WHAT AUTHENTICATION REQUIRES

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When lawyers apply Federal Evidence Rule 901 on authentication, they face two questions. The first is a "what" question: of what facts does Rule 901 require the proponent of physical or documentary evidence to introduce "evidence sufficient to support a finding"? The second is a "how" question: how may the proponent of the evidence go about making the required showing? Lawyers and judges usually are preoccupied by the technical "how" question. This Article is about the neglected but more fundamental "what" question. In other words, it's about what it means for an item of evidence to be "authentic" in the first place. On this question, the Article challenges the conventional view. It argues that Rule 901 does not, as courts and scholars usually have supposed, require the proponent of the exhibit to introduce evidence sufficient to prove the facts on which the exhibit's relevance supposedly "depends." Rather, in keeping with the rule's text, Rule 901 requires the proponent of the exhibit only to introduce evidence sufficient to support whatever "claims" the proponent affirmatively makes for the evidence. In short, the Article proposes that Rule 901's critical locution—"is what the proponent claims it is"—be interpreted descriptively, rather than prescriptively.

INTRODUCTION

Federal Evidence Rule 901 on authentication is mostly about *how* to make the required showing of authenticity. It tells us, for example, that the proponent of a handwritten document may prove the identity of the document's author either through "[a] nonexpert's opinion that handwriting is genuine, based on a familiarity with it that was not acquired for the current litigation," or through "[a] comparison with an authenticated specimen by an expert witness or the trier of fact."[1] And it tells us that the proponent of a public record may prove the record's authenticity by showing that the record "is from the office where items of this kind are kept."[2]

By contrast, Rule 901 says very little about exactly *what* the evidence's proponent must prove. It says very little, in other words, about what it means for evidence to be authentic. It speaks to this question only in its very first sentence, where it says that the proponent of the evidence "must produce evidence sufficient to support a finding that the item *is what the proponent claims it is.*"[3] At first glance, the critical phrase—"is what the proponent claims it is"—might seem as though it provides a straightforward answer to the "what" question. It does not. It's ambiguous.

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1. FED. R. EVID. 901(b)(2), (3).
2. FED. R. EVID. 901(b)(7)(B).
3. FED. R. EVID. 901(a) (emphasis added).

Consider *People v. Walker*, for example.[4] Deonte Walker was charged with murder after allegedly shooting and killing Joshua Brown.[5] Brown was struck by eight separate bullets, one of which was later recovered from Brown's body by the medical examiner.[6] According to the medical examiner, the bullet recovered from Brown's body was "somewhere around a 9 millimeter, plus or minus."[7] Police detectives never recovered the murder weapon, but they did find eight nine-millimeter shell casings at the scene.[8] When the police searched Walker's cellular phone after his arrest, they found four photos of "various automatic and semi-automatic handguns."[9] One of the four photos showed Walker holding what appeared to be "a Tec-9 [nine-millimeter handgun] and another semi-automatic handgun of some sort."[10]

When the government offered these gun photos as evidence at Walker's murder trial, Walker's lawyer objected.[11] He argued that the government had failed even to show that the guns depicted in the photos "[were] real guns," much less that any of them was the gun "used in this incident."[12] The trial judge rejected Walker's argument and admitted the photos.[13] What mattered, said the trial judge, was merely that photos had in fact been recovered from Walker's phone and that the guns shown in the photos were "of a character which could have been used" in Brown's murder.[14] After Walker was convicted, he renewed his evidentiary argument on appeal.[15] The California Court of Appeal rejected Walker's argument and affirmed his conviction.[16] The court said: "The gun photos found on defendant's phone were properly authenticated as just that—gun photos found on defendant's phone."[17]

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4. People v. Walker, No. B283945, 2018 WL 6039908 (Cal. Ct. App. Nov. 19, 2018).
5. *Id.* at *1.
6. *Id.* at *2.
7. *Id.*
8. *Id.*
9. *Id.* at *1.
10. *Id.* at *3. Incriminating photographs like the ones on Walker's phone are an increasingly common component of the government's evidence in criminal cases. *See* Shaila Dewan & Robert Gebeloff, *How Gun Violence Spread Across One American City*, N.Y. TIMES (May 21, 2024), https://www.nytimes.com/2024/05/20/us/gun-violence-shootings-columbus-ohio.html?searchResultPosition=1 [https://perma.cc/R6UF-JBYD] (quoting Columbus prosecutor Euripides Chimbidis, who said, "Almost any case I have that's a murder, aggravated robbery, felonious assault with a shooting, when we get the phone dumps there's stuff with them posing with guns or threatening to do harm to people. It's a constant.").
11. *Walker*, 2018 WL 6039908, at *5.
12. *Id.*
13. *Id.*
14. *Id.*
15. *Id.* at *4–5.
16. *Id.* at *8 n.11.
17. *Id.*

Was the court right? It depends on how you interpret the phrase "what the proponent claims it is."[18] At least two interpretations of this phrase are possible. The first interpretation, which I'll call the "prescriptive interpretation," would require the proponent of physical or documentary evidence to introduce "evidence sufficient to support a finding [by a preponderance of the evidence]" as to every fact on which the relevancy of the evidence depends.[19] In Walker's case, this prescriptive interpretation would, for starters, require the government to introduce evidence sufficient to support a finding by a preponderance of the evidence that each of the photographs "was a fair and accurate representation of that which it purported to depict."[20] After all, if what the photos depicted never really happened—if Walker never actually possessed a nine-millimeter handgun—then the photos aren't relevant.[21]

But the prescriptive interpretation requires more, too, at least in principle. In Walker's case, the relevancy of the gun photos appears to "depend" not just on whether the photographs are accurate but also on whether one of the guns shown in the photos really was the gun "used in [the] incident."[22] After all, if in fact none of the guns shown in the photos were the gun used in Joshua Brown's murder, then the photos wouldn't be relevant. On the prescriptive reading, then, authentication of the gun photos would have required the government to introduce evidence sufficient to support a finding by a preponderance that one of the guns shown in the photos was the very gun used in Brown's murder.[23] Since the government lacked such evidence, the gun photos would have been excluded.

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18. FED. R. EVID. 901(a). In *Walker*, of course, the court didn't apply Federal Evidence Rule 901. It applied California law. But California law, as interpreted by the *Walker* court, demands just what Rule 901 does, namely, "a prima facie showing that the item of evidence is what the proponent of evidence claims it is." *Walker*, 2018 WL 6039908, at *8 n.11; *see also* CAL. EVID. CODE § 1400 ("Authentication of a writing means (a) the introduction of evidence sufficient to sustain a finding that it is the writing that the proponent of the evidence claims it is or (b) the establishment of such facts by any other means provided by law.").

19. *See infra* Part I.A. For the interpolated proposition that the "finding" referenced in Rule 901(a) is a finding by a preponderance of the evidence, *see* Huddleston v. United States, 485 U.S. 681, 690 (1988) ("In determining whether the Government has introduced sufficient evidence to meet Rule 104(b), the trial court neither weighs credibility nor makes a finding that the Government has proved the conditional fact by a preponderance of the evidence. The court simply examines all the evidence in the case and decides whether the jury could reasonably find the conditional fact—here, that the televisions were stolen—by a preponderance of the evidence."); *see also* GEORGE FISHER, EVIDENCE 895 (3d ed. 2013) ("The Supreme Court's elaboration of Rule 104(b)'s standard in *Huddleston* . . . presumably applies in [the authentication] context as well.").

20. People v. Price, 80 N.E.3d 1005, 1011 (N.Y. 2017).

21. *See id.* (excluding photograph obtained by government from the internet that appeared to show the defendant holding a firearm).

22. *Walker*, 2018 WL 6039908, at *5.

23. *Cf.* United States v. Johnson, 637 F.2d 1224, 1247–48 (9th Cir. 1980) (assuming that the admissibility of an axe recovered by police from defendant's residence five days after a charged assault under Rule 901 depended on whether the government's evidence was sufficient to support a finding by a preponderance that the axe recovered by police was the very axe used in the assault).

The appeals court in *Walker* didn't apply the prescriptive interpretation. Instead, it appears to have applied what I'll call the "descriptive interpretation."[24] Under the descriptive interpretation, the trial judge doesn't tell the proponent of the evidence what he or she "must claim" the evidence is.[25] The judge doesn't construct the proponent's "claim" for him or her, in other words. Rather, under the descriptive interpretation, the critical phrase "what the proponent claims" is merely descriptive.[26] It just refers to whatever the proponent of the evidence actually happens to "claim" about the evidence through the sponsoring witness.[27] In Walker's case, the government "claimed" of the photos only that they were "gun photos found on [Walker's] phone."[28] So that was all the government was required to show.[29]

Which of these two interpretations is right? The courts appear to be divided. In some cases—cases like Walker, for example—courts appear to apply the descriptive interpretation.[30] But most courts appear to apply the prescriptive interpretation.[31] Most courts, that is, appear to hold that Rule 901 requires the

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24. *See infra* Parts II.A.–B.

25. *See* Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F. Supp. 1190, 1220–21 (E.D. Pa. 1980) (using the phrase "must claim" in formulating the prescriptive interpretation), *aff'd in part, rev'd in part sub nom. In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574 (1986).

26. *See infra* Part II, pp. 66–67.

27. Lexington Ins. Co. v. W. Pa. Hosp., 423 F.3d 318, 329–30 (3d Cir. 2005) ("[F]or authentication purposes, Rule 901(a) does not require the document to be probative of a particular fact, but requires only that there be sufficient evidence for a jury to conclude that the document 'is what its proponent claims it to be.'" (quoting FED. R. EVID. 901(a))).

28. People v. Walker, No. B283945, 2018 WL 6039908, at *8 n.11 (Cal. Ct. App. Nov. 19, 2018).

29. *See id.* at *8.

30. *Id.* at *8 n.11; *see also, e.g.*, United States v. Banks, 43 F.4th 912, 918 (8th Cir. 2022) (holding that videos and photographs that showed the defendant handling firearms were sufficiently authenticated by testimony that "the exhibits had been created within the relevant time frame and stored on [the defendant's] cellular phones"); United States v. Turner, 934 F.3d 794, 798 (8th Cir. 2019) ("[W]e hold that the government met its burden of 'produc[ing] evidence sufficient to support a finding' that the items were what the government claimed they were (i.e., text messages and photographs from Turner's phone)." (quoting FED. R. EVID. 901(a))); Burgess v. Premier Corp., 727 F.2d 826, 835–36 (9th Cir.1984) (holding that evidence found in the defendant's warehouse was adequately authenticated simply "by the fact that they were found in [the defendant's] warehouse"); State v. Pellicer, No. 2 CA-CR 2009-0163, 2009 WL 5062046, at *2 (Ariz. Ct. App. Dec. 24, 2009) (rejecting the defendant's claim that the government was required to show, as a condition of authentication, that the proffered knives were the ones used to assault the victim: "to lay a proper foundation for their admission, the state had only to show they were the same knives found at the scene"); Commonwealth v. Edwards, 903 A.2d 1139, 1156 (Pa. 2006) ("This Court has long held that the prosecution need not establish that a particular weapon was actually used in the commission of a crime in order for it to be admissible at trial.").

