## ARTICLES

### THE INCOHERENCE OF EVIDENCE LAW

#### G. Alexander Nunn\*

What is the purpose of evidence law? The answer might seem intuitive. Evidence law exists, of course, to foster verdict accuracy, legitimacy, and efficiency. But these kindred aims often come into conflict. Policy tradeoffs are inescapable in evidence law, meaning that an evidentiary regime must clarify how its normative objectives cohere. Do accuracy, legitimacy, and efficiency work together on equal footing, such that the goal of a code is to maximize each objective to the extent possible? Or does one of evidence law's aims take precedence over the rest? And if one goal takes priority, what is the role of the subordinate policy objectives?

These questions loom over all of evidence law. They establish order for an evidentiary regime and serve as the North Star for its substantive contents. Yet these are the very questions that the Federal Rules of Evidence simply ignore. The code fails to elucidate a normative equilibrium among its policy pursuits. And the resulting incoherence has predictable costs. The Federal Rules emphasize verdict accuracy with one set of rules, only to undermine accuracy with another. The code prioritizes legitimacy at certain junctures, but risks substantial illegitimacy elsewhere. The Federal Rules increasingly prove empirically unsound and culturally problematic, yet garner no urgent response from rule makers. Taken together, this collective incoherence has caused the Federal Rules to chronically underachieve their policy goals.

This Article therefore seeks to remedy evidence law's faulty conceptual foundation. It introduces two optimization frameworks that bring order to evidence law, cohering our evidentiary regime's policy objectives and bringing existential clarity to the field. Even beyond those theoretical benefits, the optimization models also provide a roadmap for extensive tangible improvements. The models leave no stone unturned as they

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channel evidence law to its optimum, excising underperforming rules and aligning the Federal Rules with modern cultural norms and scientific understandings. And ultimately, that substantial reform is both the product, and the promise, of a coherent evidentiary regime.

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### INTRODUCTION

Evidence law needs repair. The Federal Rules of Evidence have dominated the evidentiary landscape for the past half century. And yet, by modern standards, the code's pages are brimming with provisions that prove empirically unsound or culturally problematic.<sup>1</sup>

Consider, first, the folk psychology that pervades the Federal Rules of Evidence.<sup>2</sup> Scientific studies have so thoroughly vitiated the empirical justification for many evidentiary rules that prominent judges have implored rule makers to "beg[i]n paying attention to such studies." The Federal Rules purport to safeguard the reliability of evidence at trial, and yet fail to address the junk science contained within the code's own pages. But that's only half the problem. Outdated normative claims equally pervade evidence law. The Federal Rules, for instance, suggest that individuals with felony convictions are, inherently, habitual liars.<sup>4</sup> The Federal Rules shield, rather than excise, prejudicial animus in the jury deliberation room.<sup>5</sup> The Federal Rules even go so far as to provide greater protection for liability insurance companies than certain criminal defendants.<sup>6</sup> And that's just the tip of the iceberg.

How has evidence law fallen prey to decrepitude? To be sure, part of our evidentiary regime's present dilemma is due to institutional lethargy. Amending the Federal Rules of Evidence is an enormously difficult task. Rather than ushering serious reform measures through the gauntlet, rule makers have instead grown complacent, content with the Federal Rules' general acceptance notwithstanding the code's many shortcomings.<sup>7</sup>

<sup>1</sup> G. Alexander Nunn, *The Living Rules of Evidence*, 170 U. PA. L. REV. 937, 941 (2022) ("Although evidence law has stagnated over the last half century, the world around it has continued to evolve.").

<sup>3</sup> See id.

<sup>4</sup> See Teree E. Foster, Rule 609(a) in the Civil Context: A Recommendation for Reform, 57 FORDHAM L. REV. 1, 5 (1988) ("Rule 609 is the product of the law's long-standing and dogmatic assumptions that criminal convictions reflect character, and that character determines veracity.").

<sup>5</sup> See Taariq Lewis, Note, Peña-Rodriguez v. Colorado and the Racial Animus Exception to the No-Impeachment Rule: Extending an Exception to Suspect Classes That Experience Pervasive Bias in the Jury System, 72 FLA. L. REV. 1353, 1374 (2020) (arguing that Rule 606(b) enables anti-LGBTQ bias).

<sup>6</sup> *Compare* FED. R. EVID. 411 (protecting liability insurance companies), *with* FED. R. EVID. 413 (allowing for the admission of propensity evidence against criminal defendants accused of certain sexual assaults).

<sup>7</sup> See Michael Teter, Acts of Emotion: Analyzing Congressional Involvement in the Federal Rules of Evidence, 58 CATH. U. L. REV. 153, 160 (2008).

Yet evidence law's problems run deeper than mere institutional inaction. Much of the dilapidation that's visible in the Federal Rules is not solely the product of oversight. The code's numerous perplexing provisions are also symptomatic of a much deeper ill. At the root of evidence law's current troubles is, in a literal sense, an existential crisis; an inability to provide a coherent answer to a seemingly simple question—what is the purpose of evidence law?

The quick temptation is to insist that this is an easy question, at least at a general level of abstraction. Evidence law is, of course, about discovering truth. Or perhaps its aim is to ensure fair, just proceedings. More cynically, perhaps evidence law's true purpose is simply to set expectations and streamline trials. Or maybe still, the purpose of evidence law is an amalgamation of these disparate policy goals. In fact, in line with that latter possibility, Federal Rule of Evidence 102 suggests that the Federal Rules "should be construed so as to administer every proceeding fairly, eliminate unjustifiable expense and delay, and promote the development of evidence law, to the end of ascertaining the truth and securing a just determination."

But Rule 102 raises more questions than it answers. Expressing a nominal commitment to the concurrent maximization of accuracy, legitimacy, and efficiency makes for a Pollyannaish ideal, but the reality of evidence law demands more. After all, normative tradeoffs are inevitable and inescapable in any evidentiary regime. Privileges, for example, trade accuracy for legitimacy; they hide immensely probative information but reap benefits in the form of procedural fairness and the protection of valued relationships. Jury secrecy risks undermining the legitimacy of trials and the efficacy of fact-finding, but aids efficiency by providing an air of finality to jury decisionmaking. A permissive threshold for relevance improves procedural justice by affording parties substantial leeway when crafting a case, but it does so at the expense of more streamlined, expedient proceedings.

Taken together, then, evidence law is rife with junctures that demand a normative hierarchy. In outlining the purpose of evidence law, it is insufficient to merely present a facile laundry list of policy goals. Rather, identifying the purpose of evidence law requires pinpointing

<sup>8</sup> FED. R. EVID. 102.

<sup>9</sup> See Richard A. Posner, An Economic Approach to the Law of Evidence, 51 STAN. L. REV. 1477, 1485 (1999) (noting that evidence law "is engaged in making tradeoffs"); see also Jon O. Newman, Rethinking Fairness: Perspectives on the Litigation Process, 94 YALE L.J. 1643, 1647–50 (1985).

<sup>10</sup> See FED. R. EVID. 501 (enshrining ironclad common-law privileges).

<sup>11</sup> See FED. R. EVID. 606(b) (generally shielding jury deliberations from operative effect in the courtroom).

<sup>12</sup> See FED. R. EVID. 401 (establishing a permissive threshold for relevant evidence).

precisely how the different objectives underlying our evidentiary regime *cohere*. Do accuracy, legitimacy, and efficiency truly work together on equal footing, such that the goal of evidence law is to maximize each policy goal to the extent possible? Or, alternatively, does one of evidence law's normative objectives—such as verdict accuracy or procedural legitimacy—take precedence over the others? But if one normative goal is prioritized, how should we conceptualize the role of the subordinate policy aims?

These questions are far more than mere academic fancy. They establish order for our evidentiary regime and serve as the North Star for its substantive contents. As the pages below demonstrate, an evidentiary code that seeks to jointly maximize accuracy, legitimacy, and efficiency would contain many provisions that might be omitted entirely from a code that more forcefully prioritizes the search for truth. So too would a code centrally focused on procedural justice depart radically from a regime that chiefly aims to minimize costs. In a real sense, then, determining evidence law's normative equilibrium sets the course for the entire field.

But when presented with the responsibility of defining its existential foundation, the Federal Rules of Evidence stand silent. Rule 102 fails to provide any indication of the intended coherence among the Federal Rules' commitment to accuracy, legitimacy, and efficiency. And absent that North Star, it's no wonder the Federal Rules have become lost at sea. The Federal Rules emphasize verdict accuracy over efficiency with one set of rules, yet focus on efficiency over accuracy with another. They prioritize procedural legitimacy at certain junctures, but then turn around and undercut legitimacy elsewhere.<sup>13</sup>

What's more, given the absence of a coherent vision for evidence law, rule makers have met the Federal Rules' growing dilapidation with apathy rather than the desire to vindicate a normative ideal. Consider, for instance, all the fruitless policy tradeoffs that remain entrenched in the code. Contemporary studies have revealed that the hearsay exceptions contained within Rules 803(1), 803(2), and 804(b)(2) undercut accuracy and yield no normative recompense in return.<sup>14</sup> Rule 609

<sup>13</sup> Compare, e.g., FED. R. EVID. 501 (prioritizing procedural legitimacy by providing robust protection for privileged communications), with FED. R. EVID. 609 (undercutting procedural legitimacy by disadvantaging criminal defendants through impeachment via prior criminal convictions).

<sup>14</sup> See, e.g., 2 MCCORMICK ON EVIDENCE § 272, at 366 (Kenneth S. Broun ed., 7th ed. 2013); Douglas D. McFarland, Present Sense Impressions Cannot Live in the Past, 28 FLA. ST. U. L. REV. 907, 918 (2001) ("[S]ocial science demonstrates that liars fabricate lies with amazing rapidity . . . ."); Aviva Orenstein, Her Last Words: Dying Declarations and Modern Confrontation Jurisprudence, 2010 U. ILL. L. REV. 1411, 1413 (describing Rule 804(b)(2)'s dying declaration exception as the "laughing stock of hearsay exceptions").

delegitimizes trials while neither aiding the search for truth nor streamlining proceedings. <sup>15</sup> Rule 702's *Daubert* doctrine hoists unnecessary inefficiencies on judges while failing to most effectively safeguard the accuracy of scientific evidence. <sup>16</sup> Put simply, the incoherence among the Federal Rules' policy pursuits has led evidence law into suboptimality. With no investment in a clear policy hierarchy, normative ineffectuality ensues.

The path ahead for evidence law thus demands a more robust existential framework. After all, it's easy enough to declare that the Federal Rules of Evidence should be *better*; it's another thing entirely to actually define what "better" means. Why do the Federal Rules of Evidence exist? How do the policy goals of modern evidence law cohere?

Responding to these questions is, contrary to intuition, no simple task. Identifying evidence law's normative equilibrium requires careful and complex balancing that deftly calibrates the relationship among evidentiary policy goals. Nonetheless, out of the fray, two frameworks that offer robust conceptualizations of evidence law's policy hierarchy rise to the fore.

The first is grounded in the text of the Federal Rules of Evidence. Perhaps it is indeed the case—as Rule 102 seems to imply—that the purpose of modern evidence law is to jointly maximize accuracy, legitimacy, and efficiency. As noted, however, the full attainment of each policy goal will prove impossible due to inescapable policy tradeoffs demanded by evidentiary rules. Evidence law must therefore find an allocation of rules that concurrently maximizes its three objectives—accuracy, legitimacy, and efficiency—despite policy sacrifices that, to some degree, are inevitable.

Framed in this manner, evidence law is recognizable as a function of multiobjective optimization.<sup>17</sup> In its algorithmic form, multiobjective optimization seeks to maximize the total output of conflicting objectives. When objectives cannot each achieve their individual optima concurrently due to compulsory tradeoffs, multiobjective optimization finds an allocation of resources that will nonetheless ensure that each objective reaches its maximum *attainable* value (after accounting for

<sup>15</sup> See Montré D. Carodine, Keeping It Real: Reforming the "Untried Conviction" Impeachment Rule, 69 MD. L. REV. 501, 576 (2010) ("Rule 609 [is] one of the most fundamentally unfair and repugnant rules applicable in criminal cases.").

<sup>16</sup> See Edward K. Cheng, The Consensus Rule: A New Approach to Scientific Evidence, 75 VAND. L. REV. 407, 422 (2022) ("Suboptimal decisionmaking is the chief vice of the Daubert framework.").

<sup>17</sup> For background on multiobjective optimization, see generally Kalyanmoy Deb, Karthik Sindhya & Jussi Hakanen, *Multi-objective Optimization, in* DECISION SCIENCES: THEORY AND PRACTICE 145 (Raghu Nandan Sengupta et al. eds., 2017). *See also* Nyoman Gunantara, *A Review of Multi-objective Optimization: Methods and Its Applications*, 5 COGENT ENG'G, no. 1, 2018.

the necessary compromises). Multiobjective optimization's application to evidence law is therefore intuitive, offering clear insights into how evidence law should cohere its competing normative goals of accuracy, legitimacy, and efficiency. Because evidence law's policy pursuits are subject to compulsory tradeoffs, evidence law reaches coherence by identifying a set of rules that ascribes accuracy, legitimacy, and efficiency their maximum *attainable* values after inevitable compromises.

Though theoretical, identifying evidence law's normative coherence in multiobjective optimization reaps practical, substantive benefits. When reconciled with our existing evidence code, multiobjective optimization immediately reveals many provisions as woefully suboptimal and ripe for reform.

Consider, for instance, Federal Rule of Evidence 609, which regulates the impeachment of witnesses via prior criminal convictions. <sup>19</sup> Put more bluntly, Rule 609 allows a party to introduce a witness's prior crimes to suggest that they are pathologically untruthful. Rule 609 is thus problematic on many fronts. Its logic is flawed. <sup>20</sup> It distorts fact-finding. <sup>21</sup> And, perhaps most importantly, it forces a criminal defendant into an unjust catch-22. Imagine, for example, that a defendant chooses to testify at trial. Rule 609 tempts fact finders to ascribe a "prior offender penalty" to that defendant and improperly use her previous convictions for a character rationale, thereby significantly undermining the defendant's chances at exoneration. <sup>22</sup> Imagine instead, then, that the defendant chooses not to testify so as to avoid Rule 609's prior-offender penalty. Unfortunately, her crucible is not yet over. Rather, the defendant runs headlong into a "silence penalty," under which fact finders infer guilt from a defendant's unwillingness to

<sup>18</sup> See Carlos A. Coello Coello, Multi-objective Optimization, in HANDBOOK OF HEURISTICS 177, 179 (Rafael Martí et al. eds., 2018).

<sup>19</sup> FED. R. EVID. 609.

<sup>20</sup> See Foster, *supra* note 4, at 5 ("Rule 609 is the product of the law's long-standing and dogmatic assumptions that criminal convictions reflect character, and that character determines veracity.").

<sup>21</sup> See Daniel D. Blinka, The Modern Trial and Evidence Law: Has the "Rambling Altercation" Become a Pedantic Joust?, 47 GA. L. REV. 665, 688 (2013) (describing how trial lawyers use Rule 609 to share "unsavory facts" about an opposing party with the jury); Montré D. Carodine, "The Mis-characterization of the Negro": A Race Critique of the Prior Conviction Impeachment Rule, 84 IND. L.J. 521, 527 (2009) ("Rule 609 is indeed problematic for defendants.... [A] recent empirical study establish[ed] that a substantial number of convicted felons, later determined to have been actually innocent, decided not to testify at their trials for fear that they would be impeached with their prior convictions.").

<sup>22</sup> See Jeffrey Bellin, *The Silence Penalty*, 103 IOWA L. REV. 395, 400 (2018) (describing the "prior offender penalty" as "universally dreaded").

testify.<sup>23</sup> In fact, "a defendant who remains silent at trial suffers about the same damage to his acquittal prospects as a defendant who testifies and is 'impeached' with a prior conviction."<sup>24</sup>

In normative terms, then, Rule 609 undermines the fairness and legitimacy of criminal trials. Defendants are faced with an untenable dilemma; regardless of their decision to testify *vel non*, Rule 609 diminishes the likelihood of their exoneration. Under the multiobjective optimization model, such a sacrifice to legitimacy would only prove coherent if compensated by outsized accuracy or efficiency gains. Rule 609, however, provides no recompense; it neither improves fact-finding nor streamlines trials. Multiobjective optimization thus reveals Rule 609 to be a suboptimal provision warranting excision or significant recalibration. And Rule 609 is far from anomalous. Multiobjective optimization reveals numerous Federal Rules of Evidence to be the product of similar fruitless policy tradeoffs, thereby meriting reform.

As hinted above, however, the multiobjective optimization model is not the only sensible framework for cohering evidence law's policy goals. To be sure, the multiobjective model flows descriptively from Rule 102, which presents accuracy, legitimacy, and efficiency on level pegging as the coextensive aims of the Federal Rules of Evidence. But is that presentation correct? Are accuracy, legitimacy, and efficiency truly equivalent goals of evidence law? Or, at its core, does evidence law instead prioritize one of these policy objectives above the rest?

Intriguingly, both historical tradition and modern reasoning point in a direction that differs from the text of Rule 102. Under these lenses, evidence law's existential purpose is not the tripartite, concurrent maximization of accuracy, legitimacy, and efficiency. Rather, truth is at the heart of evidence law.<sup>25</sup> For centuries, evidence law has existed to help fact finders determine *what happened* in a particular case; facilitating verdict accuracy, rather than legitimacy or efficiency, is evidence law's raison d'être.<sup>26</sup>

<sup>23</sup> See id. at 399 ("The customary defense tactic of remaining silent to avoid impeachment (or other harms) creates a new risk . . . the 'silence penalty.'"); Ehud Guttel & Doron Teichman, Criminal Sanctions in the Defense of the Innocent, 110 MICH. L. REV. 597, 620 (2012) ("[E]vidence shows that fact finders exhibit a bias against silent defendants.").

<sup>24</sup> Bellin, *supra* note 22, at 400.

<sup>25</sup> See, e.g., Michael L. Seigel, A Pragmatic Critique of Modern Evidence Scholarship, 88 Nw. U. L. Rev. 995, 1011 (1994) ("[P]ursuit of accuracy is undoubtedly the 'single dominant value' or 'grand theory' underlying the vast majority of evidence doctrine."); see also infra subsection II.B.1.

<sup>26</sup> See WILLIAM TWINING, The Rationalist Tradition of Evidence Scholarship, in RETHINKING EVIDENCE: EXPLORATORY ESSAYS 32, 71–73 (1990) (identifying evidence law's accuracy primacy in evidence titans from "Gilbert through Bentham, Thayer and Wigmore to Cross and McCormick," id. at 71).

That revelation, if accepted, gives rise to a competing model for cohering evidence law's policy aims. The second framework is, of course, rooted in the primacy of verdict accuracy. Identifying truth seeking as central, however, is not itself an existential model for evidence law.<sup>27</sup> After all, "[o]ne who is absolutely committed to the process of ascertaining and testing the truth, and who would thus shun any concession of the search for truth to the production of acceptable verdicts, may find that he does so at the expense of other important values."<sup>28</sup> Legitimacy and efficiency *are* important goals of evidence law, and even if they ultimately prove subordinate to truth seeking, both policy objectives must play some important role in evidence law's normative framework.<sup>29</sup> A second model for evidence law must therefore cohere accuracy primacy on one hand and concessions to legitimacy and efficiency on the other.

