM. BEHAV. 3 (2007). This evaluation was the product of a panel assembled by John Jay College of Criminal Justice. The members of the panel were Daniel Schacter, Professor of Psychology, Harvard University; Robyn Dawes, Queenan Distinguished University Professor, Carnegie Mellon University, Fellow, American Statistical Association; Henry L. Roediger III, James S. McDonnell Distinguished University Professor at Washington University, former President, Association for Psychological Science; Larry L. Jacoby, Professor at Washington University; Daniel Kahneman, Professor of Psychology, Princeton University, 2002 Nobel Laureate in Economics; Richard Lempert, Distinguished Professor, University of Michigan School of Law, and Division Director for the Social and Economic Sciences at the National Science Foundation, 2002-2006; Robert Rosenthal, Distinguished Professor at University of California, Riverside, and Pierce Professor of Psychology emeritus, Harvard University, Co-Chair Task Force on Statistical Inference, American Psychological Association. For another evaluation of the Mecklenberg report, together with a description of the kind of reform proposals regularly opposed by Prof. Ebbesen, see generally Richard A. Wise, Kirsten A. Dauphinais, and Martin A. Safer, *A Tripartite Solution to Eyewitness Error*, 97 J. CRIM. L. & CRIMINOLOGY 807 (2007).

<sup>33</sup> What I am embracing is a version of what C.S. Peirce referred to as “critical common-sensism.” *See* Christopher Hookway, *Critical Common-Sensism and Skepticism*, 24 NOUS 397 (1990). I am aware of the sizable literature on the notion of common sense and its characteristics, strengths and weaknesses, although I must admit that I have only scratched its surface. A good set of references, although concededly now perhaps a bit dated, appears in Barry Smith, *Formal Ontology*,

observed that common-sense inquiry and scientific inquiry are not different in kind,<sup>34</sup> and so it would hardly be surprising if a program of naturalization would supplement formal data with common-sense evaluation, since for most issues of interest for purposes of the law, definitive formal data either cannot be developed because of limitations on human research, or else they must await programs of research stretching into the far reaches of the future. Unless we supplement them with common sense, we seem doomed to embrace the status quo indefinitely.

In embracing a common sense component to a program of naturalization, I am of course not really disagreeing with either Professor Allen or Professor Leiter, since they have both had positive things to say in the past about the role of common sense in things legal and evidential.<sup>35</sup> So where might a

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*Common Sense and Cognitive Science*, 43 INT'L J. OF HUMAN-COMPUTER STUD. 641, 663-66 (1995); see also LYND FORGUSON, COMMON SENSE (1989).

<sup>34</sup> See generally SUSAN HAACK, DEFENDING SCIENCE—WITHIN REASON (2003), especially ch. 4, "The Long Arm of Common Sense."

<sup>35</sup> Consider this from Prof. Leiter:

I find a certain type of pragmatism attractive—indeed, unavoidable—but it is both more modest and more radical than the apology for fuzziness that masquerades as pragmatism in the law journals. This pragmatism is a relative of the type one finds in philosophers like Carnap and Quine, and that has entered the philosophical lexicon in the metaphor of "Neurath's boat." The radicalism of this pragmatism resides in its recognition that the only possible criteria for the acceptance of epistemic norms—norms about what to believe—are pragmatic: we must simply accept the epistemic norms that work for us—that help us predict sensory experience, that allow us to manipulate and control the environment successfully, that enable us to "cope." Pragmatic criteria are, at the limit, the only possible criteria for the acceptance of epistemic norms precisely because we can't defend our choice of any particular epistemic norm on epistemic grounds ad infinitum. At some point, we must reach an epistemic norm for which the best we can say is, "it works."

But which norms actually work for us? Take an example: "Don't believe in a hypothesis that figures in a non-consilient explanation of experience" is a norm for belief—call it the "consilience" norm. A non-consilient explanation is one that posits an explanans—the thing that does the explaining—that seems too narrowly tailored to the explanandum—the event to be explained. Here's how this consilience norm works in our lives. Suppose while sitting at home, all the lights in the house suddenly go out at the very same moment. What fact about the world explains this?

Explanatory hypothesis number 1:

Conspiring leprechauns have simultaneously thrown all the light switches in the house.

By contrast, explanatory hypothesis number 2 proposes that:

combination of formal data and common sense insight take us? Well, for one thing, I think that it would carry us toward supporting most of the reforms in eyewitness procedures that have been suggested by Gary Wells and others, perhaps along something like the following lines:

1. There are a larger number of erroneous convictions of factually innocent defendants than many believed or were willing to admit until recently. (This is supported both by data and by an examination of the statements concerning the rarity

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There has been a general power failure, i.e., electrical current has stopped entering the house.