31. *See, e.g.*, United States v. Almonte, 956 F.2d 27, 29 (2d Cir. 1992) (holding that since the relevance of the witness's notes depended on whether they "reflect[ed] the witness's own words rather than the note-taker's characterization," and since the defendant had failed to prove that the notes captured the witness's own words, the notes were inadmissible under Rule 901); Bodrey v. Bodrey, 269 S.E.2d 14, 15 (Ga. 1980) ("In the present case, authentication required, not proof of the letter's authorship, but proof of its relevancy for explaining the appellee's subsequent conduct toward the appellant."); Commonwealth v. Purdy, 945 N.E.2d 372, 379 (Mass. 2011) ("[B]ecause the relevance and admissibility of the communications depended on their being authored by the defendant, the judge was required to determine whether the evidence was sufficient for a reasonable jury to find by a preponderance of the evidence that the defendant authored the

proponent of physical or documentary evidence to prove all of those facts on which "the relevance . . . of [the exhibit] depend[s]."[32] In cases where the proffered exhibit is a screenshot of a text message, for example, courts generally require the proponent to introduce "evidence sufficient to support a finding" as to the author's identity, regardless of whether the sponsoring witness makes any affirmative "claim" about the author's identity.[33] Likewise, in cases where the proffered exhibit is a photograph posted on social media, courts generally require the proponent to prove that the photo is an "accurate depiction" of whatever it depicts, regardless of whether the sponsoring witness actually makes any affirmative "claim" that the photograph is accurate.[34]

The trouble with the cases isn't just that the courts are divided, though. The trouble is that the courts usually don't even acknowledge that they're making a choice. They don't even acknowledge, that is, that the critical phrase—"is what the proponent claims it is"—is ambiguous. In case after case, courts devote meticulous attention to the question of *how*, exactly, the exhibit's proponent might go about proving what they're required to prove.[35] Courts devote attention, too, to questions about the *degree* of scrutiny required by Rule 901—to questions like whether "courts should apply greater scrutiny when authenticating information from social networks."[36] When it comes to

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e-mails."); Angleton v. State, 971 S.W.2d 65, 70 (Tex. Crim. App. 1998) (The question of authentication arises when the relevance of proffered evidence "depends upon its identity, source, or connection with a particular person, place, thing or event.").

32. *Purdy*, 945 N.E.2d at 379.

33. *See* State v. Eleck, 23 A.3d 818, 821, 824 (Conn. Ct. App. 2011) (holding that authentication would require the proponent of the evidence to show "that the proffered [Facebook] messages did, in fact, come from [their apparent author] and not simply from her Facebook account," despite the fact that the sponsoring witness claimed only "that he downloaded and printed the exchange of [Facebook] messages directly from his own computer"); *aff'd on other grounds*, 100 A.3d 817 (Conn. 2014); Griffin v. State, 19 A.3d 415, 418 (Md. 2011) (holding that authentication would require the proponent of the evidence to prove the identity of the person who made the MySpace posting, despite the fact that the sponsoring witness explicitly disavowed ("I can't say that") any claim to know the poster's identity); *see also* Ira P. Robbins, *Writings on the Wall: The Need for an Authorship-Centric Approach to the Authentication of Social-Networking Evidence*, 13 MINN. J.L. SCI. & TECH. 1, 29–30 (2012) ("Addressing authorship is critical when authenticating evidence gathered from social-networking sites."); Michael D. Dean, *Authenticating Social Media in Evidentiary Proceedings*, 28 CRIM. JUST. 49, 50 (2014) ("Authentication of social media content requires some evidence (1) that the content came from an account associated with the purported author, and (2) of author identity.").

34. *See* Lorraine v. Markel Am. Ins. Co., 241 F.R.D. 534, 561 (D. Md. 2007) ("An original digital photograph may be authenticated the same way as a film photo, by a witness with personal knowledge of the scene depicted who can testify that the photo fairly and accurately depicts it."); People v. Beckley, 110 Cal. Rptr. 3d 362, 366 (Cal. Ct. App. 2010), *as modified on denial of reh'g* (June 24, 2010) (holding that a photograph of witness "flashing a gang sign" was not adequately authenticated where the sponsoring witness, a police detective, testified only that "he downloaded the photograph from [the witness's] home page on the internet website MySpace"; the testimony was insufficient to support a finding that the photograph was "an accurate depiction of [the witness] actually flashing a gang sign").

35. *See*, *e.g.*, *Lorraine*, 241 F.R.D. at 541–62; State v. Manuel T., 254 A.3d 278, 293–98 (Conn. 2020); *Griffin*, 19 A.3d at 418–28; State v. Hannah, 151 A.3d 99, 104–08 (N.J. App. Div. 2016); Tienda v. State, 358 S.W.3d 633, 639–47 (Tex. Crim. App. 2012).

36. *Hannah*, 151 A.3d at 105; *see also*, *e.g.*, *Griffin*, 19 A.3d at 424 (raising question whether "electronically stored information on social networking sites [requires] greater scrutiny because of the heightened possibility for manipulation by other than the true user or poster"); *Manuel T.*, 254 A.3d at 295

identifying the facts as to which Rule 901 requires "evidence sufficient to support a finding," however, the courts just recite the rule's formula—"is what the proponent claims it is"—and assume that everybody knows what it means.[37]

Evidence professors don't do much better. The evidence textbooks, in their chapters on authentication, devote most of their attention to "how" questions––how to prove the identity of a document's author, for example, and how to prove a chain of custody.[38] They mostly ignore the "what" question. The prevailing approach among law professors was nicely described by Professor David Schwartz (who is himself a co-author of a leading casebook[39]) in a 2011 law review article: "Semester after semester, evidence professors like myself spend two to four class hours on foundation, salting in the phrase, 'evidence sufficient to support a finding that the matter in question is what its proponent claims,' hoping the repetition of that enigmatic phrase will produce enlightenment. But it doesn't."[40]

This Article's first, very modest objective is just to move the "what" question to the foreground. Granted, the "how" question often is more interesting.[41] But the "what" question is not dispensable. (To belabor the obvious, a lawyer can't adequately address the question of *how* to prove what they're required to prove until they know what they're required to prove.) Nor is the "what" question easy or uncontroversial. Rather, as this Article will show, Rule 901's formula for resolving this question—the phrase "what the proponent claims it is"—admits of at least two very different interpretations. Neither of these two interpretations is obviously wrong.

(concluding that "electronic communications, such as text messages, are subject to the same standard of authentication . . . as other forms of evidence").

37. *See*, *e.g.*, *Manuel T.*, 254 A.3d at 294 (quoting Conn. Code Evid. § 9-1(a)); *Griffin*, 19 A.3d at 422 (quoting Md. Rule 5–901); *Tienda*, 358 S.W.3d at 638 (quoting Tex. Evid. R. 901).

38. *See*, *e.g.*, FISHER, *supra* note 19, at 894–913; RICHARD O. LEMPERT ET AL., A MODERN APPROACH TO EVIDENCE: TEXT, PROBLEMS, TRANSCRIPTS AND CASES 1193–1285 (4th ed. 2011); DEBORAH JONES MERRITT & RIC SIMMONS, LEARNING EVIDENCE: FROM THE FEDERAL RULES TO THE COURTROOM 909–928 (5th ed. 2022).

39. RONALD J. ALLEN ET AL., EVIDENCE: TEXT, PROBLEMS, AND CASES (4th ed. 2006).

40. David S. Schwartz, *A Foundation Theory of Evidence*, 100 GEO. L. J. 95, 101 (2011) (quoting FED. R. EVID. 901(a)).

41. Recent articles addressed primarily to the "how" question include, among others, Rebecca A. Delfino, *Deepfakes on Trial: A Call to Expand the Trial Judge's Gatekeeping Role to Protect Legal Proceedings from Technological Fakery*, 74 HASTINGS L.J. 293 (2023); Danielle Orr, *You Can't Trust Everything on the Internet: A Look into Texas' and Maryland's Approach of Social Media Authentication*, 30 CATH. U. J.L. & TECH. 161 (2021); Maximilian Bungert, *Do It for the Snap: Different Methods of Authenticating Snapchat Evidence for Criminal Prosecutions*, U. ILL. J.L., TECH. & POL'Y 121 (2021); Linda Greene, *Mining Metadata: The Gold Standard for Authenticating Social Media Evidence in Illinois*, 68 DEPAUL L. REV. 103 (2018); Paul W. Grimm et al., *Authentication of Social Media Evidence*, 36 AM. J. TRIAL ADVOC. 433 (2013); Gregory P. Joseph, *Authentication: What Every Judge and Lawyer Needs to Know About Electronic Evidence*, 99 JUDICATURE 48 (2015); G. Michael Fenner, *The Admissibility of Web-Based Evidence*, 47 CREIGHTON L. REV. 63 (2013); Richard W. Fox, *The Return of "Voodoo Information": A Call to Resist a Heightened Authentication Standard for Evidence Derived from Social Networking Websites*, 62 CATH. U. L. REV. 197 (2012).

The Article's second objective is to show that one of these two interpretations—the descriptive interpretation—is the better one. In articulating and defending the descriptive interpretation, the Article won't return to first principles. It won't discuss, for example, what would be required by way of authentication in an ideal evidence code. Nor will the Article propose any legislative changes to Rule 901. Rather, the Article will take the existing federal evidence rules, and the text of Rule 901 in particular, as given. The Article will argue simply that the descriptive interpretation is the best way of making sense of Rule 901 in its current form.

The Article's argument will proceed in two parts. Part I of the Article will argue that the prescriptive interpretation is ultimately incoherent. The prescriptive interpretation, as I've said, requires the proponent of the evidence to introduce evidence sufficient to support a finding as to each of the facts on which the relevance of the item of evidence supposedly "depends." The trouble with this approach, as other scholars have recognized too, is that this kind of "conditional relevancy" is a myth.[42] The bare logical relevancy of an item of evidence never really depends on whether some fact is true by a preponderance. It only ever depends on whether the fact *might be* true. As a consequence, the prescriptive interpretation, if applied across the board, would produce results that are incompatible with the federal evidence rules' basic conception of relevancy. In developing this critique of the prescriptive approach, Part I will devote particular attention to Professor David Schwartz's intriguing, if ultimately unsuccessful, 2011 defense of Rule 104(b) on conditional relevancy.[43]

Part II of the Article will argue that the descriptive interpretation, despite seeming at first to demand too little of the evidence's proponent, gets Rule 901 right. This Part's central claim is that the authentication requirement is not, as scholars have usually assumed, "an aspect of relevancy."[44] Rather, authentication is about *reliability*. In developing this central claim, I will turn to *Daubert v. Merrell Dow Pharmaceuticals*, where the Supreme Court treated questions of evidentiary "reliability" as fundamentally distinct from questions of relevancy or "helpfulness."[45] I will argue that the authentication requirement is the counterpart of the federal evidence rules' other reliability requirements, namely, the *Daubert* test for expert testimony (as codified in Rule 702) and Rule 602's personal knowledge requirement. And I'll argue that the authentication requirement, like these counterparts, just requires the evidence's proponent to support whatever claims he or she *actually* makes. It doesn't require the trial

42. *See, e.g.*, Vaughn C. Ball, *The Myth of Conditional Relevancy*, 14 GA. L. REV. 435, 461 (1980); Ronald J. Allen, *The Myth of Conditional Relevancy*, 25 LOY. L.A. L. REV. 871, 884 (1992); Dale A. Nance, *Conditional Relevance Reinterpreted*, 70 B.U. L. REV. 447, 453 (1990).