How would that work? Within this second framework, legitimacy and efficiency are best seen as systematic constraints rather than coequal objectives. That is, evidence law's search for truth is its primary focus, but that focus is not omnipotent. Instead, facilitation of verdict accuracy must occur within certain boundaries—boundaries that safeguard essential levels of procedural fairness and cost minimization. Thus, legitimacy and efficiency constrain the pursuit of truth, delineating the outer limits of evidence law's ability to relentlessly pursue accurate fact-finding. Framed in this manner, evidence law is again recognizable, not as an application of multiobjective optimization, but now as a function of constrained optimization. Unlike multiobjective optimization, which seeks to simultaneously achieve a maximum among many conflicting objectives, constrained optimization typically seeks to maximize a single objective within the "feasible region" permitted by hard restraints.<sup>30</sup> Consider the difference again in evidentiary terms. Whereas the multiobjective optimization model seeks to concurrently maximize the accuracy, legitimacy, and efficiency of evidence law, the constrained optimization framework solely seeks to maximize accuracy, yet makes concessions to the detriment of truth

<sup>27</sup> See Seigel, supra note 25, at 1007 ("No one doubts that the truth-finding process must at some point be limited by the practical need to resolve legal disputes with reasonable dispatch.").

<sup>28</sup> Charles Nesson, The Evidence or the Event? On Judicial Proof and the Acceptability of Verdicts, 98 HARV. L. REV. 1357, 1392 (1985).

<sup>29</sup> See, e.g., 1 STEPHEN A. SALTZBURG & MICHAEL M. MARTIN, FEDERAL RULES OF EVIDENCE MANUAL 12 (5th ed. 1990) (identifying evidence law's goal as the pursuit of "speedy, inexpensive and fair trials designed to reach the truth").

<sup>30</sup> See generally EVOLUTIONARY CONSTRAINED OPTIMIZATION (Rituparna Datta & Kalyanmoy Deb eds., 2015) (providing background on constrained optimization); DIMITRI P. BERTSEKAS, CONSTRAINED OPTIMIZATION AND LAGRANGE MULTIPLIER METHODS 1–6 (1982) (same).

seeking when absolutely necessary to ensure essential levels of trial legitimacy or efficiency.

Evidence law's constrained optimization model is therefore a vehicle for a substantial overhaul of the Federal Rules of Evidence. The framework would not only adopt the same reforms targeted by multi-objective optimization so as to remedy poor normative tradeoffs, it would also go further. Indeed, if evidence law is truly committed to discovering truth, our evidentiary regime requires fundamental reorientation.

As just one of many examples discussed in the pages below, consider how cohering evidence law's normative objectives as a function of constrained optimization raises questions about the continued prominence of the hearsay rule itself. Despite constituting a mainstay of our evidentiary regime, recent studies demonstrate that the accuracy-based justification for the hearsay rule—ensuring the reliability of out-of-court statements<sup>31</sup>—is largely illusory. Prospective jurors weigh hearsay appropriately, suitably discounting hearsay statements given unanswered questions about a declarant's testimonial capacities.<sup>32</sup> Thus, if anything, the hearsay rule undermines accuracy, as it often prevents jurors from hearing important out-of-court statements that pose no substantial risk of distorting fact-finding. That said, however, studies demonstrate that the hearsay rule does carry legitimacy benefits, as the public typically continues to view it as somewhat unfair to admit hearsay into the courtroom.<sup>33</sup> Couched in terms of multiobjective optimization, then, it is unlikely that the hearsay rule would require reform. Although the hearsay rule fails to materially improve fact-finding at trial, it offers legitimacy gains as recompense. Multiobjective optimization provides leeway for those exact policy exchanges.

The calculus changes substantially, however, in the constrained optimization framework. The inquiry no longer focuses on the simultaneous pursuit of accuracy, legitimacy, and efficiency; instead,

<sup>31</sup> See generally Edmund M. Morgan, Hearsay Dangers and the Application of the Hearsay Concept, 62 HARV. L. REV. 177 (1948) (insisting that the hearsay rule is necessary to ensure reliability); Laurence H. Tribe, Triangulating Hearsay, 87 HARV. L. REV. 957 (1974) (conceptualizing problems associated with hearsay in a "[t]estimonial [t]riangle," id. at 958).

<sup>32</sup> See Justin Sevier, Testing Tribe's Triangle: Juries, Hearsay, and Psychological Distance, 103 GEO. L.J. 879, 893–96 (2015) (surveying numerous empirical studies that undermine the notion that juries overvalue hearsay evidence); see also Margaret Bull Kovera, Roger C. Park & Steven D. Penrod, Jurors' Perceptions of Eyewitness and Hearsay Evidence, 76 MINN. L. REV. 703, 703 (1992); Peter Miene, Roger C. Park & Eugene Borgida, Juror Decision Making and the Evaluation of Hearsay Evidence, 76 MINN. L. REV. 683, 685, 691 (1992).

<sup>33</sup> See Justin Sevier, Popularizing Hearsay, 104 GEO. L.J. 643, 688 (2016) ("A procedural justice rationale for the hearsay rule will have the support of the general public because dignity and fairness concerns—and not decisional accuracy concerns—are what the vast majority of the public believes the hearsay rule is designed to protect.").

constrained optimization prioritizes truth seeking, simply asking whether accuracy gains stemming from reforming the hearsay rule could be captured without causing the legitimacy of evidence law to fall below an essential level. And, framed in that manner, the hearsay rule would clearly be ripe for reform. For example, given jurors' ability to appropriately weigh hearsay, the constrained optimization model would push toward a presumption of admissibility for out-of-court statements. At the same time, so as to safeguard an essential level of legitimacy, a narrower exclusionary rule could remain solely for those hearsay statements that pose the greatest risk of unfairness or untrust-worthiness. The resulting reformed hearsay rule—which ultimately proves similar in operation to Rule  $403^{34}$ —would better calibrate our evidentiary regime toward the pursuit of truth while also safeguarding a baseline of legitimacy.

Ultimately, both the multiobjective and constrained optimization models bring order to evidence law, cohering our evidentiary regime's normative goals and bringing existential clarity to the field in the process. But even beyond those theoretical benefits, the optimization models provide a roadmap for the most extensive reform to the Federal Rules of Evidence since their enactment a half century ago. Alongside the examples detailed above, many other evidentiary rules fall within the reformatory scope of the models. As this Article will demonstrate, the models would also encourage recalibration of Rule 404(b)'s end-run around the propensity rule, Rule 407's exclusion of subsequent remedial measures, Rule 413's and Rule 414's ill-advised exceptions to the character evidence prohibition, Rule 501's enshrinement of ironclad privileges, Rule 606(b)'s no-impeachment rule, and Rule 702's Daubert doctrine, among many other reforms.<sup>35</sup> No stone would be left unturned. And that's both the product, and the promise, of normative coherence.

This Article proceeds in three Parts. Part I diagnoses evidence law's current dilemma. Rule 102 purports to identify accuracy, legitimacy, and efficiency as coextensive goals of the Federal Rules of Evidence. Yet Rule 102 fails to explain how these different policy interests cohere in the face of inescapable tradeoffs demanded by evidentiary rules. And the failure to fully delineate evidence law's normative hierarchy has had deleterious effects. Part I demonstrates that, as a direct result of evidence law's existential incoherence, evidence law chronically underachieves its policy goals.

Part II therefore seeks to remedy evidence law's troubles by providing two models for cohering evidence law's normative aims. The

<sup>34</sup> See infra subsection II.B.2.

<sup>35</sup> See infra Part III, subsection I.B.1.

first, multiobjective optimization, pushes evidence law toward maximizing attainable levels of accuracy, legitimacy, and efficiency after accounting for inescapable normative compromises. The second model, constrained optimization, more forcefully prioritizes truth seeking, yielding the pursuit of accurate verdicts only when concessions prove absolutely necessary for trial legitimacy or efficiency.

Part III then explores the immense reform potential of the optimization models. Both exhibit significant utility in immediately rooting out suboptimal rules that sacrifice policy objectives with no material recompense. That is, the multiobjective and constrained optimization models both provide a roadmap for excising evidence law's most woefully problematic provisions. Part III also demonstrates, however, that the constrained optimization model goes further. If evidence law is, at heart, about discovering truth, the constrained optimization model would propose a material reorientation of evidence law toward a truth-centered regime.

#### I. EVIDENCE LAW'S FAULTY FOUNDATION

Evidence law's normative uncertainty is perhaps an easy problem to overlook. After all, within our positivist, codified evidentiary regime, theoretical questions about evidence law's existential coherence do not typically take center stage. Courts and litigants instead fixate solely on the operative provisions of the Federal Rules of Evidence, the dictates that govern the flow of information in the courtroom.<sup>36</sup> Amid that narrow focus, Rule 102 is, by contrast, merely an accourtement; problems with evidence law's conceptual foundation are a nebulous afterthought.

Yet to ignore a faulty foundation is folly. All of the operative provisions in the Federal Rules of Evidence sit atop the normative equilibrium for evidence law articulated in Rule 102. And they sit precariously. The incoherence that permeates evidence law's existential foundation directly contributes to a host of emergent problems, including a patchwork of evidentiary doctrines that increasingly prove normatively ineffectual and an even larger contingent of rules that grow empirically unsound or culturally problematic.<sup>37</sup> Put simply, evidence law's foundational problems are giving rise to stress fractures—and those stress fractures, left unchecked, will only grow.

This Part therefore embarks on the pathway to reform by offering a full diagnosis of evidence law's conceptual shortcomings. The pages

<sup>36</sup> See Daniel J. Capra & Liesa L. Richter, *Poetry in Motion: The Federal Rules of Evidence and Forward Progress as an Imperative*, 99 B.U. L. REV. 1873, 1931 (2019) ("[T]he Rules are geared toward the litigants and judges who rely on them day in and day out.").

<sup>37</sup> See infra Section II.B.

below detail the incoherence of modern evidence law and uncover the consequences that result. Ultimately, after accomplishing those tasks, this Part points toward a clear resolution. Remedying our evidentiary regime's current ills requires a reassessment of its most fundamental question—what is the purpose of evidence law?

# A. An Incoherence of Purpose

Defining evidence law's purpose is a deceptively complex task. In fact, at first glance, it seems a truly elementary endeavor.

Consider, for instance, how simple intuition provides a number of credible explanations for the purpose of our evidentiary regime. For one, evidence law exists to help fact finders determine *what happened* in a particular case.<sup>38</sup> Left to their own devices, fact finders would struggle with this responsibility, potentially falling prey to any number of epistemological shortcomings and biases.<sup>39</sup> For example, fact finders might yield to the strong temptation to engage in character or propensity reasoning.<sup>40</sup> They might fixate on some extraneous, prejudicial information at trial, decoupling their verdict from the salient evidence at issue.<sup>41</sup> They might overly defer to an out-of-court declarant whose testimonial capacities have gone wholly unchecked.<sup>42</sup> Evidence law prevents these pitfalls by stepping into the breach and regulating the flow of information in the courtroom, thereby facilitating the discovery of truth.

Of course, intuition points to additional explanations as well. Most notably, evidence law also plays a role in legitimizing proceedings, ensuring trials are considered fair and just by all relevant stakeholders.<sup>43</sup> History is full of infamous tribunals that enjoy notoriety due to their procedural inadequacies; the Star Chamber, for example, has

<sup>38</sup> David P. Leonard, *The Use of Character to Prove Conduct: Rationality and Catharsis in the Law of Evidence*, 58 U. COLO. L. REV. 1, 4 (1987) ("If people were stopped on the street corner and asked to explain the purpose of a trial, they would probably say, 'to find out what happened.' That answer... forms the backbone of the Federal Rules of Evidence.").

<sup>39</sup> See Griffin v. United States, 336 U.S. 704, 721 (1949) (Murphy, J., dissenting) (noting that "[m]any rules of exclusion are" grounded in "distrust of the jury's ability to evaluate . . . evidence"); see also James Bradley Thayer, A Preliminary Treatise on Evidence at the Common Law 2 (Boston, Little, Brown, & Co. 1898).

<sup>40</sup> Miguel A. Méndez, Essay, *The Law of Evidence and the Search for a Stable Personality*, 45 EMORY L.J. 221, 224 (1996) ("[A] major concern is that character evidence will tempt jurors to apply a theory of culpability that is based on character rather than on the commission of a punishable act.").

<sup>41</sup> See, e.g., State v. Bocharski, 22 P.3d 43, 49 (Ariz. 2001) (en banc).

<sup>42</sup> See Tribe, supra note 31, at 958.

<sup>43</sup> See Thomas M. Mengler, The Theory of Discretion in the Federal Rules of Evidence, 74 IOWA L. REV. 413, 438 (1989).

become synonymous with adjudicatory injustice.<sup>44</sup> Evidence law therefore serves as a bulwark against trial illegitimacy. That is, the purpose of evidence law is to delineate the informational boundaries of what can fairly come to bear against a defendant in the courtroom. By regulating certain types of evidence, the juridical system ensures procedural fairness for litigants and, by extension, safeguards external societal benefits.

Though perhaps less obvious, intuition dictates that evidence law also serves an efficiency function.<sup>45</sup> Were there no restrictions limiting the material that a party could present in the courtroom, the potential for abuse would be substantial. A party could run up the cost of proceedings simply by presenting needlessly cumulative evidence, thereby dragging trials on for weeks.<sup>46</sup> Likewise, a party might seek to disrupt proceedings by surprising her opponent with previously concealed material evidence.<sup>47</sup> Evidence law prevents these excesses, streamlining trials and ensuring the expediency of our adjudicatory system.

Thus, although a more granular examination might further subdivide these policy goals,<sup>48</sup> the intuitive responses above ably show that evidence law exists to bolster accuracy, legitimacy, and efficiency. The tripartite focus accords with instinct and provides a desirable

<sup>44</sup> See United States v. Cojab, 996 F.2d 1404, 1407 (2d Cir. 1993) (noting that deficient adjudication has "had from time immemorial an odious tinge that carries with it a scent of grave injustice reminiscent of the Spanish Inquisition and the English Star Chamber").

<sup>45</sup> See Steven I. Friedland, Fire and Ice: Reframing Emotion and Cognition in the Law, 54 WAKE FOREST L. REV. 1001, 1025 (2019) ("Evidence law seeks to ensure rational, accurate, and efficient outcomes . . . ."); Posner, supra note 9.

<sup>46</sup> See FED. R. EVID. 403 (protecting against the presentation of needlessly cumulative evidence).

<sup>47</sup> See Stephen N. Subrin, Fishing Expeditions Allowed: The Historical Background of the 1938 Federal Discovery Rules, 39 B.C. L. REV. 691, 725–26 (1998) (noting how the prevention of trial surprises improves efficiency).

<sup>48</sup> For example, this Article conceptualizes evidentiary rules aimed at public policy interests, *e.g.*, FED. R. EVID. 407–411, as a subset of evidence law's pursuit of legitimacy, as undermining the public policy goals in the courtroom proves juridically illegitimate. Of course, those substantive public policy goals could conceivably constitute their own normative subcategory, notwithstanding their awkward fit as an existential aim of evidence law. Moreover, Professor Ronald J. Allen's recent scholarship, in particular, expertly demonstrates that a granular examination of evidence law's normative commitments requires fine parsing of and engagement with "complexifying factors that the facile equation of the field of evidence with epistemology neglects." *See* Ronald J. Allen, *New Directions for Evidence Science, Complex Adaptive Systems, and a Possibly Unprovable Hypothesis About Human Flourishing, in* EVIDENTIAL LEGAL REASONING: CROSSING CIVIL LAW AND COMMON LAW TRADITIONS 34, 41, 40–41 (Jordi Ferrer Beltrán & Carmen Vázquez eds., 2022). These include, inter alia, the requirement that an evidence law normatively account for its constitutive role in social policy, as well as practical considerations about evidence law's enforceability in the courtroom. *Id.* at 40–42.

framework for how evidence law can provide a host of valuable policy benefits during adjuration.

It's no surprise, then, that the Federal Rules of Evidence turn the implicit explicit. As mentioned, when defining the purpose of our controlling evidentiary code, Rule 102 merely enshrines intuition, dictating that the Federal Rules "should be construed so as to administer every proceeding fairly, eliminate unjustifiable expense and delay, and promote the development of evidence law, to the end of ascertaining the truth and securing a just determination." Moreover, rule makers clearly felt that the reasoning underlying Rule 102 was obvious to the point of banality, warranting no further explanation. Unlike many rules, which contain Advisory Committee notes that serve as an aid for deciphering the vagaries of an evidentiary restriction, Rule 102's dvisory Committee note contains no substantive clarification or supplement. Rather, Rule 102 was, for rule makers, self-explanatory. No addendum necessary.

But Rule 102—and the instinctive reasoning that underlies it—is facile. Despite its intuitive appeal, Rule 102 proves reductive in its insistence that evidence law exists to concurrently maximize accuracy, legitimacy, and efficiency. Most pressingly, that account ignores the inescapability of normative tradeoffs in any evidentiary code.<sup>50</sup>

But why do normative tradeoffs matter? To be sure, were it possible to craft an evidentiary regime that maximized the likelihood of verdict accuracy, fully legitimized proceedings, and drove costs to an absolute minimum, few would argue against aligning our evidentiary regime's purpose toward the simultaneous achievement of those objectives. In fact, any other course would be nonsensical. Unfortunately, however, the reality of evidence law undercuts that quixotic ideal.<sup>51</sup> The concurrent maximization of accuracy, legitimacy, and efficiency ultimately proves impossible precisely because unavoidable normative tradeoffs force mutually exclusive choices between evidence law's policy focuses.<sup>52</sup>

<sup>49</sup> FED. R. EVID. 102.

<sup>50</sup> See D. Michael Risinger, Searching for Truth in the American Law of Evidence and Proof, 47 GA. L. REV. 801, 803 (2013) (noting that Rule 102 "actually say[s] a lot (not all of it coherent, perhaps)"); Stephen N. Subrin, Procedure, Politics, Prediction, and Professors: A Response to Professors Burbank and Purcell, 156 U. PA. L. REV. 2151, 2152 (2008) (recognizing evidence law's "policy compromises in excluding relevant evidence").

<sup>51</sup> See Bennett Capers, Evidence Without Rules, 94 NOTRE DAME L. REV. 867, 871–72 (2018) ("[T]he common law of evidence was often counterintuitive and incoherent, so much so that in 1948 the Supreme Court called the hodgepodge of evidentiary practices and caselaw a 'grotesque structure.'" (quoting Michelson v. United States, 335 U.S. 469, 486 (1948))).

<sup>52</sup> See Michelson, 335 U.S. at 486 (acknowledging that our evidentiary regime is "full of compromises").

Consider, for example, a staple of evidence law—privileges. Generally stated, an evidentiary privilege is an exclusionary rule that prevents a party from introducing a statement that was made in the course and scope of a protected status relationship.53 Thus, many communications between marital partners, or attorneys and their clients, or doctors and their patients, are wholly excluded from the courtroom.<sup>54</sup> The justification for the ironclad protection of privileges rests in a legitimacy rationale.<sup>55</sup> The weaponization of statements made within the confines of a trust relationship would certainly undermine perceptions of adjudicatory fairness.<sup>56</sup> Moreover, the absence of evidentiary privileges could potentially destabilize those trust relationships altogether.<sup>57</sup> But privileges come at a cost. Often, privileges conceal incredibly probative information.<sup>58</sup> A candid statement made between marital partners or a client and her attorney might constitute the most effective piece of evidence for determining what actually happened in a particular case. Yet privileges forgo that probative evidence in the name of procedural justice and societal good.<sup>59</sup> Privileges therefore constitute one of the starkest policy tradeoffs in evidence law, sacrificing verdict accuracy for greater levels of procedural legitimacy. And this normative tradeoff is inescapable. Were an evidentiary regime not to enshrine privileges, verdict accuracy might increase, but legitimacy would suffer. A policy choice is inevitable.