Both explanatory hypotheses suppose an ontology: mischievous leprechauns on the one hand; electricity, wires, and currents on the other. But the appeal to leprechauns is non-consilient: it seems a gratuitous ontological posit, precisely because supposing that leprechauns exist doesn't help explain anything else. Their existence doesn't explain our observations—we haven't seen any—nor does it help explain the restoration of power—we neither need to “exterminate” the leprechauns in order to retain power, nor do we even need to turn on all the light switches they are hypothesized to have flipped. By contrast, assuming the existence of electrical currents proves a very fruitful ontological posit: it not only cues us to the appropriate steps to take to restore power in the house, but it helps explain a range of ordinary phenomena, like why the television goes off when unplugged from the socket. Since the consilience norm favors the electricity ontology over the leprechaun ontology, and since the former works better than the latter, it appears that a good reason to accept the consilience norm is because of its practical cash-value.

Indeed, the consilience norm—and its other relatives in a scientific epistemology—have worked very well for us humans: they helped depopulate our ontology of leprechauns and gods and ethers, and they are foundational norms in scientific practice, a practice that sends the planes into the sky, keeps the food from spoiling in the refrigerator, and alleviates human suffering through modern medicine. From a philosophical standpoint, what bears special notice is that the epistemic norms of common sense and the epistemic norms of science are simply on a continuum.

Brian Leiter, *Rethinking Legal Realism: Toward a Naturalized Jurisprudence*, 76 TEX. L. REV. 267, 306-08 (1997) (citations omitted).

And this from Professor Allen:

There is plenty of work to be done figuring out how people reason, and particularly how they reason about legal affairs, even if we do not pursue these matters with the equivalent of highly general, top-down scientific theories or the tools of postmodern French literary theory. However, even if the fun quotient does go down, the significance quotient may go up. As the sociologist Lindenberg said: “Common sense finds its way into a body of law if it has a strong influence on social relations; central to all of these is the body of law governing evidence . . . . The body of law governing evidence may be the strongest bastion against sudden assaults on common sense.” I would add that resisting sudden assaults on common sense may be one of the most important guarantors of the continuing progression of civilization.

Ronald J. Allen, *Common Sense, Rationality and the Legal Process*, 22 CARDOZO L. REV. 1417, 1430-31 (2001) (citations omitted).

of such events over time, which I guess is another form of data.<sup>36</sup>)

2. Laboratory data suggests that humans are vulnerable to a variety of influences that lead to erroneous selection of innocent persons as the perpetrators of crime in a non-trivial number of cases, generally involving stranger-on-stranger identifications.<sup>37</sup> This result is not particularly surprising from a critical common-sense perspective.

3. Data from other studies indicate that humans tend to over-value eyewitness identification,<sup>38</sup> especially if confidently given, even though confidence is not necessarily a good predictor of accuracy under many conditions.<sup>39</sup> This result also does not appear to be surprising from a critical common sense perspective.

4. Data from other sources (examination of the records of DNA exonerations) indicates that erroneous eyewitness identification is the single most common factor involved in such cases.<sup>40</sup> This is also not particularly surprising.

5. Data from laboratory studies point to ways of conducting criminal investigations involving eyewitness

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<sup>36</sup> See generally Risinger, *supra* note 28, at 765-68 *et passim*.

<sup>37</sup> The literature on eyewitness identification research and its results is vast. A good starting point is Gary L. Wells, *Eyewitness Identification: Systemic Reforms*, 2006 WIS. L. REV. 615 (2006).

<sup>38</sup> See generally R.C.L. Lindsay, *Expectations of Eyewitness Performance: Jurors' Verdicts Do Not Follow from Their Beliefs*, in ROSS ET AL., ADULT EYEWITNESS TESTIMONY (1994).

<sup>39</sup> *Id.*; see also, e.g., Siegfried L. Sporer, *Choosing, Confidence and Accuracy: A Meta-Analysis of the Confidence-Accuracy Relation in Eyewitness Studies*, 118 PSYCHOL. BULL. 315 (1995).

<sup>40</sup> BARRY SCHECK, PETER NEUFELD & JIM DWYER, ACTUAL INNOCENCE (2000) (app. 2, tbl. 2, providing an analysis of 62 DNA exoneration cases showing inaccurate eyewitness identifications in 84% of the cases); Michael J. Saks & Jonathan J. Koehler, *The Coming Paradigm Shift in Forensic Identification Science*, 309 SCIENCE 892 (2005) (analysis of 86 DNA exoneration cases showing inaccurate eyewitness identifications in 71% of the cases); Brandon L. Garrett, *Judging Innocence*, 108 COLUM. L. REV. 55, 78 (2008) (analysis of 200 DNA exonerations showing inaccurate eyewitness identifications in 79% of the cases). The exact implications of these statistics are not clear and must be approached with caution. As Roger Park has pointed out, in a set of cases proved by DNA to be factually wrong, and made up largely of stranger rape cases, the statistic could hardly be otherwise, and taken by itself it is weak evidence that eyewitness identifications are especially unreliable. See Roger C. Park, *Eyewitness Identification: Expert Witnesses Are Not the Only Solution*, 2 LAW, PROBABILITY & RISK 305, 305-06 (2003). This is of course another variation of the "denominator problem." Without a reference class in which both the number of accurate and inaccurate eyewitness identifications is known, it is not possible to derive a rate of inaccuracy. However, the DNA data are hardly inconsistent with the general claim that eyewitness identifications are surprisingly unreliable, a claim that predates DNA exonerations significantly. See WILLIAM JAMES, THE PRINCIPLES OF PSYCHOLOGY 516 (1890), Great Books Edition (1952).