43. Schwartz, *supra* note 40.

44. 5 CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, FEDERAL EVIDENCE § 9:2 at 324 (4th ed. 2013).

45. 509 U.S. 579, 590–91 (1993).

judge to construct or constitute the object of the reliability analysis for the evidence's proponent. In short, I'll argue that Rule 901's critical locution—"what the proponent claims it is"—is descriptive, rather than prescriptive.

I. THE PRESCRIPTIVE INTERPRETATION

The would-be interpreter of Rule 901 immediately faces a conundrum. On the one hand, the Advisory Committee's official note to Rule 901 appears to provide a straightforward answer to the "what" question.[46] It as good as says that the proponent of an exhibit must introduce evidence sufficient to support a finding as to every fact on which the relevance of the proffered exhibit "depends."[47] On the other hand, when the interpreter tries to apply this elegant-sounding formula, they get results that are starkly inconsistent with what courts actually do.[48] This conundrum probably explains in part the reticence of judges, lawyers, and law professors on this topic.

The first step toward getting past this conundrum is to recognize that the Advisory Committee's Note simply is wrong. In this Part, I'll argue that the prescriptive, conditional-relevancy-based interpretation of Rule 901, despite its seeming elegance, and despite its compelling support in the legislative history,[49] is incoherent. Worse, it would produce results that are inconsistent with the federal evidence rules' fundamental conception of logical relevancy.

A. Why Rule 104(b) appears, at first glance, to answer the "what" question

For their part, the drafters of Rule 901 didn't entertain any doubts about the answer to the "what" question. They thought they had answered this question in another rule, Rule 104(b). In their official note to Rule 901, the Advisory Committee said that "[t]his requirement of showing authenticity or identity falls in the category of relevancy dependent upon fulfillment of a condition of fact and is governed by the procedure set forth in Rule 104(b)."[50] As far as the committee was concerned, then, and as far as some evidence scholars still are concerned, Rule 901 itself doesn't actually *impose* an

46. FED. R. EVID. 901 advisory committee's note.

47. *See id.* ("This requirement of showing authenticity or identity fails in the category of relevancy dependent upon fulfillment of a condition of fact and is governed by the procedure set forth in Rule 104(b).").

48. *See infra* text accompanying notes 72–78.

49. The Advisory Committee's Note is, of course, legislative history, albeit of a particularly high order. It is not law. *See* United States v. Carey, 120 F.3d 509, 512 (4th Cir. 1997) ("[T]he Advisory Committee Note is not the law; the rule is.").

50. FED. R. EVID. 901 advisory committee's note.

authentication requirement.[51] Rule 901 just explains how to go about satisfying the authentication requirement that is implicit in Rule 104(b).[52]

The relationship between authentication and Rule 104(b) is complicated, as is the whole idea of "conditional relevancy." The best place to start is with the distinction between ordinary relevancy and conditional relevancy. Ordinary relevancy is about the relationship between two facts: (1) the "evidentiary fact," which in the usual case is just "the offered item of evidence itself,"[53] and (2) a "fact [that] is of consequence in determining the action."[54] Evidence is relevant when the evidentiary fact has, in the words of Rule 401, "any tendency to make [the] fact [of consequence] more or less probable than it would be without the evidence."[55] The judge identifies the probabilistic "tendencies" of the evidentiary fact by applying general "principles evolved by experience or science . . . to the situation at hand."[56] Against the background of these general principles, the judge decides whether the existence of the evidentiary fact makes

51. *See* LEMPERT ET AL., *supra* note 38, at 1199–1200 ("Logically, FRE 901(a) is superfluous. It simply says that the 'requirement of authentication or identification' imposes no demand beyond that already embodied in FRE 104(b). FRE 901(a) does not define 'authentication' or 'identification,' or specify when they are required[.] [I]t merely restates the general rule in FRE 104(b), and FRE 901(b) illustrates ways of establishing the necessary foundation when it is required."); *see* MUELLER & KIRKPATRICK, *supra* note 44 (explaining that "the terms of Article IX . . . do not in fact create or impose [an authentication requirement], but . . . rather assume that the requirement exists").

52. LEMPERT ET AL., *supra* note 38, at 1200; Lorraine v. Markel Am. Ins. Co., 241 F.R.D. 534, 539 (D. Md. 2007) (quoting United States v. Branch, 970 F.2d 1368, 1370 (4th Cir. 1992)) (explaining that "[r]esolution of whether evidence is authentic . . . is governed by the procedure set forth in Federal Rule of Evidence 104(b) 'relating to matters of conditional relevance generally'"); *cf.* MUELLER & KIRKPATRICK, *supra* note 44 ("[I]t is actually Rule 401 and Rule 402 that impose the requirement to authenticate, for these provisions define relevancy and make it a condition of admissibility.").

53. Schwartz, *supra* note 40, at 135; *cf.* DAVID A. LAGNADO, EXPLAINING THE EVIDENCE: HOW THE MIND INVESTIGATES THE WORLD 140 (2022) ("The paradigm case of testimonial evidence is when a witness makes a specific claim about something they have observed 'first hand,' such as a witness report that she saw the suspect loitering at the crime scene.").

54. FED. R. EVID. 401(b); *see also* ALLEN ET AL., *supra* note 39, at 119 (using term "evidentiary fact" and defining relevance in terms of the relationship between the evidentiary fact and a fact of consequence); *see also* Susan Haack, *Mind the Analytical Gap! Tracing a Fault Line in Daubert*, 61 WAYNE L. REV. 653, 663–64 (2016) ("Relevance is a two-place relation—a relation between some proposition, claim, evidence, testimony, consideration, point, fact, etc., and some conclusion, decision, etc."); *see also* JAMES FITZJAMES STEPHEN, DIGEST OF THE LAW OF EVIDENCE 2 (8th ed. 1907) ("The word 'relevant' means that any two facts to which it is applied are so related to each other that according to the common course of events one either taken by itself or in connection with other facts proves or renders probable the past, present, or future existence . . . of the other.").

55. FED. R. EVID. 401(a).

56. FED. R. EVID. 401 advisory committee's note; *see also* FED. R. EVID. 201 advisory committee's note (explaining that neither the judge nor the jury could decide what inferences to draw from the evidence adduced at trial without making use of "hundreds or thousands" of other facts); *see also* DONALD GILLIES, PHILOSOPHICAL THEORIES OF PROBABILITY 162 (2000) (explaining that intersubjective probabilities are conditional or relational, but that the conditions necessarily include background knowledge from which the probabilities are judged); *see also* State v. Manning, 224 N.W.2d 232, 236 (Iowa 1974) (quoting Purcell v. Tibbies, 69 N.W. 1120, 1121 (Iowa 1897)) (explaining that juries rely on "reason and . . . those experiences which are common to men generally" in deciding what inferences to draw from the evidence adduced at trial).

the existence of the fact of consequence more or less probable than it would be without the evidence.[57]

If ordinary logical relevancy is a "two-place relation"—between the evidentiary fact and a fact of consequence—so-called "conditional relevancy" is a three-place relation.[58] Relevancy is conditional, according to Rule 104(b), "[w]hen the relevance of evidence depends on whether a fact exists."[59] Relevancy is conditional, in other words, when the required probabilistic "tendency" of the evidentiary fact—its tendency to make the fact of consequence more or less probable than it otherwise could be—depends on the existence of some third fact, a "predicate" fact.[60]

To illustrate what it meant by "Relevance That Depends on a Fact," the Advisory Committee used examples.[61] The committee's first example was about proof of notice: "when a spoken statement is relied upon to prove notice to *X*, it is without probative value unless *X* heard it."[62] In this example, the evidentiary fact is just the fact that the "spoken statement" was uttered at all.[63] The fact of consequence is the fact that *X* was put on notice.[64] And the predicate fact is the fact that *X* heard the spoken statement.[65] What makes this notice example an instance of "relevancy conditioned on fact" is that the probabilistic tendency of the evidentiary fact—its tendency to make the fact of consequence more probable—depends on the existence of a third fact, namely, the fact that *X* actually heard the statement.[66]

Rule 104(b) doesn't just identify the phenomenon of conditional relevance, of course. It also prescribes the procedure that courts must follow when an item of evidence is conditionally relevant. Rule 104(b) says that when an item of evidence is conditionally relevant, it will be admissible only if the proponent of the evidence also introduces evidence "sufficient to support a finding" as to the predicate fact or facts on which the relevancy of the proffered evidence depends.[67] By "sufficient to support a finding," the rule means sufficient to

57. FED. R. EVID. 401 advisory committee's note.

58. *See* Haack, *supra* note 54, at 663–64 ("Relevance is a two-place relation—a relation between some proposition, claim, evidence, testimony, consideration, point, fact, etc., and some conclusion, decision, etc.").

59. FED. R. EVID. 104(b).

60. *Cf.* Richard D. Friedman, *Conditional Probative Value: Neoclassicism Without Myth*, 93 MICH. L. REV. 439, 457 (1994) ("Just as a determination of probative value requires a comparison of two probability assessments, a determination of conditional probative value requires a comparison of two determinations of probative value — [sic] one in which the base of information includes the predicate, and one in which the base does not include the predicate.").