Another example is found in Rules 408 and 410. Rule 408 dictates, inter alia, that statements made during settlement negotiations are inadmissible at a later trial if offered to impeach a witness or provide insight into the validity of a claim.<sup>60</sup> Rule 410 extends the principle to the criminal context, dictating that statements made during plea

<sup>53</sup> See Edward J. Imwinkelried, The Historical Cycle in the Law of Evidentiary Privileges: Will Instrumentalism Come into Conflict with the Modern Humanistic Theories?, 55 ARK. L. REV. 241, 241–45 (2002).

<sup>54</sup> See, e.g., Gerald G. Ashdown, Editorial Privilege and Freedom of the Press: Herbert v. Lando in Perspective, 51 U. COLO. L. REV. 303, 328 n.108 (1980).

<sup>55</sup> See Developments in the Law—Privileged Communications, 98 HARV. L. REV. 1450, 1500 (1985) [hereinafter Developments in the Law] ("[E]liminating all privileges . . . would probably lower the overall legitimacy . . . of the courts.").

<sup>56</sup> See Edward J. Imwinkelried, Essay, *The New Wigmore: An Essay on Rethinking the Foundation of Evidentiary Privileges*, 83 B.U. L. REV. 315, 317 (2003).

<sup>57</sup> See Susan K. Rushing, Separating the Joint-Defense Doctrine from the Attorney-Client Privilege, 68 Tex. L. Rev. 1273, 1278 (1990).

<sup>58</sup> See Wis. Province of Soc'y of Jesus v. Cassem, 468 F. Supp. 3d 482, 485 (D. Conn. 2020) ("At base, the existence of an evidentiary privilege is in tension with 'the fundamental principle that the public . . . has a right to every man's evidence." (quoting Univ. of Pa. v. EEOC, 493 U.S. 182, 189 (1990))).

<sup>59</sup> See Developments in the Law, supra note 55, at 1633–34 ("Privileges generally deprive litigants and the judicial system of probative evidence . . . .").

<sup>60</sup> See FED. R. EVID. 408.

negotiations are inadmissible against the defendant who participated.<sup>61</sup> In normative terms, then, Rules 408 and 410 are quite clearly grounded in efficiency and legitimacy rationales. Regarding efficiency, the protection of settlement and plea negotiations facilitates the expedient disposition of cases, as parties can engage in open, transparent negotiations without fear of later recourse. 62 Regarding legitimacy, Rules 408 and 410 also safeguard procedural fairness, as they prevent a party from facing a trial penalty for engaging in settlement or plea negotiations in good faith.<sup>63</sup> But Rules 408 and 410 also come at a cost. Of course, immensely probative evidence often comes to light during settlement and plea negotiations, whether it be a party's inadvertent admission or an implicit concession regarding the strength of a party's case. Allowing for the admission of statements made during pretrial negotiations could therefore occasionally improve the accuracy of verdicts.<sup>64</sup> Thus, Rules 408 and 410, too, constitute a juncture requiring stark policy compromises, yielding a moderate potential accuracy gain in exchange for improved procedural efficiency and legitimacy.

So too does Rule 401's permissive definition of relevance constitute a tradeoff between legitimacy and efficiency. Under Rule 401, evidence is relevant—and therefore generally admissible—if it has "any tendency to make a fact more or less probable than it would be without the evidence." Evidence scholars have rightly recognized that "[i]t would be hard to devise a more lenient test of probativeness than Rule 401's 'any tendency' standard." Of course, Rule 401's liberal relevancy standard promises significant legitimacy gains for evidence law, as it affords a party substantial leeway to present her case in the manner she sees fit. At the same time, however, Rule 401 undercuts, to some degree, efficiency. A more exacting relevancy bar could certainly streamline proceedings and simplify the issues presented; for instance, if probativeness was instead defined as having a "strong tendency to make a fact more or less probable," a wide range of relatively

<sup>61</sup> See FED. R. EVID. 410.

<sup>62</sup> See McHann v. Firestone Tire & Rubber Co., 713 F.2d 161, 166 (5th Cir. 1983).

<sup>63</sup> See, e.g., Christopher B. Mueller, "Make Him an Offer He Can't Refuse"—Mezzanatto Waivers as Lynchpin of Prosecutorial Overreach, 82 Mo. L. REV. 1023, 1080 (2017) ("[T]he purpose of Rule 410... is to encourage fairness in the plea bargaining process....").

<sup>64</sup> See United States v. Jim, 839 F. Supp. 2d 1157, 1167 (D.N.M. 2012) ("[R]ule 410 runs counter to a trial's truth-seeking function."), aff'd, 786 F.3d 802 (10th Cir. 2015).

<sup>65</sup> FED. R. EVID. 401 (emphasis added).

<sup>66</sup> GEORGE FISHER, EVIDENCE 23 (3d ed. 2013).

<sup>67</sup> See, e.g., Old Chief v. United States, 519 U.S. 172, 186–89 (1997) (identifying the importance of narrative integrity at trial); United States v. Tribble, 209 F. App'x 332, 340 (4th Cir. 2006) (per curiam); see also Anthony V. Alfieri, Essay, Defending Racial Violence, 95 COLUM. L. REV. 1301, 1304 (1995).

unimportant evidence could be discarded at trial.<sup>68</sup> Thus, once more in Rule 401, we see a clear normative tradeoff.

Stepping back, the examples above are far from anomalous. Instead, inescapable policy tradeoffs pervade evidence law. They're implicit within almost every rule. The intuitive belief—enshrined by Rule 102—that evidence law exists to concurrently maximize accuracy, legitimacy, and efficiency therefore proves far too simplistic.<sup>69</sup> A recounting of evidence law's purposes cannot merely provide a superficial list of policy ideals; instead, it must detail how those policy ideals *cohere* amid unavoidable compromises. Do accuracy, legitimacy, and efficiency work together as coequal objectives, such that the goal of evidence law is to find an allocation of rules that maximizes each to the extent possible? Or, alternatively, does one particular normative ideal—such as the discovery of truth—take precedence in evidence law? If one policy goal is prioritized, however, what role (if any) should the subordinate objectives play in the resulting evidentiary regime?

These are the existential questions that define evidence law. An evidentiary regime that places the pursuits of accuracy, legitimacy, and efficiency on equal footing would contain many provisions that might be omitted entirely from a code that forcefully prioritizes the search for truth. For example, as discussed below in Part III, if verdict accuracy is held out as the core purpose of evidence law, privileges, the character evidence rules, and even the hearsay rule itself could face a dramatic narrowing in scope. Yet each of these rules are mainstays in a regime that adjoins the pursuit of accuracy with an equal emphasis on legitimacy and efficiency. So too would a code that prioritizes adjudicatory legitimacy vary wildly in substance from a regime that primarily pursues efficiency. The former would of course emphasize evidentiary rules, like the hearsay rule, that help foster fair and just proceedings; the latter would prefer provisions, like Rule 606(b)'s no-impeachment rule, that minimize costs and streamline proceedings.<sup>70</sup>

Defining evidence law's normative hierarchy—the coherence among its policy pursuits—is therefore of existential importance. The entire trajectory of evidence law depends on this antecedent foundation. And yet, despite its gravity, it is this responsibility that Rule 102 ignores. Rather than cohering accuracy, legitimacy, and efficiency, Rule 102 avoids a discussion of evidence law's policy ordering

<sup>68</sup> Notably, Rule 403 excludes relevant evidence if its probative value is substantially outweighed, inter alia, by the risk of "undue delay, wasting time, or needlessly presenting cumulative evidence." FED. R. EVID. 403. Given its asymmetrical balancing test, however, Rule 403 only provides an assurance of efficiency in extreme circumstances.

<sup>69</sup> See Fed. R. Evid. 102.

<sup>70</sup> See infra Part III.

entirely.<sup>71</sup> What results is normative incoherence—incoherence that comes at a heavy cost.

## B. The Cost of Incoherence

The Federal Rules of Evidence rest on a faulty existential foundation; they are missing a conceptual North Star to guide our evidentiary regime as it navigates a host of inescapable policy tradeoffs. But, in realist terms, what are the ramifications of that problem? Is the failure to provide a coherent normative hierarchy just a theoretical omission, a harmless oversight that solely reverberates in the academic literature? Or, alternatively, does Rule 102's silence gives rise to practical, substantive consequences?

Without question, Rule 102's failure to define the purpose of evidence law comes at a tangible cost, as without its North Star, our evidentiary code appears, at times, adrift at sea. Most prominently, the incoherence of modern evidence law gives rise to two significant consequences.

The first is predictable. Because Rule 102 offers no guidance for the ordering of the policy goals underlying the Federal Rules of Evidence, normative tradeoffs in our evidentiary code are resolved haphazardly and, often, suboptimally. At times, for instance, the evidentiary regime evinces an outsized focus on efficiency, exhibiting a perilous willingness to substantially undercut both verdict accuracy and trial legitimacy to streamline proceedings. Yet, at other policy junctures, that outsized efficiency focus disappears entirely. So too do the Federal Rules of Evidence invest in fostering procedural fairness with certain rules, only to turn around and significantly undermine trial legitimacy with a different set of provisions. This ad hoc approach to policy tradeoffs in the Federal Rules of Evidence is the direct result of Rule 102's shortcomings. Normative ineffectuality is the result.

But the incoherence of evidence law also contributes to a second, more subtle consequence. When rule makers failed to invest in a coherent vision for evidence law and instead enshrined Rule 102's simplistic policy objectives, they exhibited a degree of an indifference as

<sup>71</sup> See Risinger, supra note 50, at 804 (noting that the advisory committee notes on Rule 102 are "less than enlightening on the intended meaning").

<sup>72</sup> See FED. R. EVID. 606(b) (undermining accuracy and legitimacy, but fostering efficiency, by protecting jury deliberations).

<sup>73</sup> See FED. R. EVID. 501 (evincing no consideration of efficiency principles when enshrining evidentiary privileges).

<sup>74</sup> *Compare* FED. R. EVID. 404 (fostering legitimacy by banning character evidence), with FED. R. EVID. 609 (undermining legitimacy by allowing for the introduction of past crimes).

to whether evidence law would be governed by an overarching normative directive; in turn, given the insignificance that rule makers originally seemed to ascribe Rule 102, there now appears to be no great urgency to vindicate its (superficial) ideals. And so, as new scientific revelations and evolving cultural norms increasingly render the Federal Rules of Evidence outdated and problematic, rule makers exhibit apathy in the face of growing disrepair.

# 1. A Normatively Inconsistent Patchwork of Rules

Somewhat predictably, the incoherence of evidence law gives rise to a haphazard, desultory approach to policy tradeoffs within the Federal Rules of Evidence. As detailed above, establishing a normative hierarchy and a strong, existential foundation for evidence law is not a mere academic exercise; rather, it sets the entire trajectory of our evidentiary regime. An evidence code will vary wildly in its substantive contents depending on the relative emphases afforded accuracy, legitimacy, and efficiency. Yet the Federal Rules of Evidence, possessed of no normative hierarchy, approach policy tradeoffs in an erratic, ad hoc fashion. What results is widespread inconsistency in policy emphases; a patchwork of rules that, collectively, underachieve evidence law's normative potential.

Take Federal Rule of Evidence 606(b). Rule 606(b), often referred to as the "no-impeachment rule," mandates that statements made during jury deliberations are inadmissible if offered to challenge the validity of a verdict or indictment.<sup>76</sup> Put more simply, Rule 606(b) prevents parties from revealing that jurors failed to abide by the jury instructions or engaged in other forms of epistemological misconduct when reaching a verdict.<sup>77</sup> Rule 606(b) thus constitutes one of the many compulsory normative tradeoffs demanded by evidence law. For one, Rule 606(b) imposes a heavy cost on verdict accuracy. By placing a firewall around deliberations, the legal system loses an assurance that the jury engaged in a sound, appropriate decisionmaking methodology.<sup>78</sup> But Rule 606(b) doesn't just undermine accuracy. It also poses a deleterious risk of diminishing the legitimacy of proceedings.<sup>79</sup> Of

<sup>75</sup> See infra Part III.

<sup>76</sup> See FED. R. EVID. 606(b).

<sup>77</sup> See, e.g., United States v. Ewing, 749 F. App'x 317, 322 (6th Cir. 2018) ("A juror's statement suggesting that the jury misunderstood or misapplied instructions or the law is also typically considered internal and therefore subject to Rule 606(b)'s bar.").

<sup>78</sup> See Susan Crump, Jury Misconduct, Jury Interviews, and the Federal Rules of Evidence: Is the Broad Exclusionary Principle of Rule 606(b) Justified?, 66 N.C. L. REV. 509, 521 (1988).

<sup>79</sup> See Ashok Chandran, Color in the "Black Box": Addressing Racism in Juror Deliberations, 5 COLUM. J. RACE & L. 28, 45 (2014) (describing how Rule 606(b) has "delegitimized the courts in the eyes of communities of color").

course, when Rule 606(b) places a firewall around jury deliberations, it does not solely protect faulty jury deliberations; it also shields jury misconduct from view. And the nefarious consequences of that firewall are, unfortunately, predictable. Rule 606(b) shields jurors who decide a case by chance. Rule 606(b) shields jurors who decide a case while drunk and high. Rule 606(b) even shields jurors who have exhibited repulsive prejudicial animus during deliberations. Rule 606(b)

Without question, then, Rule 606(b) carries a high normative price, undermining both verdict accuracy and legitimacy. What policy benefit does our evidentiary regime receive as recompense? Moderate efficiency gains. Rule 606(b) protects the finality of verdicts, as parties are unable to track down jurors, uncover some misconduct that occurred in the deliberation room, and use that misconduct as a vehicle for the relitigation of the case.<sup>83</sup> Instead, given Rule 606(b)'s strong protectionary scope, a jury's verdict is typically final.

But is that a worthwhile tradeoff? In Rule 606(b), our evidentiary regime undercuts both verdict accuracy and legitimacy solely in exchange for the minimization of costs. Only a code that placed an outsized emphasis on efficiency would accept such a trade. And yet, other provisions within the Federal Rules of Evidence refute the possibility that our evidentiary regime possesses an overbearing efficiency focus. That is, the Federal Rules of Evidence do not appear heavily oriented toward efficiency in a manner that would justify Rule 606(b)'s dubious bargain.

Consider again, for instance, an example introduced in the Section above—Rule 401's permissive relevancy threshold is calibrated toward legitimacy, not efficiency. But Rule 401 does not stand alone. Rule 702, too, fails to evince efficiency primacy. Generally stated, Rule 702 governs the admissibility of expert testimony. However, Rule 702—and the *Daubert* doctrine that accompanies it 6—is not grounded in a desire to minimize costs or streamline proceedings. For one, by subjecting expert testimony to the adversarial process rather than top-down inquisitorial regulation, "expert testimony under the Federal Rules of Evidence 'has led to longer trials [and] more expensive

 $<sup>80-</sup>See\ 3$  Christopher B. Mueller & Laird C. Kirkpatrick, Federal Evidence  $\S\ 6:17$  (4th ed. 2023).

<sup>81</sup> See Tanner v. United States, 483 U.S. 107, 122 (1987).

<sup>82</sup> See Lewis, supra note 5, at 1374, 1376–79 (noting that in response to Rule 606(b)'s shield for prejudicial animus in jury deliberations, the Supreme Court has found it "necessary to create a racial bias exception to the no-impeachment rule to ensure that a defendant's Sixth Amendment right to a fair trial is preserved," *id.* at 1355).

<sup>83</sup> See FED. R. EVID. 606(b) advisory committee's notes to 1972 proposed rules.

<sup>84</sup> See supra Section I.A.

<sup>85</sup> See FED. R. EVID. 702.

<sup>86</sup> See Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 592–93 (1993).

litigation."<sup>87</sup> But that's only half the problem. Rule 702 and *Daubert* also create inefficiencies for judges. The *Daubert* doctrine tasks judges with serving as the gatekeepers of scientific evidence in the courtroom, requiring them to assess the validity of scientific techniques underlying an expert's testimony.<sup>88</sup> But judges are, of course, no scientists. Thus, Rule 702 and *Daubert* force judges "to equip themselves with the tools necessary to make... decisions requiring expertise... [by] attend[ing] science education seminars and read[ing] educational materials."<sup>89</sup> Yet, as a prominent evidence scholar has noted, these inefficiencies are wholly avoidable. <sup>90</sup> If the Federal Rules of Evidence were centrally committed to fostering efficiency, for instance, Rule 702 might simply adopt a deferential outsourcing of the regulation of expert evidence to the scientific community itself.<sup>91</sup>

Perhaps the most telling indication of the absence of an overpowering efficiency focus is not found in the composition of any one evidentiary rule, but rather in the complete *silence* of many rules regarding efficiency principles. Were efficiency an immensely important principle, thereby rationalizing Rule 606(b), one would expect the Federal Rules of Evidence to be steeped in reasoning that seeks to minimize costs and streamline proceedings. Yet even a cursory survey of the code indicates that, outside of relative anomalies like Rule 606(b), efficiency does not often take precedence over accuracy or legitimacy principles. Take, for example, the hearsay rule contained in Rules 801 and 802. In the academic literature, there's something of a debate as to whether the hearsay rule is grounded in accuracy or legitimacy principles.<sup>92</sup> Few even attempt to insist, however, that the modern hearsay rule is calibrated toward efficiency.<sup>93</sup> Privileges are similar. As

<sup>87</sup> See Edward V. Di Lello, Note, Fighting Fire with Firefighters: A Proposal for Expert Judges at the Trial Level, 93 Colum. L. Rev. 473, 474 (1993) (alteration in original) (quoting President's Council on Competitiveness, Agenda for Civil Justice Reform in America 4 (1991)).

<sup>88</sup> *E.g.*, Duffee *ex rel*. Thornton v. Murray Ohio Mfg. Co., 91 F.3d 1410, 1411 (10th Cir. 1996) ("*Daubert* requires district judges to act as gatekeepers to ensure that scientific evidence is both relevant and reliable.").

<sup>89</sup> Cheng, supra note 16, at 420.

<sup>90</sup> See, e.g., id. at 410.

<sup>91</sup> Notably, that approach would improve the reliability of expert evidence as well. *See id.* (proposing a "Consensus Rule" pursuant to which, "[w]hen dealing with expert topics, the legal system [does] not ask factfinders the actual substantive questions, but instead . . . reframe[s] its questions to be deferential to the relevant expert community").

<sup>92</sup> See Sevier, supra note 33, at 688 (highlighting a distinction between accuracy-based and legitimacy-based justifications for the hearsay rule).

<sup>93</sup> See Eleanor Swift, A Foundation Fact Approach to Hearsay, 75 CALIF. L. REV. 1339, 1375–76, 1376 n.111 (1987) ("[S]ome commentators have argued that the hearsay rule exists to promote trial efficiency because it is a 'handy tool for excising time-consuming, but usually relatively useless, testimony.' Such a justification of the hearsay rule, however,

discussed above, Rule 501's enshrinement of impermeable privileges bolsters the fairness and legitimacy of trials.<sup>94</sup> If efficiency were at the heart of modern privileges doctrine, one might expect that Rule 501 would contain a provision providing some allowance for piercing of privileges, particularly when privileged evidence would quickly resolve a case. But, in our existing code, efficiency is simply not a factor that comes to bear on privileges.<sup>95</sup>

Ultimately, then, the Federal Rules of Evidence fail to evince a strong efficiency focus that would justify Rule 606(b)'s bad bargain. Rule 606(b) is instead simply a product of normative incoherence, a dubious compromise that results from the absence of a clear existential vision for evidence law that could guide all policy compromises.