identifications that significantly reduce the likelihood of erroneous identifications of innocent suspects.<sup>41</sup> Some of these suggestions are, when examined in a critical common sense fashion, virtually cost free both as to monetary costs and costs in lost identifications of the guilty that are at all epistemically defensible to begin with. In such circumstances, such reforms should be undertaken.<sup>42</sup>

Let me expand on the latter point. What I am referring to is the adoption of a requirement that all pre-trial identification procedures (photo-spreads and corporeal line-ups) be administered by someone who does not know which person in the array is the suspect and which is a filler, that is, the so-called “double blind”<sup>43</sup> administration of the identification procedure. While it is possible to argue that other proposed reforms (such as sequential viewing to reduce selection by “relative judgment”) may have a cost in reducing some epistemically warranted accurate identifications, such an effect is not possible in regard to the masking of administrators. No one has yet come up with an argument that plausibly suggests how it could be that identifications which result solely from the administrator cueing, whether conscious or unconscious, and which would not be made by the witness independent of this variable, have any epistemic justification at

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<sup>41</sup> See Wells, *supra* note 37.

<sup>42</sup> The presentation in the text should not be read to mean that I do not think that other aspects of the reform proposals should not be adopted. I selected the double blind aspect as the easiest to use as a clear illustration. Beyond that, for instance, I believe that a strong case can be made for adopting sequential presentation, even though the loss of selections which results from a sequential presentation can be more easily argued to represent the loss of a certain percentage of epistemically justified “accurate” identifications of true perpetrators. The set of identifications lost at the margin between simultaneous presentation procedures and sequential procedures is not large, and is likely to be rich in non-perpetrator selections, or false positives. The ratio of lost true positives to lost false identifications seems likely to be small enough to count as an acceptable cost for the reduction in innocents convicted under virtually any justifiable approach to such a “reform ratio.” See the discussion in Risinger, *supra* note 28, at 796-97.

<sup>43</sup> This terminology is adopted by virtue of an analogy to “double blind” study design in various research contexts. In a double blind study, the test subjects do not know if the “treatment” they are subjected to is the actual test variable or a placebo (single blind) and the people interacting with the test subjects in the administration of the test do not know either (double blind). The term “double blind” in the eyewitness context is a bit out of kilter, since the notion of the original blind (the fact that the witness does not know specifically which person is the actual suspect) is entailed in the notion of a line-up style procedure (whether photo or corporeal) to begin with, so it seems in some ways that the term “blind administration” would be more natural in capturing the proposed reform, but “double blind administration” has become fairly standard in the literature.

all. To so argue is akin to arguing that we would be justified in retaining and not reforming a coin-flipping process in making selections from line-ups, because otherwise we would lose the one in X number of identifications that was coincidentally accurate. And all logistical and cost objections to blind administration have easy technological responses that render the objections trivial at best.<sup>44</sup> So a combination of formal data about both the human circumstances that generate misleading evidence for use and trial, and juror inability to properly discount such misleading evidence once it reaches them, together with common sense evaluation of objections to reform, should lead to both mandated pre-trial procedures, and rules of exclusion<sup>45</sup> to enforce the use of those procedures, all based on “naturalized reform” principles.

I could go on giving examples, but I won't. In any case, I hope to have gone some way toward establishing that only by utilizing both formal data and critical common sense can a naturalized approach to rules of exclusion (and the proof process more generally) be of use in improving the product of adjudication.

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<sup>44</sup> See Letter of John J. Farmer, Jr., Attorney General of New Jersey, transmitting new statewide line-up identification guidelines to all New Jersey law enforcement agencies 2 (April 18, 2001), <http://www.state.nj.us/lps/dcj/agguide/photoid.pdf> (requiring blind administration where practicable, and recommending use of “[t]echnological tools, such as computer programs that can run photo lineups and record witness identification independent of the presence of an investigator”).

<sup>45</sup> A reader might object that I had gotten away from the specific subject of exclusionary rules by using an example of reform up-stream from the trial. However, I have intentionally done this, for a number of reasons. First, in my opinion, if partisan adversary presentation and argument at the trial can be argued to add epistemic strength to the results of our trial system, the major epistemic weaknesses of our current adversary arrangements are the result of party control of the investigation and development of information for trial. Party interests being what they are, every opportunity for advantageous selection, distortion and massage is likely to be taken. The most pressing needs for reform are at this stage, to insure that information is both complete and as undistorted and uncorrupted as possible. Once we determine what processes should be mandated to this end, then rules of exclusion at trial (evidence rules *stricti juris*) must then be put in place to protect the requirement of the mandated pre-trial processes—proper manifestations of the best kind of best evidence principle embraced by Professor Nance. See Dale A. Nance, *The Best Evidence Principle*, 73 IOWA L. REV. 227 (1988) for Professor Nance's classic revitalization of the “best evidence” concept.