61. FED. R. EVID. 104(b) (section title).

62. FED. R. EVID. 104 advisory committee's note (emphasis added).

63. *See id.*

64. *See id.*

65. *See id.*

66. *See id.*

67. FED. R. EVID. 104(b).

support a finding "by a preponderance of the evidence," as the Supreme Court recognized in *Huddleston v. United States*.[68]

What, if anything, has this got to do with authentication? As the drafters recognized, the relevancy of physical and documentary evidence often appears to be "conditional" in just the way that Rule 104(b) contemplates.[69] Indeed, the second of the Advisory Committee's examples of conditional relevancy—after the "notice" example—is an authentication example.[70] The Committee's official note to Rule 104(b) says: "if a letter purporting to be from *Y* is relied upon to establish an admission by him, it has no probative value unless *Y* wrote or authorized it."[71] Since, according to the Committee, the probative value of the proffered letter "depends" on who wrote it, Rule 104(b) would require the proponent of the letter to introduce "evidence . . . sufficient to support a finding" as to the letter's authorship.[72]

Against this background, it's easy to see why the Advisory Committee would have supposed that the meaning of the phrase "what its proponent claims it is" was fixed by Rule 104(b). In cases like the authorship example, Rule 104(b) already requires the proponent of the exhibit to introduce evidence sufficient to support a finding as to every fact on which the relevance of the exhibit supposedly depends.[73] It seems reasonable to suppose, then, that Rule 901, by requiring the proponent to introduce evidence sufficient to support a finding that the exhibit "is what the proponent claims it is," just confirms what already is implicit in Rule 104(b). On this view, Rule 104(b) answers the "what" question about authentication. It tells us what facts the proponent of the exhibit must prove up. Rule 901, by contrast, just answers the "how" question. It tells us how the exhibit's proponent is to go about satisfying the authentication requirement that is implicit in Rule 104(b).[74]

I'll refer to this conditional-relevancy interpretation of Rule 901 as the "prescriptive interpretation." It is "prescriptive" because this interpretation doesn't permit the proponent of the exhibit to decide for themselves what they "claim" about the exhibit. Rather, the content of the proponent's "claim" is prescribed for them by Rule 104(b).[75] If the probative value of a letter depends

68. *See* 485 U.S. 681, 690 (1988).

69. *See* FED. R. EVID. 901 advisory committee's note ("This requirement of showing authenticity or identity fails in the category of relevancy dependent upon fulfillment of a condition of fact . . . ."); *see also* 1 MUELLER & KIRKPATRICK, *supra* note 44, § 1:34 at 231 ("Clearly the most typical instance of conditional relevancy involves the problem of authentication . . . .").

70. FED. R. EVID. 104 advisory committee's note.

71. *Id.* (emphasis added).

72. *Id.*

73. *See* FED. R. EVID. 104(b).

74. LEMPERT ET AL., *supra* note 38, at 1200.

75. *See* Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F. Supp. 1190, 1220–21 (E.D. Pa. 1980) (articulating the defendants' interpretation of Rule 901, under which Rule 901 tells the proponent of the evidence what they "must claim" about the evidence) *aff'd in part, rev'd in part sub nom. In re* Japanese Elec.

on who wrote it, for example, then it won't avail the proponent of the letter to insist that they are not making any explicit claims about the letter's authorship.[76] It won't avail them, for example, to point out that the sponsoring witness hasn't actually said anything about the letter's authorship but instead has testified only about where and when she found it. On this view, then, the word "claim" in Rule 901 is prescriptive, rather than descriptive.

Evidence scholars appear generally to have accepted the prescriptive, conditional-relevancy-centered interpretation of Rule 901, despite their intermittent doubts about the coherence of the concept of conditional relevancy.[77] The McCormick evidence treatise, for example, says that the proponent's theory "as to why [the exhibit] is relevant determines what the proponent claims [the exhibit] is."[78] Likewise, another popular hornbook says: "[A]uthentication is a form of conditional relevance. The authenticating evidence supplies the factual predicate that makes the [exhibit] relevant."[79] Professor Richard Lempert's textbook takes the same view. It says that Rule 901(a) is superfluous, since 104(b) would require the proponent to prove that the evidence is what he or she claims it to be anyway.[80]

Courts, too, often appear to apply the prescriptive interpretation of Rule 901.[81] Courts sometimes say, for example, that if "the relevance . . . of the [proffered] communications depend[s] on their being authored by the defendant," then "the judge [is] required to determine whether the evidence [is] sufficient for a reasonable jury to find by a preponderance of the evidence that the defendant authored the [communications]."[82] Likewise, courts sometimes

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Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574 (1986).

76. *See* Commonwealth v. Purdy, 945 N.E.2d 372, 379 (Mass. 2011) ("[B]ecause the relevance and admissibility of the communications depended on their being authored by the defendant, the judge was required to determine whether the evidence was sufficient for a reasonable jury to find by a preponderance of the evidence that the defendant authored the e-mails.").

77. *See* authorities cited *supra* note 42.

78. *See* 2 MCCORMICK ON EVIDENCE § 221 at 82–83 (Robert P. Mosteller et al. eds., 8th ed. 2020) ("The proponent's assertion as to why the writing is relevant determines what the proponent claims the writing is, typically that it has some specific connection to a person or organization, whether through authorship or some other relation. It is this connection that must be proved to authenticate the writing.").

79. GRAHAM C. LILLY, DANIEL J. CAPRA, & STEPHEN A. SALTZBURG, PRINCIPLES OF EVIDENCE § 3.4 at 62 (6th ed. 2012); *see also id.* § 3.3 at 50 ("Generally speaking, if an item of evidence is not authentic, it is not relevant.").

80. LEMPERT ET AL., *supra* note 38, at 1199–1200.

81. *See, e.g.*, SMS Audio, LLC v. Belson, No. 16-81308-CIV, 2017 WL 1533971, at *3 (S.D. Fla. Mar. 20, 2017) ("The type of testimony or circumstantial evidence necessary to authenticate evidence depends on the purpose for which the evidence is introduced."); People v. Goldsmith, 326 P.3d 239, 245 (Cal. 2014) ("The first step is to determine the purpose for which the evidence is being offered. The purpose of the evidence will determine what must be shown for authentication, which may vary from case to case."); People v. Price, 80 N.E.3d 1005, 1014–15 (N.Y. 2017) (Rivera, J., concurring) ("[W]hether the People's evidence was sufficient to authenticate the social media digital image depends on the purpose for which it was offered.").

82. Commonwealth v. Purdy, 945 N.E.2d 372, 379 (Mass. 2011); *see also* Breanne M. Democko, *Social Media and the Rules on Authentication*, 43 U. TOL. L. REV. 367, 380 (2012) ("[A] letter allegedly written by the

say that if the probative value of a written communication instead depends on whether a particular person *read* the communication, then authentication requires the proponent of the evidence to introduce evidence sufficient to support a finding by a preponderance that the person read the communication.[83] Where photographs and videos are concerned, too, courts appear to use conditional relevancy to define the content of the proponent's "claim."[84] The proponent of a photograph or video usually is required to prove that the photograph or video is "a fair and accurate representation of that which it purport[s] to depict."[85] But a showing of fairness and accuracy is required only if the probative value of the photograph or video depends on whether it is an accurate depiction.[86]

Cases like these appear to provide support for the prescriptive, conditional-relevancy-based interpretation of the phrase "what the proponent claims it is."[87] In other cases, though, this interpretation of Rule 901 produces results that are both counterintuitive and contrary to precedent.

Take *People v. Walker*.[88] In *Walker*, recall, defendant Walker objected to the introduction of photos from his phone that appeared to show him holding several different handguns, any one of which "may have been the murder weapon."[89] According to Walker's attorney, the photos weren't adequately authenticated, since the government hadn't shown by a preponderance that any of the guns in the photos actually was the very gun "used in [the] incident."[90]

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defendant and offered to show that the defendant confessed to a murder has probative value only if the letter meets some minimal showing that it was actually written by the defendant.").

83. *See, e.g.*, Bodrey v. Bodrey, 269 S.E.2d 14, 15 (Ga. 1980) ("In the present case, authentication required, not proof of the letter's authorship, but proof of its relevancy for explaining the appellee's subsequent conduct toward the appellant. The appellee's testimony that she found the letter in her husband's office desk drawer constitutes such proof.").

84. *See* State v. Haight-Gyuro, 186 P.3d 33, 37 (Ariz. Ct. App. 2008) ("Here, the primary purpose of showing the video recording to the jury was, of course, to permit it to identify Haight-Gyuro as the man who had purchased the items and signed the credit card slip. Thus, to comply with Rule 901(a), there must have been sufficient evidence to allow the jury to conclude the video recording depicted, with reasonable accuracy, the transaction in which the stolen credit card was used.").

85. *See Price*, 80 N.E.3d at 1011; *see also Haight-Gyuro*, 186 P.3d at 35 (requiring proponent "accurately portrays whatever it purportedly depicts.").

86. *See, e.g.*, Commonwealth v. Miller, 241 A.3d 1094, 1104 (Pa. Super. Ct. 2020) (holding that the government wasn't required to prove that "the photograph was an accurate representation of any particular person," since the photograph was offered by the government merely to impeach the defendant's testimony that he didn't have any photographs of naked or partially clad men on his cell phone); People v. Smith, No. B282228, 2018 WL 3135438, at *11 (Cal. Ct. App. June 27, 2018) (rejecting the defendant's claim that authentication of photographs obtained from the defendant's Facebook page required testimony that the photographs were accurate, since the photographs, which showed gang symbols, were offered merely to show the defendant's association with the gang); *see generally* MERRITT & SIMMONS, *supra* note 38, at 919 ("Parties often offer photos and videos to illustrate the scenes depicted in them. When offered for these purposes, a party must authenticate the visual aid as a fair and accurate representation of the underlying scene at the relevant time.").

87. FED. R. EVID. 901(a).

88. No. B283945, 2018 WL 6039908 *passim* (Cal. Ct. App. Nov. 19, 2018).

89. *Id.* at *5.

90. *Id.*

The trial court and the appeals court both rejected Walker's argument.[91] They said it was enough that the photos from Walker's phone showed him holding guns that *might* have been the murder weapon.[92] Lots of other courts have reached the same conclusion on similar facts.[93] Courts generally have followed Wigmore in concluding that "[a]s a general principle, . . . the existence . . . of the physical . . . means to do an act is admissible as some evidence of the possibility or probability of the person's doing . . . it."[94]

If the prescriptive, conditional-relevancy-based interpretation of Rule 901 is correct, then the courts and Wigmore appear to be wrong. In Walker's case, for example, it must be true either (1) that one of the guns shown in the photos is the murder weapon or (2) that none of them is. If none of them is, then the photos aren't relevant. (The only probative value that might attach to photos of Walker holding guns *other than* the murder weapon would be based on a forbidden character inference, e.g., on the inference that Walker has a propensity for possessing firearms.[95]) Accordingly, the probative value of the photos in Walker's case appears to depend on whether one of the guns was, in fact, the murder weapon. If the probative value of the photos depends on whether one of the guns was the murder weapon, though, then the prescriptive, conditional-relevancy-based interpretation of Rule 901 would require the government to introduce evidence sufficient to support a finding by a preponderance of the evidence that one of the guns shown in the photos was

91. *Id.* at *6–7.

92. *See id.* at *5, *8 n.11.

93. *See, e.g.*, Morton v. United States, 183 F.2d 844, 845 (D.C. Cir. 1950) (rejecting the defendant's argument that "the evidence [of her possession of a firearm] is inadmissible because no connection is shown between the weapon seen on her bed and the murder weapon[]" because "appellant's prior possession of the physical means of committing this murder is admissible as some evidence of the possibility or probability of her having done it."); United States v. Walters, 477 F.2d 386, 388–89 (9th Cir. 1973) (rejecting the defendant's argument that, since "neither the bank guard nor any other eyewitness to the robbery was able to identify Exhibit 3-A as a gun used during the robbery[,]" the gun recovered by police from the defendant's home was inadmissible); People v. Cox, 70 P.3d 277, 301 (Cal. 2003) ("When the specific type of weapon used to commit a homicide is not known, it may be permissible to admit into evidence weapons found in the defendant's possession some time after the crime that could have been the weapons employed. There need be no conclusive demonstration that the weapon in defendant's possession was the murder weapon." (quoting People v. Riser, 305 P.2d 1, 8 (Cal. 1956))).