But Rule 606(b) doesn't stand alone. Other rules evince similarly dubious normative tradeoffs. Take, for example, Rules 413 and 414. Put generally, Rules 413 and 414 are exceptions to Rule 404(b)'s prohibition of propensity evidence. Typically, under Rule 404(b), a party may not introduce a defendant's past crimes to suggest that the defendant has a proclivity for engaging in a certain type of nefarious behavior.<sup>96</sup> The justification for Rule 404(b) is primarily grounded in legitimacy reasoning. Rather than forcing a defendant to repeatedly face judgment for a prior bad act, Rule 404(b) promises the defendant a "clean slate" at every trial, thereby ensuring that the jury's verdict rests on the salient evidence demonstrating the defendant's guilt vel non for the particular crime at issue.<sup>97</sup> However, despite the role that Rule 404(b) plays in legitimizing trials, rule makers (or, more specifically, Congress) carved out exceptions to Rule 404(b) in Rules 413 and 414.98 Namely, Rule 413 allows a party to introduce evidence of a defendant's prior sexual assaults to suggest a proclivity for those crimes.99 Similarly, Rule 414 allows for the admission of evidence of a defendant's prior abuse of children under a propensity rationale. 100

is like using a cannon to kill a fly." (quoting Henry M. Hart, Jr. & John T. McNaughton, Evidence and Inference in the Law, DÆDALUS, Fall 1958, at 40, 48)).

<sup>94</sup> See supra Section I.A.

<sup>95</sup> See In re Ford Motor Co., 110 F.3d 954, 962 (3d Cir. 1997) (recognizing that an evidentiary privilege "introduces certain inefficiencies into the judicial system"), abrogated by Mohawk Indus., Inc. v. Carpenter, 558 U.S. 100 (2009).

<sup>96</sup> See FED. R. EVID. 404(b).

<sup>97</sup> See Aviva Orenstein, Deviance, Due Process, and the False Promise of Federal Rule of Evidence 403, 90 CORNELL L. REV. 1487, 1490 (2005).

<sup>98</sup> See Fang Bu, Note, Searching for a Better Constitutional Guarantor for FRE 413–415: The Conflict Among Circuits in Applying the FRE 403 Balancing Test and a New Solution, 2016 U. ILL. L. REV. 1905, 1908 ("Congress... enacted FRE 413–415 in 1995 as a reflection of political trends intended to facilitate the conviction of sex offenders.").

<sup>99</sup> See FED. R. EVID. 413.

<sup>100</sup> See FED. R. EVID. 414.

In normative terms, Rules 413 and 414 thus constitute a sacrifice of procedural legitimacy for defendants. Rather than approaching a trial on a level playing field, Rules 413 and 414 require defendants to face an arduous uphill climb to exoneration. That is, the "rules disrupt the basic presumption of innocence by making defendants answer for prior acts in addition to the crime charged." <sup>101</sup>

What, then, is the policy benefit that Rules 413 and 414 receive as compensation for sacrificing legitimacy? The (ostensible) answer is improved assurances of verdict accuracy. Supporters insist that sexual assailants are uniquely recidivistic, such that prior sexual crimes are highly probative of a recurrent criminal act.<sup>102</sup> Unlike other types of generic crimes, defendants who perpetrate odious sexual assaults and abuses exhibit a distinctive "utter baseness" that helps later fact finders determine that the defendant "is morally and temperamentally capable of such activity."<sup>103</sup>

Yet even at the time that Rules 413 and 414 were drafted, scholars recognized that their purported accuracy benefits were dubious. For one, the empirical literature squarely contradicts the notion that Rules 413 and 414 aid accuracy because of sexual crimes' anomalously recidivistic nature. <sup>104</sup> Instead, "there is a substantial body of empirical research that . . . the recidivism rate for sex offenders is actually *lower* than for most other categories of serious crimes. <sup>105</sup> Moreover, the introduction of prior sexual crimes often plays a substantial distorting role at trial, as a jury facing the prospect of exonerating the criminal defendant might instead choose to convict solely "on the basis of their disapproval of his prior crimes, or their hunch that he has committed other crimes for which he was never caught, or their fear of letting him remain on the streets to commit future crimes. <sup>106</sup>

Again, then, Rules 413 and 414 constitute a poor normative tradeoff. Both rules drastically undercut trial legitimacy by unfairly disadvantaging criminal defendants and, as recompense, our evidentiary regime only gains a highly dubious claim of improved verdict

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<sup>101</sup> Orenstein, *supra* note 97, at 1505 (recounting this argument as belonging to critics of Rules 413 and 414); *see also* Margaret C. Livnah, Note, *Branding the Sexual Predator: Constitutional Ramifications of Federal Rules of Evidence 413 Through 415*, 42 CLEV. St. L. REV. 169, 181 (1996).

<sup>102</sup> Orenstein, *supra* note 97, at 1499 (recounting the argument from supporters).

<sup>103</sup> Id.

<sup>104</sup> See Tamara Rice Lave & Aviva Orenstein, Empirical Fallacies of Evidence Law: A Critical Look at the Admission of Prior Sex Crimes, 81 U. CIN. L. REV. 795, 795 (2013) (surveying the empirical literature and finding that Rules 413 and 414 rest "on bogus psychology and false empirical assertions").

<sup>105</sup> James Joseph Duane, The New Federal Rules of Evidence on Prior Acts of Accused Sex Offenders: A Poorly Drafted Version of a Very Bad Idea, 157 F.R.D. 95, 113 (1994).

<sup>106</sup> See id. at 110.

accuracy—a claim of accuracy that, notably, is flatly contradicted by the empirical literature. Even if the empirical justification for Rules 413 and 414 were sound, only an evidentiary regime that placed a tremendous relative weight on verdict accuracy would risk so severely undercutting trial legitimacy for the mere possibility of improved fact-finding.

As with efficiency, however, our evidentiary regime does not currently reflect an outsized commitment to verdict accuracy. For example, as discussed above, Rule 501's enshrinement of ironclad, impermeable privileges evinces a clear prioritization of legitimacy over verdict accuracy—a policy tradeoff that runs directly opposite to the one struck by Rules 413 and 414.

So too does Rule 406's habit doctrine present a similar dynamic. Rule 406 provides another exception to Rule 404(b)'s general prohibition of propensity evidence, allowing for the admission of past acts that demonstrate that a person acted in accordance with a regular, repetitive habit. 107 Unlike the pseudoscience underlying Rules 413 and 414, Rule 406 is *actually* grounded in sound accuracy-based reasoning. That is, while the scientific literature casts doubt on the existence of uniquely high recidivism rates for sexual crimes, it definitively supports the exceptional recurrent nature of habits. 108 "Researchers have found that 'much of everyday action is characterized by [habitual] repetition' and '[m]ost repeated actions are habitual.'" 109 Even simple intuition bears this scientific finding out—if someone regularly and automatically puts on their seatbelt every time they drive their car, there's a high likelihood they'll repeat that action when driving the car at some later point.

Rule 406, though, has an interesting exception. As outlined in the Advisory Committee notes, evidence of intemperance—such as drinking or drug use—typically falls outside the scope of Rule 406,<sup>110</sup> even though the empirical literature unfortunately demonstrates the

<sup>107</sup> See FED. R. EVID. 406.

<sup>108</sup> See, e.g., Kevin S. Marshall, Kathy Luttrell Garcia & Irving Prager, The Habit Evidence Rule and Its Misguided Judicial Legacy: A Statistical and Psychological Primer, 36 LAW & PSYCH. REV. 1, 58–59 (2012); see also Icek Ajzen, Residual Effects of Past on Later Behavior: Habituation and Reasoned Action Perspectives, 6 PERSONALITY & SOC. PSYCH. REV. 107, 119 (2002); David T. Neal, Wendy Wood & Jeffrey M. Quinn, Habits—A Repeat Performance, 15 CURRENT DIRECTIONS PSYCH. SCI. 198, 201–02 (2006); Bas Verplanken & Henk Aarts, Habit, Attitude, and Planned Behaviour: Is Habit an Empty Construct or an Interesting Case of Goal-Directed Automaticity?, 10 Eur. Rev. Soc. PSYCH. 101, 111–12 (1999).

<sup>109</sup> Marshall et al., *supra* note 108, at 58–59 (alterations in original) (footnote omitted) (first quoting Neal et al., *supra* note 108, at 198; and then quoting David L. Ronis, J. Frank Yates & John P. Kirscht, *Attitudes, Decisions, and Habits as Determinants of Repeated Behavior, in* ATTITUDE STRUCTURE AND FUNCTION 213, 223 (Anthony R. Pratkanis et al. eds., 1989)).

<sup>110</sup> See FED. R. EVID. 406 advisory committee's notes to 1972 proposed rules.

regular, repetitive nature of drug and alcohol use amid addiction.<sup>111</sup> Of course, there are good and important reasons for the exclusion of this evidence. The introduction of one's drug or alcohol addiction vitiates a defendant's clean slate at trial and weaponizes what is, at heart, a disease.<sup>112</sup> However, when juxtaposed against the normative tradeoff struck by Rules 413 and 414, Rule 406's exclusion is plainly inconsistent. Both sexual crimes (dubiously) and drug and alcohol use (empirically) are united by their potentially unique recidivistic nature. Yet the Federal Rules of Evidence, lacking a coherent normative foundation, treat the two types of evidence in exactly the *opposite* fashion. As noted, Rules 413 and 414 allow for the admission of sexual crimes, sacrificing legitimacy for (ostensible) accuracy. Yet Rule 406 excludes drug and alcohol use from its scope, sacrificing accuracy gains for legitimacy. Similar junctures for rule makers; opposite normative outcomes.

Stepping back, the examples outlined above are merely demonstrative of an inconsistent patchwork of normative priorities scattered throughout the Federal Rules of Evidence. Rule 102's failure to set out a guiding existential vision for our evidentiary regime leads directly to haphazard, ad hoc policy sacrifices that, when viewed in totality, often prove contradictory and self-defeating. Evidence law's core incoherence breeds widespread inconsistency.

# 2. Apathy in the Face of Dilapidation

The fallout from evidence law's normative incoherence stretches beyond our evidentiary regime's haphazard approach to policy tradeoffs. There is an equally insidious consequence that also radiates from the faulty foundation underlying the Federal Rules of Evidence.

As noted, Rule 102 does not appear to be the product of intensive deliberation. Rather than evincing a sincere commitment toward establishing a robust account of our evidentiary regime's existential basis, Rule 102 simply enshrines intuition. In a single sentence, it proposes the idealistic vision that evidence law should concurrently pursue

<sup>111</sup> See Jennifer E. Watson, Note, When No Place Is Home: Why the Homeless Deserve Suspect Classification, 88 IOWA L. REV. 501, 531 (2003) (noting that studies view "addiction, particularly drug addiction, [as] a chronic and relapsing disease with prolonged effects on the brain" (quoting Carol P. Waldhauser, *Identifying Addiction*, GPSOLO, July/Aug. 2001, at 22, 24)).

<sup>112</sup> See Herbert Fingarette, Addiction and Criminal Responsibility, 84 YALE L.J. 413, 439 (1975).

<sup>113</sup> See FED. R. EVID. 102.

accuracy, legitimacy, and efficiency, yet offers not a hint of insight as to how those policy goals should cohere.<sup>114</sup>

At best, then, Rule 102 is perfunctory. The scant attention afforded Rule 102 gives the impression that the provision—which is supposed to define the very purpose of the Federal Rules of Evidence—was an obligatory afterthought. In fact, Rule 102's concise Advisory Committee note seemingly suggests that rule makers only included Rule 102 to accord the Federal Rules of Evidence with similar codes. <sup>115</sup> For example, the Advisory Committee note states, in full, that Rule 102 simply fills a role akin to "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." <sup>116</sup>

It might prove tempting to dismiss rule makers' lack of emphasis on Rule 102 as an isolated historical error. To be sure, the failure to detail a coherent purpose for evidence led to a series of poor policy tradeoffs in the Federal Rules of Evidence, but the fallout from the incoherence is perhaps contained to those baffling policy compromises within our evidentiary code's original draft. Rule 102's shortcomings are therefore perhaps an error of the past, with relatively little modern significance.

Unfortunately, however, the original apathy toward evidence law's existential foundation reverberates today in an increasingly problematic fashion. The same indifference expressed toward fully *defining* the purpose of evidence law now perpetuates an apathy toward how well evidence law is *achieving* its policy goals. That is, when rule makers initially failed to invest in a coherent vision for evidence law, they exhibited a level of indifference as to whether an overarching normative hierarchy would govern evidence law; that indifference, in turn, now gives rise to apathy as to whether the Federal Rules of Evidence are continually vindicating their (merely superficial) policy goals. And thus, as new scientific revelations and evolving cultural norms increasingly render the Federal Rules anachronistic, our increasingly dilapidated evidentiary code goes unchecked.

Consider, for example, how rule-maker apathy has made room for growing disrepair in the Federal Rules of Evidence. A first clear example is found in Federal Rule of Evidence 803(2), more popularly known as the "excited utterance exception" to the hearsay rule. Rule 803(2) allows an out-of-court statement to bypass the hearsay rule if it concerns "a startling event or condition" and was "made while the

<sup>114</sup> See Risinger, supra note 50, at 804 (noting that the advisory committee notes on Rule 102 are "less than enlightening on the intended meaning").

<sup>115</sup> See FED. R. EVID. 102 advisory committee's notes to 1972 proposed rules.

<sup>116</sup> Id.

declarant was under the stress of excitement that it caused."117 Put simply, if a declarant makes an exclamation while under the fear, strain, or stress caused by a shocking event, Rule 803(2) renders the statement admissible. 118 But Rule 803(2) is grounded in folk psychology, the dubious belief that a declarant experiencing stress or panic is unable to effectively fabricate and, therefore, the statement is more reliable. 119 By modern standards, however, Rule 803(2)'s faulty empirical foundation is practically implicit.<sup>120</sup> The modern scientific literature conclusively establishes that human perception and declaration in a stressed, panicked state is immensely unreliable.<sup>121</sup> Rather than improving fact-finding, then, Rule 803(2) operates as a pathway for unreliable, untested evidence to gain access to the courtroom. And, in normative terms, what does modern evidence law receive in exchange for this tradeoff? Nothing of value. Admitting excited utterances does not legitimate proceedings to any great degree, nor does Rule 803(2) provide efficiency gains relative to a statement's exclusion. Instead, Rule 803(2) is suboptimal and would clearly warrant reform—if modern evidence law were invested in continually vindicating a coherent normative vision.

One need not look far for additional evidentiary rules that modern empirical studies have also undermined. Just consider the excited utterance exception's neighbor. Rule 803(1) creates a hearsay exception for present sense impressions, or statements "describing or explaining an event or condition, made while or immediately after the declarant perceived it." The justification for Rule 803(1) again rests in an empirical claim. Rule makers initially believed that declarants who speak within seconds of an observation will lack the time necessary for material distortion; a present sense impression, therefore, is more trustworthy. Unfortunately, however, the modern scientific

<sup>117</sup> Fed. R. Evid. 803(2).

<sup>118</sup> See id.

<sup>119</sup> See United States v. Tocco, 135 F.3d 116, 127 (2d Cir. 1998) ("The rationale for [Rule 803(2)] is that the excitement of the event limits the declarant's capacity to fabricate a statement and thereby offers some guarantee of its reliability.").

<sup>120</sup> See MCCORMICK ON EVIDENCE, *supra* note 14, § 272, at 366 ("The entire basis for the [excited utterance] exception may... be questioned.").

<sup>121</sup> See id. ("While psychologists would probably concede that excitement minimizes the possibility of reflective self-interest influencing the declarant's statements, they have questioned whether this might be outweighed by the distorting effect of shock and excitement upon the declarant's observation and judgement."); see also Steven Baicker-McKee, The Excited Utterance Paradox, 41 SEATTLE U. L. REV. 111, 131–75 (2017) (explaining that statements made under excitement may still be unreliable).

<sup>122</sup> FED. R. EVID. 803(1).

<sup>123</sup> FED. R. EVID. 803 advisory committee's notes to 1972 proposed rules ("The underlying theory of [Rule 803(1)] is that substantial contemporaneity of event and statement negate the likelihood of deliberate or conscious misrepresentation.").

literature has again vitiated this rationale. Empirical studies demonstrate that declarants can formulate lies in a fraction of a second, contorting a seemingly instantaneous statement to align with some ulterior motive. Rule 803(1) therefore also undermines trials by giving unreliable statements a free pass to admissibility. Were there an institutional commitment to aligning our evidentiary code with a coherent overarching purpose, Rule 803(1) would surely demand reform, as it provides neither legitimacy nor efficiency gains as compensation for its accuracy shortcomings. And yet, Rule 803(1) stands strong.

Still other hearsay exceptions exhibit similar shortcomings. Consider now Rule 804(b)(2)'s exception for dying declarations. 125 During a historic era, the justification for the dying declaration exception was rooted in religious significance—declarants imminently facing death would surely speak true only moments before facing judgment. 126 By modern standards, however, the persuasiveness of that justification wanes. For one, declining religious adherence renders Rule 804(b)(2)'s underlying justification wholly inapplicable to many declarants.<sup>127</sup> In fact, the Advisory Committee notes to Rule 804(b) (2) expressly identify this problem, noting that "the original religious justification for the exception may have lost its conviction for some persons over the years."128 Despite that reality, rule makers nonetheless stand by Rule 804(b)(2), insisting that "it can scarcely be doubted that powerful psychological pressures are present" when a declarant makes a dying declaration.<sup>129</sup> But is that true? The modern scientific literature demonstrates instead that those nearest death often face a number of impairments that actively distort their perception, cognition, and speech. For example, victims who experience substantial blood loss can fall subject to hypoxia, severely diminishing their mental facul-Often, then, dying declarations are actively unreliable, ties. 130

<sup>124</sup> See McFarland, supra note 14, at 918 ("[S]ocial science demonstrates that liars fabricate lies with amazing rapidity.").

<sup>125</sup> See FED. R. EVID. 804(b)(2).

<sup>126</sup> See Tom Lininger, Reconceptualizing Confrontation After Davis, 85 TEX. L. REV. 271, 318 n.258 (2006) ("The argument for reliability is the same under the new exception as it was in the eighteenth century: no declarant wants to go to his or her death with a lie on his or her lips."); Orenstein, *supra* note 14, at 1412–13.

<sup>127</sup> See generally Gregory A. Smith, Pew Rsch. Ctr., About Three-in-Ten U.S. Adults Are Now Religiously Unaffiliated: Self-Identified Christians Make up 63% of U.S. Population in 2021, down from 75% a Decade Ago (2021).

<sup>128</sup> FED. R. EVID. 804 advisory committee's notes to 1972 proposed rules.

<sup>129</sup> Id.

<sup>130</sup> For a sample of studies on hypoxia, see R.S. Kennedy, W.P. Dunlap, L.E. Banderet, M.G. Smith & C.S. Houston, *Cognitive Performance Deficits in a Simulated Climb of Mount Everest: Operation Everest II*, 60 AVIATION SPACE & ENV'T MED. 99, 103 (1989), which notes that hypoxia caused "mental functions [to] degrade[], particularly global functions [tested such as]... intelligence, reasoning, and short-term memory." *See also* Bryan A. Liang, *Shortcuts* 

distorting the search for an accurate verdict. Yet again, however, Rule 804(b)(2)'s potential damage to verdict accuracy goes unchecked due to the absence of serious investment in according our evidentiary regime with a coherent set of normative objectives.

Importantly, it is not only emerging scientific understandings that undercut evidentiary rules. Evolving cultural norms, too, increasingly see many evidentiary rules undermining the pursuit of legitimate, fair proceedings. But despite the different context, the same ill exists; rule makers' failure to invest in an existential vision for evidence law leads to indifference amid growing injustices.

For an example here, return again to a provision discussed in the Introduction. Rule 609 regulates the impeachment of witnesses via prior criminal convictions, allowing a party to introduce a witness's prior crimes to suggest that they are pathologically untruthful. 131 Of course, one might immediately wonder what a years-old conviction has to do with the veracity of a witness. Empirical studies certainly provide no support for Rule 609's claim that past criminal convictions point toward a witness's proclivity to later perjure herself. 132 Yet, Rule 609 is not solely problematic in its flawed logic. As noted, it also significantly undermines the legitimacy and procedural fairness of proceedings by forcing criminal defendants into an unjust catch-22. Formally speaking, if a criminal defendant chooses to testify, a fact finder is solely allowed to use the defendant's previous criminal convictions to evaluate her veracity. But that's a legal fiction. 133 Studies demonstrate that, instructions notwithstanding, fact finders ascribe a "prior offender penalty" to a defendant and use her previous convictions for a character rationale, thereby significantly undermining the defendant's chances at trial.<sup>134</sup> But even if a defendant chooses not to testify (so as to avoid Rule 609's prior offender penalty), she runs headlong into a "silence penalty," under which fact finders infer guilt from a defendant's

to "Truth": The Legal Mythology of Dying Declarations, 35 AM. CRIM. L. REV. 229, 240 (1998) ("[A]t simulated high altitudes [inducing hypoxia] . . . and absent any other stresses . . . , 'mental functions . . . degraded, particularly global functions [tested such as] . . . intelligence, reasoning, and short-term memory." (third and fourth alterations in original) (quoting Kennedy et al., supra, at 103)).

<sup>131</sup> See FED. R. EVID. 609.

<sup>132</sup> See, e.g., Todd A. Berger, Politics, Psychology, and the Law: Why Modern Psychology Dictates an Overhaul of Federal Rule of Evidence 609, 13 U. PA. J.L. & SOC. CHANGE 203, 213–14 (2010); see also Anna Roberts, Impeachment by Unreliable Conviction, 55 B.C. L. Rev. 563, 577 (2014).

<sup>133</sup> Blinka, *supra* note 21, at 677–78 ("Evidence of past criminal convictions . . . is routinely admitted as relevant to a witness's credibility on the theory that it sheds light on one's 'character for truthfulness,' yet juries will understandably use it more broadly, irrespective of nice legal distinctions, in trying to make sense of what happened and 'who' people are.").

<sup>134</sup> See Bellin, supra note 22, at 400, 403.

unwillingness to testify.<sup>135</sup> In normative terms, then, Rule 609 undermines the fairness and legitimacy of criminal trials. Yet, at the risk of redundancy, it suffices to say that rule makers have not evidenced an eagerness for reform amid the growing injustices.

But perhaps the factor most demonstrative of rule-maker apathy toward aligning the Federal Rules of Evidence with a coherent normative vision is not found within the confines of single rule. Instead, it is found in the very structure of modern evidence law. Of course, the Federal Rules of Evidence comprise many rigid, inflexible dictates that control evidentiary determinations. Juridically speaking, modern judges lack authority to make ad hoc, bespoke admissibility rulings based on the context and contours of a particular case. There is no catchall residual admissibility exception for essential evidence. Yet evidence law is, by its nature, fact dependent. A top-down, institutional attempt to impose an unyielding set of rules is therefore sure to cause injustice and undermine Rule 102's commitment to legitimacy.

Caselaw following the enactment of the Federal Rules of Evidence bears that out. In some instances, for example, the injustice posed by the rigidity of modern evidence law has risen to the level of a constitutional concern, with courts turning to due process principles to reverse the Federal Rules' exclusion of essential exculpatory defense evidence. 137

In other instances, where constitutional intervention has proved impractical, the inflexibility of the rules has motivated courts to resort to more creative means of avoiding injustice. For example, many judges have resorted to bending evidentiary rules, contorting their interpretation to the outer limits of plausibility to avoid an undesirable outcome. A prominent example here is found in courts' treatment of statements from child abuse victims. In difficult abuse cases, a child's account is often essential for a prosecutor's or plaintiff's case. At the same time, however, testifying at trial is an enormously difficult task for children, one made even more daunting by the possibility of retraumatization. Indeed, "[f]or many years, experts and the public have been concerned about the damage that can occur to a child who

<sup>135</sup> See id. at 400.

<sup>136</sup> See Edward J. Imwinkelried, Moving Beyond "Top Down" Grand Theories of Statutory Construction: A "Bottom Up" Interpretive Approach to the Federal Rules of Evidence, 75 OR. L. REV. 389, 412 (1996) (arguing in favor of giving the text of the Federal Rules of Evidence greater relative weight than judicial discretion).

<sup>137</sup> E.g., Mordick v. Valenzuela, 780 F. App'x 430, 433 (9th Cir. 2019) (citing Chambers v. Mississippi, 410 U.S. 284 (1973)).

<sup>138</sup> See generally Edward K. Cheng, G. Alexander Nunn & Julia Simon-Kerr, Bending the Rules of Evidence, 118 Nw. U. L. Rev. 295 (2023) (discussing judicial bending of the Federal Rules of Evidence).

is forced to testify in court about abuse allegedly committed by the same defendant who is sitting nearby watching the child."<sup>139</sup> Despite that reality, Rule 802's hearsay rule is inflexible and unyielding, containing no exception for child declarants (unlike many state evidentiary codes).<sup>140</sup> Thus, like Rule 609, the hearsay rule often forces child victims into an unjust dilemma—testify in the presence of their abuser, or potentially allow the abuser to escape liability.

How have courts responded to such injustice? By bending the Federal Rules of Evidence. 141 Consider, inter alia, 142 how courts have applied Rule 803(4), which provides a hearsay exception for a statement that "is made for—and is reasonably pertinent to—medical diagnosis or treatment."143 The Advisory Committee notes admonish courts that "[s]tatements as to fault would not ordinarily qualify under" the hearsay exception.<sup>144</sup> Nonetheless, courts have adopted an immensely permissive reading to Rule 803(4), contorting their interpretation of the hearsay exception to effectively "eliminate any requirement of treatment motive." This unorthodox interpretation has yielded desirable results, as it's allowed for the admission of child hearsay statements made to doctors, even where the statement contains incriminating assertions that extend beyond the traditional boundaries of medical treatment. 146 Thus, courts intervene to prevent the unfairness and injustice caused by the Federal Rules of Evidence, "intentionally stretch[ing] the rule's clear boundaries to admit statements of fault offered by children because they see such statements as essential to the case."147 It is important to remember, however, why judicial rule bending even exists. At heart, it stems from rule-maker

<sup>139</sup> Ashley E. Seuell, Commentary, Walking the Fine Line: How Alabama Courts Have Interpreted and Applied the Child Physical and Sexual Abuse Victim Protection Act, 54 Ala. L. Rev. 1427, 1428 (2003).

<sup>140</sup> See, e.g., ARK. R. EVID. 803(25) (providing a hearsay exception for child declarants).

<sup>141</sup> See Cheng et al., supra note 138, at 312 (noting that "[m]any [courts] have resorted to rule bending" amid "such difficult circumstances").

<sup>142</sup> Courts similarly bend other rules to provide a pathway to admissibility for statements from child declarants, including Rule 803(2)'s excited utterance exception. See Eleanor Swift, The Hearsay Rule at Work: Has It Been Abolished De Facto by Judicial Decision?, 76 MINN. L. REV. 473, 491–94 (1992).

<sup>143</sup> FED. R. EVID. 803(4)(A).

<sup>144</sup> FED. R. EVID. 803(4) advisory committee's notes to 1972 proposed rules.

<sup>145</sup> Swift, *supra* note 142, at 497–98; *see also* United States v. Iron Shell, 633 F.2d 77, 84–85 (8th Cir. 1980).

<sup>146</sup> See Iron Shell, 633 F.2d at 84 ("It is enough that the information eliminated potential physical problems from the doctor's examination in order to meet the test of 803(4).").

<sup>147</sup> See Cheng et al., supra note 138, at 314.

apathy amid growing injustices, "effectively driving judges underground in the search for solutions to their evidentiary dilemmas." <sup>148</sup>

In sum, the examples above are again demonstrative of a trend. Increasingly, disrepair has crept into the Federal Rules of Evidence; provisions within our evidentiary code undermine verdict accuracy, delegitimatize proceedings, and counteract efficiency principles. And the heart of the problem traces back to evidence law's conceptual shortcomings. Rule 102 does not evince an investment in a coherent vision for evidence law; thus, as an increasingly dilapidated code undermines Rule 102's (nominal) policy goals, problematic provisions are met with apathy rather than urgency.

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Stepping back, the pages above illustrate that evidence law's existential incoherence has a cost. Rather than constituting a mere academic trifle, the omission of a guiding vision for evidence law has led the Federal Rules of Evidence into a series of haphazard, and ultimately self-defeating, policy tradeoffs. Moreover, the lack of care afforded Rule 102 now contributes to the growing disrepair of the Federal Rules of Evidence, as rule makers meet dilapidation with indifference.

Both of these ills ultimately have their genesis in the same root problem—the faulty foundation underlying our evidentiary regime. To remedy the problem, therefore, evidence law must return to its roots. What is the purpose of evidence law? How do evidence law's policy objectives cohere?

#### II. OPTIMIZING EVIDENCE LAW

The absence of a guiding light—the absence of a robust normative hierarchy that brings order to our evidentiary regime's existential foundation—has unfortunately contributed to evidence law's current descent into substantive stagnation and inefficacy.

But diagnosing evidence law's ills is only half the battle. It's one thing to identify shortcomings in the Federal Rules of Evidence; it's another thing entirely to propose remedies for those shortcomings. Evidence law's overarching policy objectives must cohere sensibly if our evidentiary regime is to achieve its optimum. But how *should* evidence law reconcile its varying policy commitments?

This Part endeavors to answer that question. Drawing on principles from the optimization literature, the pages below offer two

<sup>148</sup> *Id.* at 295 (detailing how the rigidity of the rules forces judges to bend the Federal Rules of Evidence).

compelling models that detail how evidence law can sensibly cohere its normative objectives. The first potential framework hews closely to the (probable) intent of Rule 102, conceiving of accuracy, legitimacy, and efficiency as coequal goals of evidence law. The second model, conversely, challenges Rule 102's implicit assumptions; instead of envisioning evidence law as centered around a tripartite purpose, the second model conceptualizes evidence law as focused primarily on the search for truth. Ultimately, once both coherence models are explored in full, the Part foreshadows the substantial reform potential that accompanies coherence.

## A. Evidence Law as Multiobjective Optimization

A first coherent model for evidence law flows descriptively, albeit incompletely, from Rule 102. Despite its shortcomings, Rule 102 does evince a clear desire to foster verdict accuracy, trial legitimacy, and procedural efficiency. 149 Although, as noted, Rule 102 stops there and fails to provide guidance as to how these disparate policy goals cohere, its tripartite focus perhaps points toward a first potential framework. Namely, it might be that evidence law's purpose is to concurrently and, to the extent possible, equally maximize each of the policy objectives outlined in Rule 102. That is, accuracy, legitimacy, and efficiency constitute coequal objectives of evidence law, and the goal of our evidentiary regime is to maximize each to the greatest extent possible.

Framed in this manner, evidence law finds coherence as a manifestation of multiobjective optimization. In its traditional algorithmic form, multiobjective optimization is a function that aims to simultaneously optimize a set of competing and, in many cases, conflicting objectives. Where it is impossible to ascribe each individual objective its optimum due to inescapable tradeoffs, multiobjective optimization nonetheless identifies maximum *attainable* values for the competing objectives after accounting for necessary compromises. <sup>151</sup>

Although multiobjective optimization is typically couched in mathematical terms, its underlying principles extend to numerous practical settings, including coherence frameworks within engineering, computer science, and economics.<sup>152</sup> Indeed, the well-known

<sup>149</sup> See FED. R. EVID. 102.

<sup>150</sup> See André A. Keller, Multi-objective Optimization in Theory and Practice II: Metaheuristic Algorithms 1 (2019); Multi-objective Optimization: Evolutionary TO Hybrid Framework, at v (Jyotsna K. Mandal et al. eds., 2018) [hereinafter Multi-objective Optimization].

<sup>151</sup> See MULTI-OBJECTIVE OPTIMIZATION, supra note 150, at v.

<sup>152</sup> See, e.g., G. Chiandussi, M. Codegone, S. Ferrero & F.E. Varesio, Comparison of Multiobjective Optimization Methodologies for Engineering Applications, 63 COMPUTS. & MATHEMATICS WITH APPLICATIONS 912 (2012); Michael T.M. Emmerich & André H. Deutz, A Tutorial on

efficiency principle of Pareto optimality is also recognizable as a function of multiobjective optimization. <sup>153</sup> And its further extension to evidence law is intuitive.

If evidence law truly does possess three equivalent objectives—as Rule 102 seems to suggest—multiobjective optimization offers a clear framework for cohering accuracy, legitimacy, and efficiency. Namely, the purpose of evidence law is to find an allocation of rules that will accrue the highest *attainable* levels of accuracy, legitimacy, and efficiency for our adjudicatory system after accounting for the inescapable policy tradeoffs demanded by evidence law. Under the multiobjective optimization model, evidence law will know that it has attained—or that it maintains—optimality when no different allocation of rules would better achieve accuracy, legitimacy, or efficiency without corresponding sacrifices to another of the objectives.<sup>154</sup>

Note, then, that unlike other frameworks, rooting evidence law's existential coherence in multiobjective optimization does not inherently demand one exact constellation of rules. Rather, depending on the relative emphasis that rule makers wish to place among accuracy, legitimacy, and efficiency, evidence law could achieve optimality on any point along a frontier.<sup>155</sup> That is, multiobjective optimization yields a plane of optimality rather than a singular point; there will be many constellations of rules—numerous potential codes varying in substantive content—that will all concurrently exist along the optimal frontier despite their disparate normative emphases. For example, one potential code might be heavily weighted toward legitimacy, fiercely protecting privileges, narrowing Rule 606(b), and excising Rule 609. By contrast, another potential code might be instead weighted toward efficiency, maintaining Rule 606(b), making Rule 401's relevance standard more demanding, and expanding Rule 408's and 410's protection of pretrial negotiations. Despite their different emphases, both codes could coexist on the optimal frontier so long as each reaches a point of fixed normative tradeoffs—an equilibrium where they cannot better achieve accuracy without corresponding losses to efficiency or legitimacy, cannot better achieve legitimacy

 $<sup>\</sup>label{eq:multiobjective optimization: Fundamentals and Evolutionary Methods, 17 Nat. Computing 585 (2018).$ 

<sup>153</sup> See, e.g., Matthias Ehrgott, Vilfredo Pareto and Multi-objective Optimization, 17 DOCUMENTA MATHEMATICA (OPTIMIZATION STORIES) 447, 447 (2012).

<sup>154</sup> Cf. Carlos A. Coello Coello, Evolutionary Multi-objective Optimization: A Historical View of the Field, IEEE COMPUTATIONAL INTEL. MAG., Feb. 2006, at 28, 29 (noting that, in the economics literature's application of multiobjective optimization, a solution "is Pareto optimal if there exists no other feasible solution which would decrease some criterion without causing a simultaneous increase in at least one other criterion").

<sup>155</sup> *Cf. id.* ("The plot of the objective functions whose nondominated vectors are in the Pareto optimal set is called the Pareto front." (emphasis omitted)).

without corresponding losses to accuracy or efficiency, and cannot better achieve efficiency without corresponding losses to accuracy or legitimacy.<sup>156</sup>

Thus, inherent within the frontier produced by multiobjective optimization is discretion. Rule makers have leeway to prioritize and weigh certain policy goals over others, so long as the resulting evidentiary regime reaches an equipoise of fixed policy exchanges. Despite the discretion it affords rule makers in crafting a code, the multiobjective optimization model therefore retains significant utility in its ability to root out fruitless normative tradeoffs. If a code sacrifices, say, legitimacy without corresponding accuracy or efficiency gains, it would fall below the optimal frontier, thereby warranting reform.

In the pages below, Part III offers a full accounting of the multiobjective optimization model's substantial reform potential for our evidentiary regime. Nonetheless, it is helpful to examine a few examples here to further elucidate the coherence framework.

A first illustration, for instance, is found in the hearsay rule. In its current form, the hearsay rule falls well short of the multiobjective optimization framework's frontier. Momentarily putting aside questions about the utility of the hearsay rule itself, to the extent that the hearsay rule does aid verdict accuracy—a contested claim that will be examined below<sup>157</sup>—its accuracy gains are quite clearly undermined by many of the hearsay rule's more dubious exceptions. For instance, recall that Rule 803(1)'s present sense impression exception, 158 Rule 803(2)'s excited utterance exception,159 and Rule 804(b)(2)'s dving declaration exception are all scientifically unsound,160 serving as a conduit for untrustworthy statements to achieve admissibility in the courtroom. In normative terms, then, the continued existence of these problematic exceptions undermines the attainment of accurate verdicts. And what does our evidentiary regime receive as compensation for that accuracy sacrifice? Nothing of value. None of the aforementioned exceptions legitimate proceedings to any great degree—in fact, to the extent the hearsay rule still has value, it's in the perceived unfairness of allowing out-of-court statements into the courtroom. Nor do Rule 803(1), Rule 803(2), or Rule 804(b)(2) provide any great efficiency gain to proceedings, particularly relative to simply excluding a statement. Multiobjective optimization thus serves as a valuable tool for quickly recognizing these hearsay exceptions as products of fruitless normative tradeoffs, thereby warranting excision or reform. By

<sup>156</sup> See Deb et al., supra note 17, at 146; see also Gunantara, supra note 17, at 1.

<sup>157</sup> See infra subsection II.B.2.

<sup>158</sup> See McFarland, supra note 14, at 918.

<sup>159</sup> See McCormick on Evidence, supra note 14, § 272, at 366.

<sup>160</sup> See supra notes 125–30 and accompanying text.

jettisoning these exceptions, the Federal Rules of Evidence could increase the accuracy of verdicts without sacrificing either the legitimacy or efficiency of proceedings. That is a worthwhile exchange, and one that reveals that the Federal Rules of Evidence have not yet achieved optimality.