94. IA JOHN H. WIGMORE, EVIDENCE § 83 at 1599 (Peter Tillers rev. 1983); *see also* JACK B. WEINSTEIN & MARGARET A. BERGER, WEINSTEIN'S EVIDENCE MANUAL: STUDENT EDITION § 6.01[6][c] at 6–12 (7th ed. 2005) ("Evidence, such as that offered by ballistics experts, which links the defendant to the weapon actually used in committing a crime, is obviously relevant; so is evidence that the defendant possessed weapons or other paraphernalia that may have been used in committing a crime.").

95. *See* FED. R. EVID. 404(b)(1) ("Evidence of any other crime, wrong, or act is not admissible to prove a person's character in order to show that on a particular occasion the person acted in accordance with the character."); United States v. Ravich, 421 F.2d 1196, 1204 (2d Cir. 1970) ("If the evidence was offered only to prove that defendants were the sort of persons who carried guns, and therefore were more likely than most to have committed an armed robbery, it might run afoul of the familiar rules that the prosecution may not introduce evidence of criminal character or generally of the commission of a crime on one occasion to prove the commission of a crime on another.").

the murder weapon. This the government was unable to do, and often will be unable to do in cases like Walker's.[96]

The prescriptive interpretation also would produce the wrong result in cases where the probative value of a proffered writing depends on the writing's accuracy or truthfulness. When a party offers a written document for the truth of the matter asserted—to show that the events described in the writing really happened, for example—the probative value of the writing generally will depend on whether the writing is accurate.[97] Suppose, for example, that the government in a drunk-driving prosecution offers a "[c]ertificate of [b]lood [a]lcohol [a]nalysis" as evidence of the defendant's intoxication.[98] Or suppose that the government in a firearms prosecution offers "printouts of computerized records reflecting the approval numbers issued by the [state bureau of firearms] to Defendant's firearms business."[99] In cases like these, the probative value of the exhibits obviously depends on whether they are accurate reports of real events: "What does it matter . . . that the [exhibit] is not a forgery, if it is not an accurate and reliable account of what transpired . . . ?"[100] Still, in cases like these, courts have consistently rejected the view that authentication requires proof of accuracy.[101] Questions about the accuracy of written documents, say the courts, "affect the weight of the evidence . . . not its admissibility."[102]

B. Conditional relevancy as myth

So, our analysis of the prescriptive interpretation of Rule 901 ends in a kind of riddle. On the one hand, this interpretation seems to require too much of the evidence's proponent. In *Walker*, for example, it would require the government to show by a preponderance that one of the guns shown in the photos from Walker's phone actually *was* the murder weapon. On the other

96. *See Walker*, 2018 WL 6039908, at *5–7.

97. *See* Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F. Supp. 1190, 1221 (E.D. Pa. 1980) ("What does it matter then that the diary is not a forgery, if it is not an accurate and reliable account of what transpired at the meetings Yajima purported to record?"), *aff'd in part, rev'd in part sub nom. In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 106 S. Ct. 1348, 89 L. Ed. 2d 538 (1986).

98. *See* United States v. Foster, 829 F. Supp. 2d 354, 357 (W.D. Va. 2011) (applying authentication requirement to "Certificate of Blood Alcohol Analysis").

99. *See* United States v. Meienberg, 263 F.3d 1177, 1180 (10th Cir. 2001) (applying authentication requirement to printouts of computerized government records).

100. *Zenith Radio Corp.*, 505 F. Supp. at 1221.

101. *See Foster*, 829 F. Supp. 2d at 367 ("The questions Foster raises regarding the accuracy of the machine on the night in question affect the weight of the evidence—specifically, that Foster's BAC was in fact .12 grams per 210 liters of breath—not its admissibility."); *Meienberg*, 263 F.3d at 1181 ("Any question as to the accuracy of the printouts, whether resulting from incorrect data entry or the operation of the computer program, as with inaccuracies in any other type of business records, would have affected only the weight of the printouts, not their admissibility." (quoting United States v. Catabran, 836 F.2d 453, 458 (9th Cir. 1988))).

102. *Foster*, 829 F. Supp. 2d at 367.

hand, the conditional-relevancy-based interpretation of Rule 901 doesn't appear to require anything that isn't *already* required by Rule 104(b) on conditional relevancy. And the logic of Rule 104(b)—of the requirement that the proponent "prove up" each of the facts on which the probative value of the evidence depends—seems unimpeachable.

The answer to this riddle is that Rule 104(b) is fundamentally flawed. As scholars have long recognized, conditional relevancy is a myth.[103] The bare logical relevancy of evidence doesn't ever depend on whether some other fact is true.[104] It only ever depends on whether some other fact or facts *might* be true.[105]

Part of the trouble with Rule 104(b) is that it supposes that the jury must regard the predicate fact—the fact on which the evidence's relevancy "depends"—either as true or as false.[106] When I argued, hypothetically, that the relevancy of the gun photos in Walker's case depended on whether one of the guns in the photos really was the murder weapon, I began by supposing that "it must be true either (1) that one of the guns shown in the photos is the murder weapon or (2) that none of them is."[107] It was on the basis of this binary view of the possibilities that I concluded that the government should be required to introduce evidence sufficient to support a finding that one of the guns was the murder weapon. After all, if *none* of the guns shown in the photos were the murder weapon, then the photos couldn't possibly be relevant.

But the possibilities aren't binary in the way that I supposed.[108] It's just not true that the jury's only alternative to concluding that the predicate fact *does* exist is concluding instead that the predicate fact *doesn't* exist. The jury has a third alternative, namely, estimating roughly the *probability* that the critical fact is true.[109] Jurors aren't omniscient; they have to decide cases on the basis of the limited information available to them.[110] In practice, this means that jurors usually aren't in a position to resolve definitively the various factual questions that figure in their deliberations.[111] They usually are in position only to assign rough, intuitive probabilities to facts. Rule 401 reflects this reality. Relevancy under Rule 401 isn't about whether the evidence makes a fact of consequence

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103. *See* authorities cited *supra* note 42.

104. *See* Allen, *supra* note 42, at 872–74.

105. *See id.*

106. Ball, *supra* note 42, at 438–39 (arguing that the critical misstep behind Rule 104(b) is that "the factual propositions involved are assumed to be . . . either 'true' or 'false[.]'").

107. *Supra* text accompanying notes 94–95.

108. Ball, *supra* note 42, at 439 (observing that relevancy traditionally was defined using words like "'probable,' instead of 'true' or 'false.'").

109. *See id.* at 442.

110. *See* Jerome Michael & Mortimer J. Adler, *The Trial of an Issue of Fact: I*, 34 COLUM. L. REV. 1224, 1248–50 (1934).

111. *Id.* at 1239–40 ("No proposition to be proved . . . is ever proved to be more than probable to some degree; it is never proved to be true . . . .").

true or false. It's about whether the evidence has "any tendency to make a fact *more or less probable* than it would be without the evidence."[112]

To this point, the defender of Rule 104(b) might respond: "Okay. Logical relevancy is about probabilities. But Rule 104(b) is basically about probabilities too. Rule 104(b) requires the proponent of the evidence to introduce evidence sufficient to support a finding that the critical predicate fact is true by a preponderance of the evidence. In effect, then, the admissibility of evidence under Rule 104(b) just depends on whether a reasonable juror could conclude that the critical predicate fact is *more probable than not*. What could be objectionable about that?"

A lot, actually. The trouble with this argument, in a nutshell, is that the bare relevancy of an item of evidence—its bare tendency to make a fact of consequence more or less probable than it otherwise would be—never really depends on whether some predicate fact is more probable than not.[113]

To begin with, it is important to recognize that although conditional *relevancy* is a myth, conditional *probative value* is not.[114] What we mean when we talk about "probative value" is, of course, different from what we mean when we talk about basic "relevancy." Relevancy is binary.[115] An item of evidence either satisfies Rule 401's "any tendency" test of relevancy or it doesn't.[116] By contrast, probative value is scalar.[117] Rule 403 on "pragmatic relevancy" presupposes, as do many other evidence rules, that it is possible to assign varying degrees of probative value to an item of evidence.[118] An item might have only very weak probative value. Or it might have strong probative value.

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112. FED. R. EVID. 401. (emphasis added).

113. *See* Friedman, *supra* note 60, at 443 ("If an item of evidence is relevant assuming the truth of a particular factual condition, then so long as that factual condition is *possible* the item of evidence will be relevant, in the broad sense that it alters the probability of a material fact, even if the factual condition is unproven."); Nance, *supra* note 42, at 455–56 (explaining that where the probative value of evidence depends on the existence of a particular predicate fact, the evidence will remain relevant as long as the probability associated with the predicate fact is greater than zero).

114. *See* Friedman, *supra* note 60, at 440 (explaining that the idea of conditional relevance "is binary when it should operate in terms of degree; thus we might speak more precisely, when precision is really necessary, in terms of conditional *probative value*.").

115. Olds v. State, 786 S.E.2d 633, 640 (Ga. 2016) ("Relevance is a binary concept—evidence is relevant or it is not—but probative value is relative.").

116. *Id.*

117. *See id.* ("Evidence is relevant if it has '*any tendency*' to prove or disprove a fact, whereas the probative value of evidence derives in large part from the *extent to which* the evidence tends to make the existence of a fact more or less probable. Generally speaking, the greater the tendency to make the existence of a fact more or less probable, the greater the probative value.").

118. *See* FED. R. EVID. 403 (permitting a judge to exclude an item of evidence if the evidence's "probative value" is substantially outweighed by the danger of "unfair prejudice," etc.); FED. R. EVID. 412(b)(2) (providing that the judge in a civil case "may admit evidence offered to prove a victim's sexual behavior or sexual predisposition if its probative value substantially outweighs the danger of harm to any victim and of unfair prejudice to any party"); FED. R. EVID. 609(a)(1)(B) (requiring a judge to decide whether impeachment "probative value" of a defendant's prior conviction "outweighs its prejudicial effect to that defendant.").