Because the multiobjective model produces a frontier of optimality, however, other potential evidentiary reforms are left to the discretion of rule makers. Consider again, for example, Rule 606(b). Recall that Rule 606(b) places a protectionary firewall around jury deliberations; outside of a set of narrow exceptions, Rule 606(b) forbids testimony about the jury's decisionmaking process.<sup>161</sup> Predictably, then, Rule 606(b) has operated as a shield for immense jury misconduct, ranging from epistemological deviations from instructions to more insidious juror misbehavior. 162 Rule 606(b)'s protection of jurors' shortcomings therefore undercuts both verdict accuracy and legitimacy. At the same time, however, Rule 606(b) does offer efficiency gains. Indeed, perhaps the most compelling justification for Rule 606(b) is that it reinforces the finality of verdicts, typically preventing a series of recursive proceedings. 163 Thus, under the multiobjective optimization model, Rule 606(b) could conceivably exist on the optimal frontier. If rule makers were to calibrate the Federal Rules of Evidence heavily toward efficiency, affording that objective outsized importance, Rule 606(b) could constitute one of many fixed normative tradeoffs designed to streamline trials and minimize costs. To be sure, there will be a much larger section of the optimal frontier that rejects Rule 606(b)'s current formulation. If rule makers were to evince even a middling emphasis on accuracy or legitimacy, Rule 606(b) would warrant substantial reform. But because multiobjective optimization's frontier provides rule makers discretion by encompassing a swath of varying substantive codes, it would not *definitively* render Rule 606(b) suboptimal.

Thus, in sum, multiobjective optimization provides a valuable, albeit somewhat conservative, framework for evidence law. The model not only offers theoretical benefits in the form of coherence and clarity, but also carries substantial reform potential by unearthing rules that normatively underachieve and therefore warrant recalibration. At the same time, by affording rule makers a degree of discretion to

<sup>161</sup> See FED. R. EVID. 606(b).

<sup>162</sup> See, e.g., United States v. Ewing, 749 F. App'x 317, 322 (6th Cir. 2018) ("A juror's statement suggesting that the jury misunderstood or misapplied instructions or the law is also typically considered internal and therefore subject to Rule 606(b)'s bar."); Chandran, supra note 79, at 45 (describing how Rule 606(b) has "delegitimized the courts in the eyes of communities of color").

<sup>163</sup> See FED. R. EVID. 606(b) advisory committee's notes to 1972 proposed rules.

channel our evidentiary regime toward different normative objectives, multiobjective optimization does not inevitably necessitate a radical overhaul of the Federal Rules of Evidence. The same cannot be said, however, of competing optimization models.

## B. Evidence Law as Constrained Optimization

Of course, multiobjective optimization is not the only coherent framework for conceptualizing evidence law's purpose. Indeed, despite its benefits, the viability of multiobjective optimization hinges on an important, yet contestable, claim—namely, the core assertion that accuracy, legitimacy, and efficiency are coequal goals of evidence law. To be sure, that tripartite characterization of evidence law's purpose flows descriptively from the text of Rule 102. But is it correct?

There is certainly room for doubt. In fact, an examination of both the historical record and modern reasoning points in a different direction, suggesting that evidence law's core goal is not the shared pursuit of accuracy, legitimacy, and efficiency as equivalents; instead, the search for truth takes precedence as the primary normative aim of evidence law.<sup>164</sup>

That revelation, if accepted, gives rise to a radically different coherence framework for evidence law. Rather than constituting a manifestation of multiobjective optimization, an evidentiary regime centrally focused on verdict accuracy would instead constitute a function of constrained optimization. Under a constrained optimization framework, evidence law's core purpose would be to maximize verdict accuracy, only yielding the search for truth where absolutely necessary to maintain essential levels of legitimacy and efficiency. Thus, unlike what occurs within the multiobjective optimization framework, constrained optimization would push the Federal Rules of Evidence toward substantial reform, fundamentally reorienting the code toward the discovery of truth.

The pages below explore this competing coherence framework in full. First, the section dives into the historical and normative literatures to identify accuracy as the sole, primary objective of evidence law. The section then considers the implications of accuracy primacy, constructing the constrained optimization framework and detailing its revolutionary potential.

<sup>164</sup> *Cf.* Ronald J. Allen, *Truth and Its Rivals*, 49 HASTINGS L.J. 309, 319 (1998) ("I thus view those of us who teach those who construct and run the legal system as having strong obligations to the truth. A strong obligation to the truth means a highly sceptical eye at the local level and a cabining of scepticism at the global level.").

<sup>165</sup> See generally BERTSEKAS, supra note 30 (providing background on constrained optimization).

# 1. The Primacy of Accuracy in Evidence Law

Once more we turn to a foundational evidentiary issue. Does evidence law actually seek to maximize accuracy, legitimacy, and efficiency as equally important policy goals, as Rule 102 suggests? Or, alternatively, is a singular objective instead at the heart of evidence law?

Somewhat surprisingly, Rule 102's presentation of accuracy, legitimacy, and efficiency as coequal goals of evidence law is rather abnormal. Both the historical and modern literatures instead point definitively in a different direction—namely, that facilitation of the search for truth is the core purpose of evidence law. To be sure, legitimacy and efficiency play an important role in our evidentiary regime, but their importance ultimately proves subordinate to verdict accuracy.

Consider, for example, how the facilitation of verdict accuracy has been at the heart of evidence law since its genesis. Relative to many common-law doctrines, evidence law has young roots. A robust system of evidentiary rules did not emerge until the eighteenth century. <sup>167</sup> Although, at first glance, evidence law's late arrival seems startling, the insignificance of evidence law prior to the seventeenth century makes sense when one considers the adjudicatory structures in place before that time. The jury system first emerged in the twelfth century following the demise of the ordeal, but its function was far different than that of its modern descendant. <sup>168</sup> In its initial form, the jury—individuals with the *greatest* preknowledge of the events at issue—would assume a quasi-prosecutorial role during adjudication. <sup>169</sup> And given early jurors' extensive background knowledge about a case, there was "hardly any place for a law of evidence." <sup>170</sup>

Amid the immense sociocultural upheaval brought on by the fifteenth century's Black Death pandemic, however, the jury system

<sup>166</sup> See FED. R. EVID. 102.

<sup>167</sup> John Langbein has argued that "even into the middle of the eighteenth century, the modern law of evidence was not yet in operation." John H. Langbein, *Historical Foundations of the Law of Evidence: A View from the Ryder Sources*, 96 COLUM. L. REV. 1168, 1170, 1169–72 (1996). There is some ambiguity here, though, as John Henry Wigmore would mark the rise of evidence law to the late-sixteenth, early-seventeenth centuries. *See id.* at 1170.

<sup>168-</sup>See James Q. Whitman, The Origins of Reasonable Doubt: Theological Roots of the Criminal Trial 6–7 (2008).

<sup>169</sup> See Edward K. Cheng & G. Alexander Nunn, Beyond the Witness: Bringing a Process Perspective to Modern Evidence Law, 97 TEX. L. REV. 1077, 1084 (2019) ("The early jury was a self-informed group, as jurors' place in tight-knit agrarian communities enabled them to have intimate knowledge about relevant trial facts or, at a minimum, put jurors in the best position to uncover the necessary facts."); see also Langbein, supra note 167, at 1170–71.

<sup>170 2</sup> Frederick Pollock & Frederic William Maitland, The History of English Law: Before the Time of Edward I, at 660 (2d ed., Boston, Little, Brown, & Co. 1899).

evolved.<sup>171</sup> As tight-knit agrarian villages faded away, jurors increasingly lacked essential preknowledge about the events at issue in a case.<sup>172</sup> Instead, the "jury came to resemble the panel that we recognize in modern practice, a group of citizens no longer chosen for their knowledge of the events, but rather chosen in the expectation that they would be ignorant of the events."<sup>173</sup> Of course, with the jury now ignorant regarding underlying events, parties would need to present information to jurors to help prove their case. Enter the law of evidence.

Importantly, early evidence law was primarily couched in terms of facilitating verdict accuracy. That is, early evidentiary provisions were implemented because of a belief that they would help the jury decide a contested fact correctly.

Take, for instance, the oath. As witness testimony increasingly became a mainstay at trial, the oath emerged due to a belief that "[t]he eternal damnation of a witness's soul was considered a sufficient deterrent to the natural tendency of many witnesses to fabricate or embellish testimony."<sup>174</sup> Stated differently, "Historically, the law relied on the oath to serve the *truth-warranting* function."<sup>175</sup>

When the oath eventually lost its status as an effective assurance of truth, the transition to a reliance on cross-examination was again rooted in the pursuit of verdict accuracy. That is, "[u]nderlying the movement from oath-based to cross-examination-based theories of safeguard in the law of evidence was a changed view of what promoted veracity." The oath did not lose prominence merely because it failed to legitimize trials, or because it was an inefficient evidentiary practice, but instead because its ability to ensure accurate verdicts became surpassed by cross-examination—the "greatest legal engine ever invented for the *discovery of truth*." <sup>177</sup>

As other evidentiary practices also began to emerge, their utility was similarly grounded in a facilitation of accurate fact-finding. The hearsay rule, for example, gained prominence because of concerns

<sup>171</sup> See JOHN H. LANGBEIN, RENÉE LETTOW LERNER & BRUCE P. SMITH, HISTORY OF THE COMMON LAW: THE DEVELOPMENT OF ANGLO-AMERICAN LEGAL INSTITUTIONS 224–27 (2009).

<sup>172</sup> See R.B. Goheen, Peasant Politics? Village Community and the Crown in Fifteenth-Century England, 96 Am. Hist. Rev. 42, 53 (1991).

<sup>173</sup> Langbein, *supra* note 167, at 1171.

<sup>174</sup> See Raymond J. McKoski, Prospective Perjury by a Criminal Defendant: It's All About the Lawyer, 44 ARIZ. ST. L.J. 1575, 1576 (2012); see also Langbein, supra note 167, at 1200 ("The oath-based system presupposed the witness's fear that God would damn a perjurer.").

<sup>175</sup> Frederick Schauer, Essay, Can Bad Science Be Good Evidence? Neuroscience, Lie Detection, and Beyond, 95 CORNELL L. REV. 1191, 1194 (2010) (emphasis added).

<sup>176</sup> Langbein, supra note 167, at 1200.

<sup>177 5</sup> JOHN HENRY WIGMORE, A TREATISE ON THE ANGLO-AMERICAN SYSTEM OF EVIDENCE IN TRIALS AT COMMON LAW § 1367, at 29 (3d ed. 1940) (emphasis added).

about accurate jury fact-finding. In 1816, the Chief Justice of Common Pleas remarked that in bench trials "there is no danger in [judges] listening to evidence of hearsay, because . . . they can trust themselves entirely to disregard the hearsay evidence, or to give it any little weight which it may seem to deserve." <sup>178</sup> However, the Chief Justice went on to suggest that "where the jury are the sole judges of the fact, hearsay evidence is properly excluded, because no man can tell what effect it might have upon their minds."179 Likewise, the best evidence rule earned outsized attention in the early era given its role ensuring the trustworthiness of documents.<sup>180</sup> Ultimately, from "Gilbert through Bentham, Thayer and Wigmore to Cross and McCormick," all historical sources saw evidence law grounded in the "rectitude of decision . . . through accurate determination of true past facts material to precisely defined allegations... presented (in a form designed to bring out truth and discover untruth) to supposedly competent and impartial decision-makers with adequate safeguards against corruption and mistake."181

Of course, the historical record is only one data point. History is, after all, rife with centuries-long practices and traditions that have ultimately proven ineffective, insidious, or worse. Even if history demonstrates that evidence law is rooted in the search for accuracy and truth, what would modern normative reasoning identify as evidence law's primary objective?

Fortunately, here, modern reasoning aligns with the historical record, pointing to the pursuit of truth as the most important function of evidence law. As one of many justifications for this conclusion, consider first a factor that bridges the historical record and modern thought. One of the strongest justifications for centralizing evidence law around the search for truth is the abuses and excesses that arise when an evidentiary regime deviates from that course.

In fact, those historical eras where evidence law deviated from a primary truth focus are marked by the rise of exceedingly problematic practices. As questions began to arise about the efficacy of the oath as a truth-seeking tool, for instance, our evidentiary regime did not pivot seamlessly to cross-examination as a superior fact-finding practice. Instead, for a period, evidence law diverged from facilitating verdict

<sup>178</sup> In re Berkeley (1811) 171 Eng. Rep. 128, 135; 4 Camp. 402, 415 (opinion of Mansfield, C.J.).

<sup>179</sup> Id.; see also Langbein, supra note 167, at 1169.

<sup>180</sup> See WILLIAM TWINING, What Is the Law of Evidence? ("[Early evidence titan] Gilbert tried to subsume all the rules of evidence under a single principle, the 'best evidence rule'...."), in RETHINKING EVIDENCE: EXPLORATORY ESSAYS, supra note 26, at 178, 188.

<sup>181</sup> Seigel, *supra* note 25, at 1001 (first omission in original) (quoting TWINING, *supra* note 26, at 71, 73).

accuracy; instead, evidentiary rules arose, not to aid the search for truth, but instead to protect the oath's legitimacy. The oath's central role demanded that the system avoid sworn credibility conflicts, because any such conflict would reveal in a visible and obvious way the oath's inadequacy to assure truthful testimony. To avoid these credibility contests, evidentiary rules began to prevent criminal defendants from offering sworn testimony on their own behalf, not because such a restriction ensured accuracy, but because it maintained (at least nominally) the legitimacy of the oath. So too did evidentiary rules arise to prevent interested parties from offering sworn testimony in civil cases, again to advance a (dubious form of) legitimacy rather than verdict accuracy.

Again, these problematic evidentiary provisions are instructive. Where evidence law divorces itself from the search for truth, it makes way for the rise of nefarious mandates. To be sure, in periods of broad normative consensus, evidentiary rules grounded in legitimacy or other extrinsic policy benefits might seem benign, even desirable. Yet in periods of normative disagreement, tying evidence law to potentially subjective perceptions of legitimacy provides leeway for malicious actors to retrench the policy preferences of a dominant group, prop up the waning legitimacy of a broken system, or reinforce existing power hierarchies. By contrast, tying evidence law to accuracy and truth—to an empirical reality independent of policy actors—best insulates it from abuse.

Beyond its potential to shield evidence law from abuse, there are other normative bases for supporting accuracy as the primary purpose of evidence law. For instance, "[a]part from any practical benefits of deciding cases accurately (such as improving deterrence), the accuracy of verdicts has moral implications." Correctly determining what occurred in an underlying case is an essential predicate to justice; the

<sup>182</sup> See, e.g., George Fisher, The Jury's Rise as Lie Detector, 107 YALE L.J. 575, 590-91 (1997).

<sup>183</sup> Id. at 580.

<sup>184</sup> See id. at 590–91; see also Robert Popper, History and Development of the Accused's Right to Testify, 1962 WASH. U. L.Q. 454, 464 n.49 (1962) (listing several states that did not pass defendant testimony laws until after 1890).

<sup>185</sup> See Fisher, *supra* note 182, at 625 ("Wigmore traced the rule barring civil parties to the sixteenth century and that barring all other interested persons to the mid-seventeenth century.").

<sup>186</sup> See, e.g., Fisher, supra note 182, at 672 (documenting the progressive rise and fall of evidentiary rules that prohibited "[t]estimony by [n]onwhites and [c]ivil [p]arties").

<sup>187</sup> Daniel Shaviro, Commentary, Statistical-Probability Evidence and the Appearance of Justice, 103 HARV. L. REV. 530, 532 (1989); see also Richard O. Lempert, Built on Lies: Preliminary Reflections on Evidence Law as an Autopoietic System, 49 HASTINGS L.J. 343, 343 (1998) ("The system's legitimacy is threatened when the spotlight is cast on the lies at its core.").

ramifications of inaccurate decisionmaking are dire. For example, in its most alarming manifestation, the false conviction of a criminal defendant is an unequivocal tragedy. So too, though, are erroneous verdicts unfair to plaintiffs seeking recompense and civil defendants who engaged in no misbehavior. An evidentiary regime that focuses primarily on verdict accuracy stands as a bulwark against the injustices that arise from erroneous verdicts, calibrating our evidentiary regime to minimize the likelihood of error. See

The arguments advanced above are far from anomalous. In fact, in the modern era, accuracy primacy is nigh implicit. For instance, the contemporary evidence literature evinces "near-universal acceptance of 'optimistic rationalism,'" a conceptual model advanced by Professor William Twining that posits that "the overarching function of evidence law is to maximize the . . . probability that factfinders in our adjudicatory system will accurately determine objective historical truth."<sup>190</sup> Equally prominent scholars such as Professor Ronald Allen also defend the importance of accuracy primacy,<sup>191</sup> and courts themselves have repeatedly recognized, with their own emphasis, that "trials *are* searches for the truth."<sup>192</sup> Although there are compelling scholarly accounts that propose different emphases for evidence law and adjudication generally,<sup>193</sup> the "pursuit of accuracy is undoubtedly the 'single

<sup>188</sup> See Schlup v. Delo, 513 U.S. 298, 325 (1995) (recounting the "fundamental value determination of our society that it is far worse to convict an innocent man than to let a guilty man go free" (quoting *In re* Winship, 397 U.S. 358, 372 (1970) (Harlan, J., concurring))).

<sup>189</sup> For an excellent, more robust exploration of how error analysis intersects with evidence proof—sometimes in nonintuitive ways—see generally Ronald J. Allen, *Standards of Proof and the Limits of Legal Analysis*, DIRITTO & QUESTIONI PUBBLICHE, Dec. 2019, at 7 (It.).

<sup>190</sup> See Seigel, *supra* note 25, at 996 (detailing William Twining's "optimistic rationalism" model for evidence (quoting TWINING, *supra* note 26, at 75)).

<sup>191</sup> See Allen, supra note 164, at 310, 319 (arguing that "those of us who teach those who construct and run the legal system [have] strong obligations to the truth," id. at 319, and disagreeing with the characterization that "evidence scholars have debated the feasibility, coherence, wisdom, and justice of treating the pursuit of truth as the dominant goal of trial," id. at 310); Allen, supra note 48, at 39–40 ("Many scholars, I believe, view the law of evidence as involved primarily with advancing accurate outcomes subject to certain policy constraints, and thus the field of evidence is associated primarily with epistemology . . . ."

Id. at 40.); see also Mirjan Damaška, Truth in Adjudication, 49 HASTINGS L.J. 289, 297 (1998) ("Although the truth we seek in legal proceedings is dependent on social context—contingent rather than absolute—this does not imply that our aspiration to objective knowledge is misconceived, or quixotic.").

<sup>192</sup> See, e.g., United States v. Harper, 662 F.3d 958, 961 (7th Cir. 2011); accord Tehan v. United States ex rel. Shott, 382 U.S. 406, 416 (1966) ("The basic purpose of a trial is the determination of truth...."); United States v. Bogers, 635 F.2d 749, 751 (8th Cir. 1980) ("The basic purpose of a trial is to search for the truth....").

<sup>193</sup> See, e.g., Nesson, supra note 28, at 1357; Jasmine B. Gonzales Rose, Toward a Critical Race Theory of Evidence, 101 MINN. L. REV. 2243, 2245 (2017); Seigel, supra note 25, at 1011.

dominant value' or 'grand theory' underlying the vast majority of evidence doctrine." <sup>194</sup>

And, as evidenced above, there is good reason for affording verdict accuracy central importance. Such a focus accords with centuriesold practice. It accrues significant systematic benefits by insulating our evidentiary regime law from institutional abuses. And, perhaps most importantly, the pursuit of truth fosters justice.

# 2. Pursuing Accuracy Through Constrained Optimization

Identifying accuracy as the primary objective of evidence law is only half the battle. After all, evidence law certainly plays *some* important role in facilitating just trials and streamlining proceedings. Even if the importance of legitimacy and efficiency ultimately proves subordinate to truth seeking, the two policy objectives still deserve material attention during the creation and implementation of an evidentiary regime. In fact, were legitimacy and efficiency to fall below critical levels amid an uncompromising search for truth, the entire adjudicatory system would prove nonviable. For example, if an omnipotent focus on accuracy saw evidence law violate deeply held cultural norms or led to unwieldy and costly trials, the regime would surely lose public confidence.