Or it might have a middling degree of probative value. Again: probative value is scalar.[119]

Probative value, as distinct from bare relevancy, *does* depend on the probabilities associated with predicate facts. Let's return to the example from the Advisory Committee's note, where a party wants to introduce evidence of "a spoken statement . . . to prove notice to *X*."[120] In this example, the probative value of the spoken statement *does* depend on the likelihood associated with a predicate fact: namely, that *X* heard the statement.[121] Evidence of the spoken statement has *greater* probative value on the question of notice if the likelihood that *X* heard it was, say, 80 percent than if the likelihood that *X* heard it was only 30 percent. Likewise, in Walker's case, the photo showing Walker with a Tec-9 handgun has *greater* probative value if the likelihood that the Tec-9 handgun was the murder weapon was, say, 90 percent than if the likelihood was only 40 percent. Conditional probative value is real.[122]

It's also important to recognize that if the probability associated with a critical predicate fact is zero, the item of evidence might really lack any probative value at all. In other words, it might not satisfy Rule 401's "any tendency" test of logical relevancy.[123] Take the Advisory Committee's notice example.[124] If the likelihood that *X* heard the spoken statement is actually zero—if it's not possible that *X* heard the statement—then evidence of the spoken statement has no probative value at all on the question of notice.[125] It isn't relevant, then. Likewise, as courts have acknowledged in similar cases, if none of the guns shown in the photos from Walker's phone could have been the gun used to kill Brown, then the photos wouldn't be relevant.[126]

Now, finally, we're in a position to understand the central problem with conditional relevancy: Until the probability associated with the predicate fact reaches zero, the probative value of the item of evidence doesn't go away. It just decreases. In particular, nothing magical or even significant happens when the probability associated with the critical predicate fact dips below the "more likely than not" threshold.[127]

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119. *Olds*, 786 S.E.2d at 640 ("[P]robative value is relative.").

120. FED. R. EVID. 104 advisory committee's note (emphasis added).

121. *Id.*

122. *See* Friedman, *supra* note 60, at 440–41 (defining the concept of conditional probative value).

123. *See* Nance, *supra* note 42, at 455–56 (explaining that where the probative value of evidence depends on the existence of a particular predicate fact, the evidence will remain relevant as long as the probability associated with the predicate fact is greater than zero).

124. FED. R. EVID. 104(b) advisory committee's note.

125. *Id.*

126. *See* People v. Cox, 70 P.3d 277, 301 (Cal. 2003) ("When the prosecution relies, however, on a specific type of weapon, it is error to admit evidence that other weapons were found in his possession, for such evidence tends to show, not that he committed the crime, but only that he is the sort of person who carries deadly weapons.").

127. *See* 1 MUELLER & KIRKPATRICK, *supra* note 44, § 1:34, at 234–35 ("[R]aising the probability of one of two independent points also raises the probability of both being true. In the setting of a spoken

Consider, for example, the Advisory Committee's "notice" hypothetical, where a party offers evidence of a spoken statement "to prove notice to *X*."[128] In this example, the probative value of the spoken statement is conditional.[129] Evidence of the spoken statement is *more* probative if the likelihood that *X* heard the statement was, say, 90 percent than if the likelihood that he heard the statement was only, say, 60 percent. On the other hand, it just isn't true that the probative value of the spoken statement vanishes magically when the probability that *X* heard it dips below 50 percent, or below the preponderance of the evidence threshold.[130] The spoken statement has *some* probative value as long as *X might* have heard it, even if the likelihood that *X* heard it is only 10 or 20 percent.

The same thing is true of the gun photos in Walker's case. The probative value of the photos from Walker's phone depends on the probability that one of the guns shown in the photos was the gun used to kill Brown. Everyone would agree, for example, that the photo showing Walker with a Tec-9 handgun has *greater* probative value if the likelihood that the Tec-9 handgun was the murder weapon was, say, 90 percent than if the likelihood that Tec-9 was the murder weapon was only 40 percent. But again, the probative value of the photo doesn't vanish magically when the probability that the gun shown in the photo was the gun used to kill Brown dips below 50 percent.[131]

Because conditional relevancy is a myth, it can't provide a workable limiting principle for Rule 901's authentication requirement. In other words, since the bare logical relevancy of a particular piece of evidence *never* really depends on the existence of proof by a preponderance of some other fact or facts, Rule 901 can't really require the proponent of the evidence to prove up just those facts on which the evidence's logical relevancy depends. Such facts don't exist.

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warning, proving the warning was spoken raises the probability that the warning was both spoken and heard even without proof of the latter point, and even in circumstances in which proving what was said does not itself seem to show what was heard.").

128. FED. R. EVID. 104(b) advisory committee's note (emphasis added).

129. *Id.*

130. *See* Friedman, *supra* note 60, at 469.

131. The reason why the probative value doesn't vanish is, at bottom, simple math. To calculate joint probabilities, we generally just multiply the first probability by the second. RICHARD I. LEVIN & DAVID S. RUBIN, APPLIED ELEMENTARY STATISTICS 131 (Prentice-Hall, Inc. 1980) (defining "joint probability" as the "probability of events *A* and *B* occurring together or in succession"). In Walker's case, for example, if the probability that Walker possessed the Tec-9 handgun was 80 percent, or .8, and the probability that the Tec-9 was the murder weapon was .4, then the two facts' joint probability—the probability that Walker possessed the murder weapon, in other words—would be .32. If instead the probability that Walker possessed the Tec-9 handgun was, say, 90 percent, or .9, and the probability that the Tec-9 was the murder weapon was still .4, then the joint probability that both facts are true would be .36. Against this background, it's easy to see why the tendency of evidence to make a fact of consequence more or less probable doesn't ever depend on a predicate fact being more probable than not. *See* FED. R. EVID. 104(b). As long as the probability assigned to the predicate fact isn't zero, an item of evidence that increases the probability of the other fact—the evidentiary fact—will also increase the joint probability that *both* the evidentiary fact and the predicate fact are true. *See* 1 MUELLER & KIRKPATRICK, *supra* note 44, § 1:34; *see also* Nance, *supra* note 42, at 455–56 (discussing the doctrine of "conditional irrelevance").

C. Conditional relevancy redux: Schwartz's "foundation" theory

Many scholars agree that conditional relevancy is, as Vaughn Ball said, a myth.[132] One scholar, though, has mounted an intriguing defense of Rule 104(b) and of its application to authentication. In a 2011 article in the Georgetown Law Journal, Professor David Schwartz developed what he called "A Foundation Theory of Evidence."[133] In the article, Schwartz didn't necessarily claim that arguments like Ball's were wrong.[134] He claimed, rather, that they were "misconceived."[135] He said that the critics of Rule 104(b), and for that matter its drafters too, had misunderstood the rule's rationale.[136] On Schwartz's view, Rule 104(b) isn't about relevancy. It's about sufficiency.[137]

Schwartz's argument ultimately is wrong, as I'll explain. But Schwartz raises deep and important questions about the relationship between relevancy and sufficiency and about the underpinnings of the authentication requirement too. In this and the succeeding three Parts, I'll explain both why Schwartz's challenge is serious and why it ultimately is wrong. I'll also lay the groundwork for my own reliability-based account of authentication.

To begin: though Schwartz reconceives the underpinnings for Rule 104(b), he wouldn't change its terms.[138] Like the drafters, Schwartz would apply the rule in cases where the probative value of the evidence "depends" in a particular way on the existence of a predicate fact.[139] Like the drafters, that is, he would apply the rule in cases where the proffered item of evidence would lack probative value if the predicate fact were assigned a probability of zero.[140] Schwartz also shares the drafters' view of what should happen in these cases. Like the drafters, he would require the proponent of the evidence to introduce evidence sufficient to support a finding by a preponderance that the critical predicate fact is true.[141] If the proponent of the evidence fails so to prove up the critical predicate fact, Schwartz would exclude the evidence.[142]

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132. *See* Schwartz, *supra* note 40, at 117–18 (recounting criticism of Rule 104(b) and acknowledging that "[t]he attacks on FRE 104(b) have been made by highly respected and influential evidence scholars").

133. *Id. passim.*

134. *See id.*

135. *Id.* at 156–57.

136. *Id.* at 95 ("[Foundation] has been widely misunderstood by evidence commentators.").

137. *See id.* at 99 (arguing that "every evidentiary fact needed to prove the [party's] claim must be at least as probable as the overall claim itself—and must therefore be probably true.").

138. *See id.* at 103 ("[A] complete foundation requires evidence of all facts that, if true, make the exhibit relevant *under the offering party's theory of the case*."); *see also id.* at 107–110 (explaining why "FRE 104(b) is an important component of the foundation principle implicit in the Federal Rules.").

139. *See id.* at 109–10 (arguing that the relevance of defendant's prior misconduct, for example, "depend[s]" on whether the defendant actually performed the prior act).

140. *See id.*

141. *See id.* at 103; *see also id.* at 105 ("[A] complete foundation requires evidence of all facts that, if true, make the exhibit relevant *under the offering party's theory of the case.*"); *id.* at 110 (implying that "fact[s] on which relevance depends . . . must be established by evidence sufficient to support a finding of its probable truth.").

142. *Id.* at 164.

Schwartz differs from the drafters, however, in his rationale for this requirement. The drafters appear to have supposed that in this class of cases the bare relevancy of the proffered evidence really would depend on the existence of evidence sufficient to prove the predicate fact by a preponderance. They appear to have supposed, in other words, that in the absence of evidence sufficient to prove the critical predicate fact by a preponderance, the proffered item of evidence could not make a fact of consequence "more . . . probable than it would be without the evidence."[143] Schwartz doesn't claim this. Nor could he plausibly, as I have explained.[144] What he claims instead is that in the absence of evidence sufficient to prove the predicate fact by a preponderance, the proffered item of evidence cannot make a fact of consequence probable *enough*.[145] Specifically, he argues that an item of evidence cannot help a party to satisfy his or her *burden of production* in relation to a fact of consequence unless the party also introduces evidence sufficient to prove all the critical predicate facts by a preponderance.[146]

Schwartz's argument is very complicated, not least because in making the argument he develops a whole new vocabulary. He assigns new meanings to lots of traditional terms, like "foundation" and "relevance."[147] But the basic idea underlying Schwartz's argument is straightforward. I'll break it down into five steps.

First, Schwartz observes that if a party is to satisfy his or her burden of proof in relation to the elements of a claim or defense, the party must, at the very least, introduce evidence sufficient to support a finding by a preponderance as to each element of the claim or defense.[148] When Schwartz talks about the burden of proof, he isn't referring to the ultimate burden of persuasion that is applied by the fact finder when resolving the party's claim or defense. His argument is grounded, rather, on the burden of production, which the party must satisfy as a threshold matter to justify even putting the claim or defense before the fact finder.[149] Unlike the burden of persuasion, which varies depending on which party is making the claim and on whether the case is civil or criminal, the burden of production, says Schwartz, always requires the party to introduce evidence "sufficient to support a finding" by a preponderance as to the elements of the claim or defense.[150]

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143. FED. R. EVID. 401(a).

144. *See supra* Part I.B.

145. *See* Schwartz, *supra* note 40, at 126.

146. *Id.*

147. *See id.* at 103–110 (explaining his distinctive use of the term "foundation"); *see also id.* at 110–16 (explaining his distinctive use of the term "relevance").

148. *See id.* at 126 ("[T]he foundation principle derives from the . . . burden of production. Indeed, foundation is the burden of production applied on a more specific level of detail, to items of evidence rather than to a claim as a whole.").

149. *Id.* at 127.