Thus, a question of coherence again arises. How can evidence law balance accuracy primacy on one hand while ensuring necessary safeguards for legitimacy and efficiency on the other?

Once again, optimization principles prove helpful. Under a paradigm of accuracy primacy, multiobjective optimization is inapplicable. Recall that the multiobjective optimization model is only operative where one seeks to attain maxima among many conflicting objectives. That is, if the goal of evidence law is to concurrently maximize accuracy, legitimacy, and efficiency, then multiobjective

<sup>194</sup> Seigel, *supra* note 25, at 1011 (first quoting Daniel A. Farber & Philip P. Frickey, *Practical Reason and the First Amendment*, 34 UCLA L. REV. 1615, 1618 (1987); and then quoting William N. Eskridge, Jr. & Philip P. Frickey, *Statutory Interpretation as Practical Reasoning*, 42 STAN. L. REV. 321, 321 (1990)); *see also* Ronald J. Allen & Brian Leiter, *Naturalized Epistemology and the Law of Evidence*, 87 VA. L. REV. 1491, 1492 n.1 (2001) (noting that although "[p]ostmodernists are typically skeptical about the possibility of objective truth, as well as our capacity to find objective truth in the world," their "outlook is remarkably useless for evidence law").

<sup>195</sup> See United States v. Patterson, 587 F. App'x 878, 894 (6th Cir. 2014) (Cole, C.J., concurring in part and dissenting in part) ("The legitimacy of our criminal justice system depends, in large part, on the fairness of trials . . . .").

<sup>196</sup> See Laura C. Turano, Note, *The Gender Dimension of Transitional Justice Mechanisms*, 43 N.Y.U. J. INT'L L. & POL. 1045, 1073 (2011) ("The legitimacy of trials requires that due process norms be respected.").

<sup>197</sup> See MULTI-OBJECTIVE OPTIMIZATION, supra note 150, at v.

optimization applies. Yet in an accuracy-focused framework, the pursuit of truth is the sole objective. Legitimacy and efficiency, conversely, act as restraints (not coequal objectives) on that search for truth, delineating the boundaries of fair play that evidence law must abide while it pursues accuracy. An accuracy-focused regime must therefore evince a central focus on pursuing truth, but must also exhibit a willingness to yield the pursuit of accuracy where absolutely necessary to safeguard essential levels of procedural fairness and cost minimization.

Within this paradigm, then, evidence law is again recognizable not as a form of multiobjective optimization—but instead as a manifestation of constrained optimization. In its algorithmic form, constrained optimization is a function that seeks to maximize an objective that is subject to hard restraints. 198 Stated differently, single-objective constrained optimization seeks to augment the value of one output within the "feasible region" permitted by constraining variables. 199 Given the presence of constraints, the model typically fails to achieve the maximum en vacuo value of an objective; rather, constrained optimization achieves the maximum attainable value of an objective that still accords with the systematic restrictions.<sup>200</sup> Consider the framework in evidentiary terms. The pursuit of accuracy is the primary goal—the objective—of evidence law. However, evidence law cannot achieve its maximum en vacuo degree of verdict accuracy due to constraints that require some concessions to legitimacy and efficiency. For instance, as noted above, an evidentiary regime that severely violates cultural norms or runs up significant expenses during its quest for truth will prove nonviable.<sup>201</sup> Thus, constrained optimization searches for the allocation of evidentiary rules that best achieves verdict accuracy while remaining within the feasible region permitted by the constraints that legitimacy and efficiency place on truth seeking.

Interestingly, unlike the multiobjective optimization model explored above, perceiving evidence law as a function of constrained optimization does not yield a frontier of potential solutions or an array of substantively varying evidentiary regimes that could equally qualify as optimal. Instead, under the accuracy-focused constrained optimization paradigm, only one allocation of rules will constitute the

<sup>198</sup> See generally BERTSEKAS, supra note 30.

<sup>199</sup> See Evolutionary Constrained Optimization, supra note 30, at vii, viii, 32, 261–63

<sup>200</sup> See Peter B. Morgan, An Explanation of Constrained Optimization for Economists 238–39 (2015). See generally John Gregory & Cantian Lin, Constrained Optimization in the Calculus of Variations and Optimal Control Theory (1992).

<sup>201</sup> See, e.g., Geders v. United States, 425 U.S. 80, 86–87 (1976) (detailing the degree to which a trial judge must control proceedings to preserve and maintain "truth and fairness," *id.* at 87); see also supra note 196 and accompanying text.

optimum.<sup>202</sup> After identifying the boundaries of fact-finding by applying the systemic constraints imposed by legitimacy and accuracy, evidence law's optimum will constitute whichever allocation of rules within the remaining feasible region has the greatest tendency to produce accurate verdicts. Although there is sure to be differing perceptions about the extent of concessions that are necessary to safeguard legitimacy and accuracy, rule makers possess much less discretion to vary a code's substance within the feasible region due to the fact that accuracy is the sole primary objective.

Having unpacked the theoretical basis for the constrained optimization coherence model, it is helpful to again return to a concrete example as a means of elucidating the constrained optimization framework and contrasting it with multiobjective optimization.

Consider, again, the hearsay rule itself. Despite its vaunted status as a mainstay within evidence law's modern pantheon, there are serious questions as to whether the hearsay rule is truly necessary. Empirical studies have demonstrated that a primary justification for the hearsay rule—ensuring the reliability of out-of-court statements—is actually illusory.<sup>203</sup> Prospective jurors weigh hearsay appropriately, suitably discounting it given uncertainties about an out-of-court declarant's testimonial capacities.<sup>204</sup> Thus, far from safeguarding the accuracy of trials, the hearsay rule actually has a greater tendency to *undermine* fact-finding. The hearsay rule often excludes out-of-court statements—such as third-party confessions or exculpatory admissions—that could prove essential for a defendant's case,<sup>205</sup> despite that fact that, according to empirical studies, jurors are fully capable of weighing those hearsay statements appropriately.

But despite its dubious effect on accuracy, the hearsay rule does provide other normative benefits. For example, the same studies that demonstrate the hearsay rule's ineffectuality toward protecting verdict accuracy also reveal that the hearsay rule nonetheless fosters procedural legitimacy.<sup>206</sup> That is, even if prospective jurors are not misled

<sup>202</sup> See generally BERTSEKAS, supra note 30; PROBABILISTIC CONSTRAINED OPTIMIZATION: METHODOLOGY AND APPLICATIONS (Stanislav P. Uryasev ed., 2000). For a relatively illustrative set of constrained optimization problems, see Constrained Optimization Solutions: Math Camp 2012, http://www.columbia.edu/~md3405/Constrained\_Optimization %20Soluciones.pdf [https://perma.cc/T8GK-W69B].

<sup>203</sup> See Sevier, *supra* note 32, at 893–96 (surveying numerous empirical studies that undermine the notion that juries overvalue hearsay evidence).

<sup>204</sup> See Kovera et al., supra note 32, at 704; Miene et al., supra note 32, at 691.

<sup>205</sup> See, e.g., United States v. Slatten, 865 F.3d 767, 809–10 (D.C. Cir. 2017) (per curiam) (reversing conviction after trial court applied the hearsay rule to exclude exculpatory confession).

<sup>206</sup> See Sevier, supra note 33, at 688 ("A procedural justice rationale for the hearsay rule will have the support of the general public because dignity and fairness concerns—and not

by hearsay, they continue to believe that admitting hearsay can be un-fair.  $^{207}$ 

Thus, the hearsay rule presents an interesting normative tradeoff, potentially undercutting accuracy but bolstering legitimacy. Under the multiobjective optimization framework, the hearsay rule could therefore still exist on the optimal frontier, despite its potential to diminish verdict accuracy. Because the hearsay rule's accuracy losses are not fruitless but instead compensated by legitimacy gains, it fits comfortably on those sections of the multiobjective framework's optimal frontier that more heavily prioritizes procedural fairness.

The calculus changes, however, in the constrained optimization paradigm. Within this framework, evidence law's objective is no longer the concurrent maximization of accuracy, legitimacy, and efficiency. Instead, the constrained optimization model focuses solely on fostering verdict accuracy. Rather than asking whether the hearsay rule's accuracy losses are adequately compensated by legitimacy gains, constrained optimization instead considers whether reforming the hearsay rule could improve fact-finding without plunging our evidentiary regime below unacceptable levels of illegitimacy or inefficiency.

Framed in this manner, constrained optimization clearly points toward a reformation of the hearsay rule. Specifically, a significant narrowing of the hearsay rule's scope could improve fact-finding, particularly given the empirical finding that jurors can adequately navigate the potential dangers of out-of-court statements.<sup>208</sup> At the same time, however, the hearsay rule need not be eliminated entirely. A thinner, more targeted hearsay rule could remain for statements that possess the greatest tendency to undermine procedural fairness. Under this formulation, then, a reformed hearsay rule would perhaps operate more along the lines of Rule 403 than its current Rule 801 formulation.<sup>209</sup> Out-of-court statements would enjoy a presumption of admissibility. At the same time, that presumption could be overcome if a statement's probative value is substantially outweighed by a risk of untrustworthiness or procedural illegitimacy. As demanded by the constrained optimization model, that reformed hearsay rule better calibrates our evidentiary regime toward accurate fact-finding, while simultaneously affording room for conceding probative evidence where

decisional accuracy concerns—are what the vast majority of the public believes the hearsay rule is designed to protect.").

<sup>207</sup> See id.

<sup>208</sup> See Sevier, supra note 32, at 893–96.

<sup>209</sup> See FED. R. EVID. 403 (generally admitting evidence except in extreme cases where its probative value is substantially outweighed by "unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence").

necessary to safeguard trial legitimacy or actual detriments to the discovery of truth.

Conceptually, then, the constrained optimization framework constitutes a more aggressive framework than the multiobjective optimization model. Constrained optimization's core principle of accuracy primacy pushes it toward fundamental reforms of our evidentiary system, reforms that would substantially recalibrate rules toward truth seeking. But if evidence law is indeed, at heart, about the search for truth, the reforms encouraged by constrained optimization are well warranted.

#### III. THE REFORMATORY PROMISE OF COHERENCE

By now, one might fairly wonder whether remedying the incoherence of evidence law is merely an academic exercise. To be sure, identifying and correcting foundational disorder within the Federal Rules of Evidence fosters theoretical clarity, but to what extent does it actually yield practical, tangible reform?

Fortunately, the optimization models outlined above reach far beyond angels and pinheads.<sup>210</sup> Both the multiobjective and constrained optimization frameworks are far more than theories—they are tools. They establish a normative hierarchy to govern policy tradeoffs within our evidentiary regime and, by extension, serve as an arbiter for discovering and reforming underachieving rules. In fact, if rule makers take seriously the normative equilibria outlined by multiobjective and constrained optimization, the two frameworks operate as roadmaps for the most extensive reform to evidence law since its codification a half century ago.

This Part details the reformatory promise of a coherent evidentiary regime. First, the pages below focus on consensus reforms—improvements to the Federal Rules of Evidence that both the multiobjective and constrained optimization models equally encourage. The Part then goes beyond those consensus reforms to consider the revolutionary potential of the constrained optimization model in particular; if evidence law is indeed, at heart, about discovering truth, our evidentiary regime perhaps warrants radical reinvention.

# A. Consensus Reforms

The Federal Rules of Evidence are far from optimal. Both optimization frameworks bear out that much. Although there will be points at which the multiobjective and constrained optimization models

<sup>210</sup> *Cf.* United States v. Garcia, 690 F. App'x 622, 624 (10th Cir. 2017) (O'Brien, J., concurring) ("Contemplating the number of angels that might dance on the head of a pin may satisfy intellectual urges, but it offers no practical value.").

diverge and recommend different reformatory measures, there is also a series of reforms that the two frameworks would equally identify as essential. For the most part, these "consensus reforms" target rules or doctrines that are normatively fruitless, sacrificing the Federal Rules' pursuit of accuracy, legitimacy, or efficiency without any policy recompense. Thus, regardless of the optimization model preferred by rule makers, a sincere commitment to a coherent vision for evidence law demands recalibration of these underperforming provisions.

The excision of Rule 609 is an obvious first consensus reform.<sup>211</sup> Recall that Rule 609 has critical shortcomings, which were unpacked in full in the pages above.<sup>212</sup> For one, Rule 609 undermines verdict accuracy.<sup>213</sup> The empirical literature completely vitiates the notion that individuals who have committed felonies are, inherently, pathological liars.<sup>214</sup> And far from aiding fact finders in their quest for truth, Rule 609 distorts the truth by introducing the material risk that jurors will use a defendant's past crimes for an impermissible propensity purpose (rather than as evidence of untruthfulness).<sup>215</sup> Rule 609 equally undercuts legitimacy, as it unfairly forces defendants to choose between the aforementioned "prior offender penalty" or "silence penalty," which equally disadvantage criminal defendants in the courtroom.<sup>216</sup> What, then, does our evidentiary regime receive for sacrificing both accuracy and legitimacy? Nothing of note, as Rule 609 fails to aid efficiency in any material sense.

Both the multiobjective and constrained optimization models therefore demand the reform—or, more likely, the removal—of Rule 609. Despite the inherent discretion afforded to rule makers by the multiobjective optimization framework, Rule 609 does not constitute a fixed exchange of policy goals. Instead, it is an uncompensated impediment to verdict accuracy and legitimacy, thereby pulling the Federal Rules of Evidence away from the multiobjective model's optimal frontier. The solution is therefore simple. Because the removal of Rule 609 would increase the likelihood of trial accuracy and legitimacy with no cost to procedural efficiency, the multiobjective framework encourages that reform. And the constrained optimization model is in accord with that conclusion. Analyzed within its paradigm, the removal of Rule 609 would improve verdict accuracy while keeping the

<sup>211</sup> See FED. R. EVID. 609.

<sup>212</sup> See supra notes 19–24 and accompanying text.

<sup>213</sup> See Foster, supra note 4, at 5 ("Rule 609 is the product of the law's long-standing and dogmatic assumptions that criminal convictions reflect character, and that character determines veracity.").

<sup>214</sup> See, e.g., Berger, supra note 132, at 213-14.

<sup>215</sup> *See* Blinka, *supra* note 21, at 677–78.

<sup>216</sup> See Bellin, supra note 22, at 400.

Federal Rules within the feasible region permitted by the constraining influence of legitimacy and efficiency interests. Given the constrained optimization model's emphasis on improving truth seeking, excising Rule 609 is unquestionably a reform it would also adopt.

Rule 609, though, does not stand alone. Rules 413 and 414 are another set of provisions that would equally warrant excision (as opposed to mere reform) under both optimization frameworks. Introduced above, Rules 413 and 414 constitute exceptions to Rule 404's general character evidence prohibition, dictating that certain sexual crimes can be introduced to suggest the recidivistic tendencies of a defendant.<sup>217</sup> Yet, like many provisions in the Federal Rules, Rules 413 and 414 lack empirical justification; the literature actually reveals that recidivism rates for the sex crimes targeted by Rule 413 and 414 are generally *lower* than other types of felonies.<sup>218</sup> In normative terms, then, Rules 413 and 414 again undercut both accuracy and legitimacy. Regarding verdict accuracy, Rules 413 and 414 thrust an immensely prejudicial element into deliberations, as jurors will surely feel a temptation to convict defendants based on their past heinous crimes.<sup>219</sup> Regarding trial legitimacy, Rules 413 and 414 vitiate a defendant's "clean slate" at trial, giving rise to the risk of repunishment for a past offense.<sup>220</sup> And, as with Rule 609, Rules 413 and 414 yield no efficiency benefits to justify these normative losses.

Once more, then, both the multiobjective and constrained optimization models would call for reform. Rules 413 and 414 drag the Federal Rules of Evidence below the multiobjective model's optimal frontier given their ineffective policy tradeoff. The multiobjective framework would therefore call for their excision, augmenting the Federal Rules' accuracy and legitimacy without any sacrifice to efficiency. Similarly, in the language of the constrained optimization model, removing both Rules 413 and 414 would improve the search for truth without plunging the Federal Rules to unacceptable depths of unfairness or unwieldiness. The constrained optimization model would thus implement that change.

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<sup>217</sup> See FED. R. EVID. 413-414.

<sup>218</sup> See Duane, supra note 105, at 113 ("[T]here is a substantial body of empirical research that... the recidivism rate for sex offenders is actually *lower* than for most other categories of serious crimes.").

<sup>219</sup> See id. at 110 (noting that, when confronted by a defendant's past crimes, jurors might convict "on the basis of their disapproval of his prior crimes, or their hunch that he has committed other crimes for which he was never caught, or their fear of letting him remain on the streets to commit future crimes").

<sup>220</sup> See Orenstein, *supra* note 97, at 1490 ("Traditionally, propensity evidence was disfavored on the grounds that people should be tried for their charged acts and not for their past deeds or personalities.").

Rule 404(b)'s additional "exceptions" to the character evidence prohibition would equally qualify for consensus reform under both models. Although Rule 404(b) nominally excludes a defendant's past bad acts from the courtroom, it provides numerous avenues for bypassing that general bar. For example, if a party introduces a prior act to demonstrate a defendant's knowledge and ability to commit a complex crime, the evidence is often admissible. To be sure, introducing past acts for nonpropensity purposes is not inherently problematic in itself; often, past acts are inextricably intertwined with a later case. But commentators have recognized that Rule 404(b)'s allowance for nonpropensity uses of past acts, which was originally intended to "serve as a narrow means of admitting evidence closely related to the charged case," has metastasized into an outsized "end-run around what little protections Rule 404(b) may provide to defendants."

In normative terms, then, Rule 404(b) causes problems. For one, Rule 404(b)'s permissive end-run around the character evidence prohibition often distorts the fact-finding process, tempting jurors to decide cases based on impermissible propensity reasoning.<sup>226</sup> Those accuracy risks are compounded by legitimacy costs, as again, the introduction of a defendant's prior misbehavior wipes away his clean slate and level playing field at trial.<sup>227</sup> Moreover, as with Rules 413 and 414, Rule 404(b)'s bypass of the propensity evidence ban fails to produce efficiency gains to offset its accuracy and legitimacy losses.

Given Rule 404(b)'s poor tradeoff, both the multiobjective and constrained optimization models would again call for the reform. Importantly, though, reform is not necessarily an all-or-nothing endeavor. Reinventing a rule is often preferable to removing it entirely.

For example, the partial retention of Rule 404(b) is essential given the immense importance that some past acts play at later trials. Often,

<sup>221</sup> More precisely, Rule 404(b)(2) does not list exceptions to the general prohibition of character and propensity evidence. Rather, it lists permissible nonpropensity uses of the evidence. *See* FED. R. EVID. 404(b)(2).

<sup>999</sup> See id.

<sup>223</sup> See, e.g., United States v. Ling, 172 F. App'x 365, 366 (2d Cir. 2006) (per curiam) (noting that Rule 404(b) does not prohibit the introduction of a past act to prove that the defendant "had the knowledge of how to coordinate a complex heroin transaction with established players in the drug trade").

<sup>224</sup> See United States v. DeGeorge, 380 F.3d 1203, 1219 (9th Cir. 2004) (finding that Rule 404(b) does not prohibit the introduction of past acts that are "inextricably intertwined" with a case).

<sup>225</sup> Rachel Moran, Contesting Police Credibility, 93 WASH. L. REV. 1339, 1359 (2018).