150. *Id.*

Second, Schwartz argues that this burden of proof (as I'll refer to the burden of production for the sake of simplicity) doesn't just require the party to introduce evidence sufficient to support a finding as to each of the abstract legal "elements" of the claim or defense: "causation," for example, or "negligence."[151] Instead, to satisfy its burden of proof, the party must introduce evidence sufficient to prove a specific, singular "narrative that establishes the elements of the claim."[152] This narrative must, moreover, be richly detailed. "[A] requirement of detail is implicit," Schwartz claims, "in a party's commitment to a specific narrative of the basis for his claim."[153]

Third, Schwartz argues that in order to satisfy its burden of proof in relation to this detailed narrative, the party must satisfy the same burden individually in relation to every detail—every constituent part—of the narrative.[154] In terms of logical form, what the party is required to prove is an extended conjunctive proposition, where each detail is joined to the others by "and."[155] Of the *Walker* case, for example, Schwartz presumably would say that the government was required to prove something roughly of this form: "Joshua Brown died on May 24, 2015 *and* the cause of death was multiple gunshot wounds *and* the shooting occurred near 84th Street and Main Street in Los Angeles *and* the gun used to kill Brown was a nine-millimeter *and* the gun was fired by Deonte Walker," etc. Since this extended conjunctive proposition can't be true by a preponderance unless each of the conjuncts—each of the details in the party's narrative—*also* is true by a preponderance, the party must actually introduce evidence sufficient to prove each of these details by a preponderance of the evidence.[156]

Fourth, Schwartz argues that an item of evidence can't help the party satisfy its burden in relation to any of these factual details unless the item of evidence *itself* satisfies the same burden.[157] By this he means, first, that the evidentiary fact itself must be "probably true."[158] But he also means that any predicate fact—any "fact condition on which relevance depends"—must be probably true as well.[159] Suppose, for example, that the "detail" to be proved is the defendant's motive for murder. And suppose that the government, to prove this detail, wants to introduce an insurance policy on the victim's life, of which the defendant was the designated beneficiary.[160] According to Schwartz, this evidence can't help the government satisfy its burden on the question of motive unless each of two different facts is "probably true": (1) the evidentiary fact,

151. *Id.* at 126–29.
152. *Id.*
153. *Id.* at 129–32.
154. *Id.* at 132–34.
155. *Id.* at 133.
156. *Id.*
157. *Id.* at 144–50.
158. *Id.* at 145.
159. *Id.* at 142.
160. *Id.* at 140–42.

namely, that defendant was the beneficiary of an insurance policy on the victim's life; and (2) the critical predicate fact, namely, that "the defendant was actually aware that he stood to gain from the victim's death under this policy."[161] Unless each of these facts is "probably true," argues Schwartz, they can't help make the existence of the defendant's motive "probably true."[162] For Schwartz, "the probability of a fact can be no greater than the probability of the facts it . . . depends upon . . . ."[163]

Fifth, Schwartz argues that where a party's "specific narrative" includes lacunae, as it often will, the party is prohibited from introducing evidence that shows what *might have* happened in these lacunae.[164] Schwartz acknowledges, as he must, that a party's "specific narrative" often will include "narrative gaps" or lacunae.[165] In a murder case, for example, the government might be unable to say exactly what happened to the victim's body.[166] Likewise, in a murder case where multiple accomplices join forces in committing the crime, the government might be unable to say even which of the accomplices was directly responsible for the victim's death—might be unable to say who pulled the trigger, for example.[167] Schwartz acknowledges, as he must, that these sorts of lacunae in the party's narrative won't prevent the party from satisfying its ultimate burden of persuasion.[168] Schwartz argues, though, that where a party's case includes such lacunae—where the party is unable to prove exactly what happened—the party must be prohibited from introducing evidence about

161. *Id.* at 142, 145.

162. *See id.* at 122 ("[E]videntiary facts must be at least as probable as the claim itself; because the claim must be probably true, so must the evidentiary facts.").

163. *Id.*

164. *See id.* at 116 (arguing that a knife recovered from the defendant would not be admissible unless the government claimed (and showed, presumably) that the knife "was the murder weapon"); *id.* at 123 (arguing that evidence of "potential murder weapons . . . found about the home . . . fails to inform the jury about anything case-specific and is therefore irrelevant.").

165. *Id.* at 154–55; *see also* David S. Schwartz, *Reply to Professor Rothstein*, 100 GEO. L.J. ONLINE 16, 18–19 (2012) (discussing narrative gaps).

166. *See* Paul Rothstein, *Response Essay: Some Observations on Professor Schwartz's "Foundation" Theory of Evidence*, 100 GEO. L.J. ONLINE 9, 12–13 (2012) (developing a hypothetical wrongful death case where "no dead body is ever found" but where other evidence suggests murder).

167. *See, e.g.*, State v. Delgado, 725 A.2d 306, 310 (Conn. 1999) ("Although the evidence did not reveal whether it was the defendant or Cheesecake who had fired the shot that fatally injured the victim, the jury reasonably could have determined that there was sufficient concert of action between the defendant and Cheesecake to support the accessory allegation."); State v. Apodaca, 887 P.2d 756, 763–64 (N.M. 1994) (rejecting the defendant's claim that the prosecutor had committed fundamental error by arguing in closing that "'I don't have to prove who pulled the trigger[]' and '[i]t doesn't matter who pulled the trigger that night.'").

168. *See* Schwartz, *supra* note 165, at 19 ("[A] homicide can be proven without proving how the body was disposed of . . . .").

what *might have* happened.[169] Evidence about what might have happened violates "the rule against speculation," Schwartz argues.[170]

The *Walker* case nicely illustrates Schwartz's argument. If the government in *Walker* had opted, as part of its "specific narrative," to identify the particular firearm that Walker used to kill Joshua Brown, the government would, by Schwartz's reckoning, have been required to introduce evidence sufficient to support a finding as to this factual detail.[171] The photos from Walker's phone wouldn't have satisfied this burden, of course. The government didn't have evidence sufficient to prove by a preponderance that any of the guns shown in the photos actually was the gun used to kill Brown.[172] The identity of the firearm used by Walker to kill Brown represents a factual lacuna in the government's "specific narrative" of Brown's murder, then.

The existence of this lacuna wouldn't have prevented the government from convicting Walker, as even Schwartz would concede.[173] Again, a party's "specific narrative" often will have factual lacunae.[174] But the existence of this lacuna in the government's case in *Walker* does mean, according to Schwartz, that the government would have been prohibited from introducing evidence tending to suggest that some firearm or other *might* have been the firearm used to kill Brown.[175] This, in effect, is what the photos from Walker's phone did. They suggested that Walker *might have*, or could have, used one of the guns shown in the photos to kill Brown. Evidence that a particular fact *might* have existed is speculative, says Schwartz.[176] Accordingly, on Schartz's account, the gun photos from Walker's phone ought to be excluded from evidence.

This, finally, is just what Rule 104(b) would accomplish. For Schwartz, as for the rule's drafters, Rule 104(b) applies in just those cases where an item of evidence would lack probative value if a critical predicate fact were assigned a probability of zero.[177] In *Walker*, the critical predicate fact, as identified by defense counsel, was that one of the guns shown in the photos was the gun used to kill Brown.[178] If the probability assigned to this critical predicate fact were zero, the photos would lack probative value. Accordingly, Rule 104(b)

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169. *See* Schwartz, *supra* note 40, at 122, 125 (arguing that government would not be permitted to introduce knife recovered from the murder defendant's kitchen without introducing evidence sufficient to prove by a preponderance that "it was the murder weapon").

170. *Id.* at 124–25.

171. *Id.* at 122, 125.

172. People v. Walker, No. B283945, 2018 WL 6039908, at *2 (Cal. Ct. App. Nov. 19, 2018).

173. *See* Schwartz, *supra* note 164, at 19 ("[A] homicide can be proven without proving how the body was disposed of . . . .").

174. Schwartz, *supra* note 40, at 154.

175. *See id.* at 122 (explaining that similar evidence was "implausible as real evidence" due to its "lack of foundation.") .

176. *Id.* at 124–25.

177. *See id.* at 118 (finding that FRE 104(b)'s requirement "could theoretically be done as to any offer of evidence").

178. People v. Walker, No. B283945, 2018 WL 6039908, at *5 (Cal. Ct. App. Nov. 19, 2018).

required the government to introduce evidence sufficient to support a finding by a preponderance that one of the guns shown in the photos *was* the gun used to kill Brown.[179] This the government could not do.

D. Schwartz's disjunction problem

In a nutshell, what Schwartz argues is that the same burden of proof that courts use to judge the sufficiency of the party's evidence *collectively*—to decide whether the party has introduced sufficient evidence in relation to a particular element of a claim or defense—also applies to individual items of evidence.[180] The burden of proof "trickles down," so to speak, to individual items of evidence.

If Schwartz's "trickle down" argument sounds familiar, its seeming familiarity might be attributable to the fact that this argument is discussed, and decisively rejected, in the Advisory Committee's note to Rule 401.[181] The Advisory Committee warns the reader not to confuse questions of relevancy with questions of sufficiency.[182] The question posed by Rule 401 is, as the committee explains, just whether the evidence makes a fact of consequence "more . . . probable than it would be without the evidence," not whether the evidence makes the fact more probable than not.[183]

> The standard of probability under the rule is "more . . . probable than it would be without the evidence." Any more stringent requirement is unworkable and unrealistic. As McCormick § 152, p. 317, says, "A brick is not a wall," or, as Falknor, Extrinsic Policies Affecting Admissibility, 10 Rutgers L. [] Rev. 574, 576 (1956), quotes Professor McBane, " . . . [I]t is not to be supposed that every witness can make a home run." Dealing with probability in the language of the rule has the added virtue of avoiding confusion between questions of admissibility and questions of the sufficiency of the evidence.[184]

The committee's views of this matter were, and mostly still are, uncontroversial. In his influential 1941 article, *Relevancy, Probability, and the Law*, Professor George F. James carefully articulated the distinction between two questions about probability: (1) the question whether a particular piece of evidence makes a fact of consequence "more likely than not"; and (2) the question whether the evidence makes the fact of consequence more probable "than [it was] before the evidence . . . was received."[185] Only the first of these

179. FED. R. EVID. 104(b).

180. Schwartz, *supra* note 40, at 99 (arguing that "every evidentiary fact needed to prove the [party's] claim must be at least as probable as the overall claim itself—and must therefore be probably true").