<sup>226</sup> See, e.g., Paul S. Milich, The Degrading Character Rule in American Criminal Trials, 47 GA. L. REV. 775, 777 (2013) ("[T]he most critical and problematic part of the character rule [has been] the admission of the criminal defendant's past crimes and other acts under rule 404(b).").

<sup>227</sup> See Orenstein, supra note 97, at 1490.

a case would prove nonsensical without the introduction of past acts that contextualize and explain later behavior.<sup>228</sup> But despite the occasional necessity of past acts, rule makers could still reformulate Rule 404(b) to limit its susceptibility to abuse. As one of many possibilities, for instance, a simple shift in admissibility thresholds could better calibrate the use of past acts in the courtroom. At present, a Rule 404(b) permissible purpose is merely subjected to Rule 403. In technical terms, the Rule 403 threshold renders a past act admissible unless the probative value of its nonpropensity purpose (i.e., motive, knowledge, identity, etc.) is substantially outweighed by a risk of unfair prejudice (i.e., the risk that the jury will actually use the past act for an impermissible propensity rationale).<sup>229</sup> However, if Rule 404(b) permissible purposes were instead subjected to a so-called "Reverse 403" standard, the rule's susceptibility to abuse would greatly diminish.<sup>230</sup> Returning again to technicalities, the Reverse 403 threshold would now render a past act admissible only if the probative value of its nonpropensity utility substantially outweighs the risk of unfair prejudice that arises from the looming propensity threat.<sup>231</sup>

Despite its subtle nature, that simple shift greatly improves Rule 404(b)'s normative acceptability. Subjecting Rule 404(b) to a Reverse 403 admissibility threshold increases both verdict accuracy and legitimacy by reducing instances when past acts can distort fact-finding or undermine a defendant's clean slate at trial. At the same time, the Reverse 403 standard still provides an accessible avenue of admissibility for past acts that are inextricably intertwined with later cases, thereby vindicating the intended purpose of Rule 404(b). Certainly, then, both optimization frameworks would encourage this recalibration of Rule 404(b). Because the implementation of a Reverse 403 threshold for Rule 404(b) past acts improves accuracy and legitimacy with no cost to efficiency, the reform advances the Federal Rules toward the multiobjective model's optimal plane. Likewise, within the constrained optimization paradigm, ascribing a more rigorous admissibility threshold for prior acts bolsters verdict accuracy while posing no material risk of drastically undermining trial legitimacy and efficiency.

<sup>228</sup> See DeGeorge, 380 F.3d at 1219 (recognizing past acts as "inextricably intertwined" with later case).

<sup>229</sup> See FED. R. EVID. 404 advisory committee's notes to 1972 proposed rules (noting that Rule 404(b)'s permissible purposes still require a determination as to "whether the danger of undue prejudice outweighs the probative value of the evidence . . . under Rule 403").

<sup>230</sup> The Federal Rules of Evidence already contain a Reverse 403 standard for the impeachment of witnesses using stale crimes. *See* FED. R. EVID. 609(b).

<sup>231</sup> See FED. R. EVID. 609(b).

By now, a clear trend has formed. Despite their differences, the optimization frameworks are equally capable of sifting through the Federal Rules of Evidence and targeting underachieving provisions for reform. Regardless of whether one gravitates toward the multiobjective or constrained optimization model, there exists numerous evidentiary rules that both frameworks recognize as suboptimal. Indeed, the examples explored above are merely illustrative; many more consensus reforms also deserve attention. For example, Rule 801(d)(1)(C)'s hearsay exception for prior identifications endangers verdict accuracy, as it readily contributes to false convictions.<sup>232</sup> Rule 803(1)'s present sense impression exception,<sup>233</sup> Rule 803(2)'s excited utterance exception,<sup>234</sup> and Rule 804(b)(2)'s dying declaration exception also endanger truth seeking, given their empirical deficiencies.<sup>235</sup> The current omission of a catchall, residual admissibility exception for essential evidence equally undermines trial legitimacy and accuracy, to no great benefit.<sup>236</sup> The list goes on and on. And therein lies the reformatory promise of the optimization frameworks.

## B. The Accuracy Revolution

Of course, not all evidentiary rules warrant reform under *both* optimization models. Perhaps more interesting—and more instructive—are those evidentiary doctrines that face a different fate depending on whether rule makers adopt the multiobjective or constrained optimization model.

As noted above, the multiobjective optimization model is generally more conservative. Although it has significant utility in its ability to identify and reform normatively underachieving rules, it does not dictate a radical overhaul of the Federal Rules of Evidence. Instead, the multiobjective framework affords rule makers discretion to place varying emphases on accuracy, legitimacy, and efficiency, providing room for an evidentiary code that constitutes a quilt of varying policy commitments.

Not so in the constrained optimization paradigm. Of course, accuracy primacy is at the heart of the constrained optimization model. And if the central imperative of our evidentiary regime is to discover

<sup>232</sup> See Jeffrey Bellin, *The Evidence Rules That Convict the Innocent*, 106 CORNELL L. REV. 305, 327 (2021) (noting that Rule 801(d)(1)(C)'s hearsay exception for prior identifications carries a "potential to convict the innocent").

<sup>233</sup> See McFarland, supra note 14, at 918.

<sup>234</sup> See MCCORMICK ON EVIDENCE, supra note 14, § 272, at 366.

<sup>235</sup> See Orenstein, supra note 14, at 1413.

<sup>236</sup> See Cheng et al., supra note 138, at 132 (noting that "many [courts] have resorted to rule bending" given the absence of a catchall admissibility rule).

truth, it's not difficult to imagine fundamental changes sweeping through the Federal Rules of Evidence.

Recall, for instance, that the constrained optimization model would call for the reinvention of the most (in) famous of all evidentiary dictates—the hearsay rule.<sup>237</sup> Although the multiobjective framework maintains the hearsay rule given its legitimacy benefits, the constrained optimization model instead encourages a significant narrowing of the hearsay prohibition, thereby reinventing the evidentiary mainstay.

But that reform is just an opening salvo. For a second major reform likely warranted under the constrained optimization model, return again (for a final time) to Rule 606(b), which protects jury secrecy.<sup>238</sup> As noted, Rule 606(b) undercuts both verdict accuracy and legitimacy by shielding jury deliberations from operative effect in the courtroom; at the same time, it bolsters efficiency due to the sense of finality it affords a jury verdict.<sup>239</sup> Despite the seemingly dubious nature of this tradeoff, the pages above recognized that the multiobjective optimization model might maintain Rule 606(b) in its current form.<sup>240</sup> Because the multiobjective model does not solely prioritize accuracy, an evidentiary code that retains Rule 606(b) could conceivably exist near the section of the optimal frontier that places a particular emphasis on efficiency.

The constrained optimization model, however, would easily reach a different conclusion. Because Rule 606(b) hampers the search for truth by restricting courts' ability to ensure that jurors engage in a sound decisionmaking process,<sup>241</sup> the constrained optimization model would demand reform. As with the hearsay rule, this reform need not constitute total erasure of the no-impeachment rule. In fact, a presumption of jury secrecy could remain in place. However, given the constrained optimization model's desire to improve fact-finding, Rule 606(b) minimally requires an additional exception allowing testimony about jury deviations from instructions and other forms of epistemological misconduct. In the terminology of the constrained optimization paradigm, such an additional exception to Rule 606(b) would

<sup>237</sup> See supra subsection II.B.2.

<sup>238</sup> See FED. R. EVID. 606(b).

<sup>239</sup> See FED. R. EVID. 606(b) advisory committee's notes to 1972 proposed rules (describing the efficiency benefits of Rule 606(b)); Crump, *supra* note 78, at 521 ("During the controversial evolution of Rule 606(b), little consideration was given to the accuracy of individual jury verdicts or to the long-term effect of a judicial system that consciously suppresses evidence of malfeasance.").

<sup>240</sup> See supra Section II.A.

<sup>241</sup> See, e.g., United States v. Ewing, 749 F. App'x 317, 322 (6th Cir. 2018) ("A juror's statement suggesting that the jury misunderstood or misapplied instructions or the law is also typically considered internal and therefore subject to Rule 606(b)'s bar.").

improve verdict accuracy and pose no great risk of plunging trials to an unacceptable level of legitimacy or efficiency. Indeed, such a carve-out would likely increase procedural legitimacy, as litigants would have a greater assurance of fact finder diligence.<sup>242</sup> Once more, then, another evidentiary mainstay—jury secrecy—faces reinvention under the constrained optimization framework.

Still other pillars of evidence law face reform as a part of the constrained optimization model's accuracy revolution. Consider privileges. Rule 501, which enshrines common-law privileges within the Federal Rules of Evidence, constitutes one of the starkest policy tradeoffs in our evidentiary code. Privileged communications often contain incredibly probative information; their admission at trial would greatly improve verdict accuracy. At the same time, however, legitimacy concerns often demand the exclusion of privileged statements, particularly given the injustice of piercing societally protected relationships. Yellow

Examined first under the multiobjective optimization model, Rule 501 and its enshrinement of common-law privileges is safely located on the optimal frontier. Rule 501's accuracy sacrifices are fully compensated by legitimacy gains, and the multiobjective model affords rule makers discretion for those types of fixed normative exchanges.

But the calculus is again more complicated within the constrained optimization paradigm. Could privileges be pierced, at least in context-dependent, imperative situations, without plunging trials toward unacceptable illegitimacy? A targeted reform could perhaps strike an ideal balance. For example, imagine a narrow exception to Rule 501, one that allowed for the admissibility of a privileged statement if it possesses an unequivocal ability to truthfully resolve a material contested fact, is more probative on the point for which it is offered than any other available evidence, and is unlikely to broadly undermine the typically protected status relationship.<sup>246</sup> The targeted exception would substantially improve fact-finding in essential contexts, while also continuing to safeguard privileged status relationships in the vast majority of cases. And because the exception improves fact-finding while

<sup>242</sup> See Chandran, supra note 79, at 45 (noting that Rule 606(b)'s current protective formulation has "delegitimized the courts in the eyes of communities of color").

<sup>243</sup> See FED. R. EVID. 501.

<sup>244</sup> See L. Timothy Perrin, *The Perplexing Problem of Client Perjury*, 76 FORDHAM L. REV. 1707, 1712 (2007) ("Perhaps the most notable example of an area of evidence law that frustrates the search for truth is the law of privileges.").

<sup>245</sup> See id.

<sup>246</sup> In some fashion, then, the proposed privileges exception could resemble a (much) stricter version of Rule 807's residual hearsay exception. *See* FED. R. EVID. 807.

maintaining a baseline of trial legitimacy, it is a reform the constrained optimization model would embrace.

A cadre of rules centered around public policy goals raise similarly interesting issues amid a potential accuracy revolution in evidence law.<sup>247</sup> Consider, for instance, Rule 407. Generally stated, Rule 407 prohibits the introduction of evidence of a subsequent remedial measure—that is, evidence of a corrective action following an accident—if offered to suggest that a party was negligent for not already having that remedial measure in place prior to the incident.<sup>248</sup> In normative terms, Rule 407—and similar public policy rules like it—present a unique wrinkle. Certainly, Rule 407 is not grounded in accuracy. After all, a remedial action is often highly probative of earlier negligence.<sup>249</sup> Nor does Rule 407 carry any substantial efficiency benefit. Rather, Rule 407 is justified by a somewhat idiosyncratic legitimacy concern. As public policy, it is desirable to encourage actors to remedy dangerous conditions.<sup>250</sup> Shielding remedial measures from operative effect in the courtroom, in turn, eliminates a potential disincentive for remedying dangerous conditions.<sup>251</sup> Thus, proceedings that allow for the admission of subsequent remedial measures risk illegitimacy given their undermining of a public policy goal.

When analyzed under the lens of the two optimization models, Rule 407 again faces differing treatment. Given its fixed normative exchange, offering legitimacy in place of accuracy, Rule 407 comfortably fits on the optimal frontier of the multiobjective optimization model. But within the constrained optimization paradigm, the calculus becomes more nuanced. Does Rule 407's current formulation best facilitate truth? Or, alternatively, would reforming or removing Rule 407 improve verdict accuracy?

There is certainly room to explore Rule 407's elimination under the constrained optimization framework. For one, as noted, evidence

<sup>247</sup> Rules 407 through 411, for example, exist primarily to advance a substantive public policy goal. *See* FED. R. EVID. 407–411. These disparate goals range from remedying dangerous conditions to encouraging pretrial dispute resolution to protecting liability insurance companies. *See id.* This Article conceptualizes these public policy interests as a subset of evidence law's pursuit of fairness, as undermining the public policy goals in the courtroom proves juridically illegitimate.

<sup>248</sup> See FED. R. EVID. 407.

<sup>249</sup> See, e.g., Seigel, supra note 25, at 1007 (acknowledging that admitting subsequent remedial measures would "seem to assist the factfinder in determining historical truth").

<sup>250</sup> See Werner v. Upjohn Co., 628 F.2d 848, 857 (4th Cir. 1980) ("The rationale behind Rule 407 is that people in general would be less likely to take subsequent remedial measures if their repairs or improvements would be used against them in a lawsuit arising out of a prior accident.").

<sup>251</sup> See id. (detailing the basis of Rule 407's protection of subsequent remedial measures).

of subsequent remedial measures can be highly probative in a case.<sup>252</sup> At the same time, there is not an outsized likelihood that admitting subsequent remedial measures would lead to rampant illegitimacy. Although excising Rule 407 might vitiate one incentive to remedy dangerous conditions, will the rational actor truly leave a dangerous condition unattended—thereby risking additional accidents and law-suits—simply out of fear of adverse evidence in an earlier case? So long as rule makers believe that Rule 407's erasure could improve fact-finding without rendering trials unacceptably illegitimate, it's a reform the constrained optimization model would encourage. And so, the truth-centered revolution marches on.

Amid these revolutionary changes, however, it is important to note that not all public policy rules would warrant reform, even under the accuracy-inclined constrained optimization model. For example, both the multiobjective and constrained optimization models would equally maintain Rules 408 and 410 in their current form. As mentioned above, Rules 408 and 410 place a firewall around settlement negotiations in civil cases and plea negotiations in criminal cases, ensuring that statements made in pursuit of a pretrial resolution are not later used as evidence in the courtroom.<sup>253</sup> In normative terms, the justification underlying Rules 408 and 410 is twofold. First, and most importantly, the two evidentiary rules aid procedural efficiency, as the ability to hold open, transparent pretrial negotiations greatly increases the likelihood of an expedient disposition in a case. 254 Additionally, though less prominently, Rules 408 and 410 also carry a legitimacy rationale, as the weaponization of statements made in the course of good faith bargaining seems inherently unjust.<sup>255</sup> What Rules 408 and 410 do not aid, however, is accuracy. Even if a party makes an exceedingly probative admission—an admission that would enable fact finders to quickly pinpoint truth—it remains off limits at trial.

Analyzed under the optimization paradigms, Rules 408 and 410 easily pass muster under the multiobjective framework. What the two provisions sacrifice in accuracy is compensated in the form of substantial efficiency and legitimacy gains, thereby placing the evidentiary rules on the multiobjective framework's optimal frontier. The more

<sup>252</sup> Lev Dassin, Design Defects in the Rules Enabling Act: The Misapplication of Federal Rule of Evidence 407 to Strict Liability, 65 N.Y.U. L. REV. 736, 750 (1990) ("[A] subsequent remedial measure may be highly probative of fault.").

<sup>253</sup> See FED. R. EVID. 408, 410 (protecting statements made during pretrial negotiations).

<sup>254</sup> See, e.g., McHann v. Firestone Tire & Rubber Co., 713 F.2d 161, 166 n.10 (5th Cir. 1983) ("Rule 408 promotes efficiency by fostering out-of-court settlements.").

<sup>255</sup> See, e.g., Mueller, supra note 63, at 1080 ("[T]he purpose of Rule 410 . . . is to encourage fairness in the plea bargaining process . . . .").

noteworthy question is whether Rules 408 and 410 survive the constrained optimization model. Given that the two evidentiary restrictions undermine accuracy, does the truth-focused paradigm therefore call for their reform? Probably not. Although Rules 408 and 410 might, at times, undermine fact-finding, the two provisions both play an imperative role in facilitating the efficiency of our adjudicatory system. Of course, the vast majority of cases in both the civil and criminal contexts end in a pretrial resolution, and that system of plea and settlement deals requires Rule 408 and 410's protection as an existential predicate.<sup>256</sup> In technical terms, then, although the removal of Rules 408 and 410 might occasionally improve the accuracy of fact-finding, their erasure would plunge the adjudicatory system to an unacceptable level of inefficiency. The constrained optimization model exists to prevent exactly these excesses; where evidentiary rules constitute indispensable components for achieving a baseline of efficiency (or legitimacy), the search for truth must yield.<sup>257</sup> And so, because the pursuit of accuracy is not omnipotent but instead constrained, Rules 408 and 410 would remain intact.

Notwithstanding the concessions that the constrained optimization model affords legitimacy and efficiency, the totality of the above examples reveals a trend. It is no hyperbole to recognize that the constrained optimization model potentially brings revolution to evidence law. Pillars of our evidentiary regime face radical reinvention under the framework, with the constrained optimization model reformulating the hearsay rule, jury secrecy, and privileges doctrines. And those examples are just the beginning. No stone is left unturned as the Federal Rules of Evidence reorient toward more accurate outcomes—toward the discovery of truth.

#### CONCLUSION

Incoherence has a cost.<sup>258</sup> Although evidence law's conceptual uncertainty might initially seem a shortcoming buried deep within the foundation of our evidentiary regime, the stress fractures caused by that faulty foundation are becoming increasingly problematic.<sup>259</sup>

<sup>256</sup> See Bordenkircher v. Hayes, 434 U.S. 357, 364 (1978) (discussing the United States' "system which tolerates and encourages the negotiation of pleas" (quoting Chaffin v. Stynchcombe, 412 U.S. 17, 31 (1973))).

<sup>257</sup> See supra subsection II.B.2 (describing the constraints of the constrained optimization model).

<sup>258</sup> See Justin Driver & Emma Kaufman, *The Incoherence of Prison Law*, 135 HARV. L. REV. 515, 516 (2021) (recognizing the consequences of incoherence in prison law).

<sup>259</sup> See Nunn, supra note 1 ("Although evidence law has stagnated over the last half century, the world around it has continued to evolve. In particular, developments in both

Absent a clear hierarchy to guide policy tradeoffs, the Federal Rules of Evidence suffer from growing ineffectuality. The Federal Rules pursue accuracy at certain junctures, only to undercut the search for truth elsewhere; the code emphasizes the importance of trial legitimacy with certain rules, only to disregard procedural fairness altogether in a neighboring provision; the code at times prioritizes efficiency as imperative, only for efficiency to later become a complete nonfactor. Taken holistically, the Federal Rules' haphazard approach to normative tradeoffs causes the code to substantially underachieve its policy goals.<sup>260</sup>

The optimization models presented above return coherence to evidence law. Both frameworks, despite their idiosyncrasies, provide a sturdy baseline for our evidentiary regime. And even beyond theoretical clarity, the two paradigms provide a guide for ensuring that evidence law achieves its normative aims to the greatest extent possible. Put simply, they channel evidence law to its optimum.

the empirical and normative literatures testify to the continuing necessity of broad-scale evidentiary reform.").

<sup>260</sup> See Seigel, supra note 25, at 1039 ("The theoretical value of social scientific inquiry to the reform of evidence law is obvious.").