181. FED. R. EVID. 401 advisory committee's note to 1972 proposed rules.

182. *Id.*

183. *Id.*

184. *Id.*

185. George F. James, *Relevancy, Probability, and the Law*, 29 CAL. L. REV. 689, 698–99, 699 n.22 (1941).

two questions, he said, has any legitimate bearing on the admissibility of individual items of evidence.[186] He explained:

> It should be unnecessary to point out the fundamental distinction between relevancy of evidence and the degree of probability necessary to establish a *prima facie* case. Almost every careful writer has discussed it. . . . . If the sum total of evidence received falls short of satisfying the burden of persuasion, the jury is there for the express purpose of finding against the party who must bear that burden. If the sum total of evidence received is so slight that the jury as reasonable men could not be persuaded, the trial judge may enter a non-suit or direct a verdict. There is no reason for worrying about such issues while passing upon an offer of evidence.[187]

So Schwartz's argument, whatever its intuitive appeal, runs counter to the long-accepted conventional wisdom on the subject of relevance. If there's something wrong with Schwartz's argument, though, what is it exactly?

What's wrong with Schwartz's argument is that he overlooks the centrality to law of *disjunctive proof*. Parties often prove facts by proving a "disjunctive" proposition—by proving a proposition of the form "P_1 or P_2 or P_3 or . . . P_n," etc., where each of the individual disjuncts is consistent with the party's overall narrative.[188] In a murder case, for example, the prosecution might satisfy its burden of proof on the question of causation by showing that the defendant caused the victim's death *either* by shooting him *or* by stabbing him *or* by strangling him. Where a party undertakes to prove a fact disjunctively, moreover, it is possible for the party to satisfy its burden of proof as to the disjunctive proposition *as a whole* without, at the same time, satisfying the same burden in relation to any of the individual disjuncts. It is possible for the party to prove that the disjunctive proposition as a whole is, say, more probable than not without proving that any of the individual disjuncts is more probable than not.

Professor Richard Friedman uses a "notice" example to illustrate how a combination of "maybes" can prove a "probably."[189] In Friedman's example, a woman named Blanca is charged with the crime of "improper disposal of refuse."[190] Under the statute defining this offense, the government is required to prove that when Blanca engaged in the unlawful conduct—namely, mixing

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186. *Id.*

187. *Id.* at 699 n.22.

188. *See* Richard D. Friedman, *Infinite Strands, Infinitesimally Thin: Storytelling, Bayesianism, Hearsay and Other Evidence*, 14 CARDOZO L. REV. 79, 91–94 (explaining that "the comparison the fact finder must make [in resolving cases] is not simply of one story against another"; rather, the fact finder usually "must consider numerous ways, each somewhat different from the others," in which the events might have transpired).

189. Friedman, *supra* note 60, at 441, 448–49, 448 n.30; *cf.* Schwartz, *supra* note 164, at 17 (criticizing "evidence scholars [who] maintain the idea that 'what may have happened' is relevant to prove 'what probably did happen'").

190. Friedman, *supra* note 60, 441.

newspapers with trash—she *knew* that the conduct was proscribed by statute.[191] To prove Blanca's knowledge of the law, the prosecutor wants to introduce: (1) evidence that this prohibition was the subject of a front-page story in a local newspaper one week before Blanca engaged in the conduct; and (2) evidence that the prohibition was featured on the nightly newscast of a local TV station two weeks earlier.[192] Friedman asks us to suppose that, given Blanca's reading habits, the likelihood that she read the story in the newspaper was .4, or slightly *less* probable than not.[193] Likewise, he asks us to suppose that, given Blanca's TV viewing habits, the likelihood that she saw the newscast also was .4.[194]

If we were to apply Rule 104(b) according to its terms—as Schwartz would have us do—we would have to exclude evidence both of the newscast and of the newspaper story, as Friedman explains.[195] The probative value of the newscast depends on whether Blanca saw it, naturally.[196] But since the likelihood that Blanca saw the newscast was only .4, the government would be unable to muster "evidence sufficient to support a finding [by a preponderance]" of this critical predicate fact.[197] Likewise, the probative value of the newspaper article depends on whether Blanca read it. But since the likelihood that Blanca read it was only .4, the government would be unable to muster "evidence sufficient to support a finding [by a preponderance]" of this critical predicate fact.[198] Both pieces of evidence accordingly would have to be excluded.

Excluding this evidence wouldn't make any sense, though.[199] To prove that Blanca knew she was violating the statute, the government really just has to prove that she was exposed *either* to the newspaper story *or* to the TV newscast. In other words, the government just has to introduce evidence sufficient to prove this disjunctive proposition: "Blanca learned of the statute from the newspaper story *or* Blanca learned of the statute from the TV newscast." Even though the government's evidence doesn't suffice to make either of the individual "disjuncts" more probable than not, it *does* make the disjunctive proposition as a whole more probable than not. If the probability that Blanca saw the newspaper story was .4 and the probability that she saw the newscast was .4, then the probability that she saw one or the other is .64.[200]

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191. *Id.*
192. *Id.* at 448.
193. *Id.* at 448 n.30.
194. *Id.*
195. *Id.* at 449.
196. *See id.* at 448–49.
197. FED. R. EVID. 901(a).
198. *Id.*
199. *See* Friedman, *supra* note 60, at 449 ("[I]f the court were to exclude the proffered evidence unless the predicate is supported by sufficient evidence to support a finding, useful evidence would unnecessarily be kept from the jury.").
200. *Id.* at 448 n.30.

Schwartz anticipates this disjunction problem.[201] Accordingly, he proposes a modification to his rule for those supposedly rare cases where a party proves a critical fact disjunctively.[202] He says that in these cases, he's willing to treat the party's proof as sufficient to satisfy the conditional-relevancy requirement if "the sum total of the disjunctive evidence . . . reach[es] the threshold of evidence sufficient to support a finding."[203] In Blanca's case, then, both the newspaper story and the TV newscast would be admissible, since the likelihood that Blanca saw one or the other "reach[es] the threshold of evidence sufficient to support a finding."[204]

Schwartz's response to the disjunction cases is inadequate. For starters, his proposed modification seems inconsistent with Rule 104(b) itself. Under Rule 104(b), as under Rule 401, the court evaluates the relevancy of individual items of evidence one by one, item by item, albeit against the background of the other evidence in the case.[205] Accordingly, Rule 104(b) requires the proponent of an item of evidence to introduce "evidence sufficient to support a finding" as to all the predicate facts on which the relevance of *that particular item of evidence* depends.[206] Under Rule 104(b), then, the admissibility of the newspaper story depends on whether Blanca read it. And the admissibility of the TV newscast depends on whether Blanca watched it.

Under Schwartz's jerry-rigged modification, by contrast, the courts would do a kind of "group relevancy analysis." Under Schwartz's modification, the party would say to the judge, in effect, "I want you to admit this whole group of two or three or four items of evidence on the basis of the conclusion that *one or another of them* must be relevant—on the basis of the conclusion that the predicate facts on which the relevancy of *one or another of them* depends must be true." This isn't how courts do relevancy analysis. The question to which Rule 401, and for that matter Rule 104(b) too, is addressed is "whether an *item* of evidence . . . possesses sufficient probative value to justify receiving it in evidence."[207] At the least, then, Schwartz's solution to the disjunction problem would require courts to fundamentally change the way they do relevancy analysis. They'd have to do it collectively, rather than item by item.

The much more serious difficulty with Schwartz's response to the disjunction problem is that he vastly underestimates its scope. After articulating his proposed solution to the disjunction problem, Schwartz argues that the

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201. *See* Schwartz, *supra* note 40, at 153 ("It is easy to see that the sum total of either formula can be > 0.5 even when A and B each have values ≤ 0.5.").

202. *See id.*

203. *Id.*

204. *Id.*

205. *See* Huddleston v. United States, 485 U.S. 681, 690 (1988).

206. *See* Schwartz, *supra* note 40, at 153; FED. R. EVID. 104(b).

207. FED. R. EVID. 401 advisory committee's note (emphasis added); *see also* FED. R. EVID. 104(b) advisory committee's note ("In some situations, the relevancy of an item of evidence, in the large sense, depends upon the existence of a particular preliminary fact.").

disjunction problem is not a "generalizable example[] of improbable evidence making a fact of consequence more likely."[208] To support his claim that the problem is not "generalizable," he claims that the problem will arise only in those few cases where two conditions are satisfied: (1) "the sum total of the disjunctive evidence must reach the threshold of evidence sufficient to support a finding"; and (2) "the disjunctive possibilities (for example, the possible causal agents) must be specified."[209]

Schwartz is wrong on both counts, however. The disjunction problem *is* generalizable. And it is generalizable precisely because neither of the two limiting conditions he imposes is remotely justified.

E. The disjunction problem is generalizable – Part 1

First of all, the disjunction problem is not confined to cases where, as in Blanca's case, the jury gets from "maybe" to "probably" purely by adding up the probabilities assigned individually to *specific disjuncts*. The problem arises, too, in cases where jury gets from "maybe" to "probably" partly on the basis of evidence that pertains to the disjunction as a whole.

Let's start with a variation on the Blanca hypothetical. Suppose that the evidence of Blanca's newspaper-reading habits would have justified the jury in assigning, at most, a probability of .25 to the proposition that Blanca had read about the recycling law in the local newspaper. And suppose that the evidence of Blanca's TV-viewing habits would have justified the jury in assigning, at most, a probability of .25 to the proposition that Blanca had learned about the recycling law from the TV newscast. On just this evidence, the likelihood that Blanca learned about the law *either* from the newspaper *or* from the TV newscast would be just .4375—less probable than not.[210] But suppose that the prosecution *also* introduced evidence that Blanca appeared to have *believed*, when she disposed illegally of her recycling, that her conduct was illegal. Suppose, for example, that one of Blanca's neighbors testified that before Blanca discarded the recyclables in her outdoor trash bin, she looked around carefully as if she were trying to make sure that nobody was watching. Or suppose that the arresting officer testified that when he arrested Blanca, she said to him, "This is about the recycling, isn't it?"

In this variation on Blanca's case, as in the original version, it seems more probable than not that Blanca learned about the recycling law *either* from the

208. Schwartz, *supra* note 40, at 153.

209. *Id.*

210. The probability that the disjunction "*X* or *Y*" is true is the same as the probability that the conjunction "not *X* and not *Y*" is false. *See* Friedman, *supra* note 60, at 448 n.30. In our revised version of the Blanca hypothetical, the probability that Blanca *neither* read the paper *nor* watched the TV newscast is (1 - .25) x by (1 - .25), or .5625. So the probability that she *either* read the paper *or* watched the TV newscast or both is (1 - .5625) or .4375.

newspaper *or* from the TV newscast. In this variation, though, we don't get from "maybe" to "probably" purely by adding up the probabilities assigned to the two specific disjuncts on the basis of Blanca's newspaper-reading and TV-viewing habits. Rather, we get from "maybe" to "probably" partly on the basis of evidence that pertains to *the disjunction as a whole*. More specifically, we get to "probably" by relying on evidence of other, interlocking elements of the prosecution's "specific narrative."

To elaborate: evidence of Blanca's newspaper-reading and TV-viewing habits really bears on a different detail of the prosecution's "singular narrative" than does the evidence of her guilty conscience. To prove that Blanca had "knowledge" of the recycling law, the prosecution was required to prove both (1) that Blanca *believed* the law prohibited her conduct; and (2) that this belief was *justified* by what she had read in the newspaper or by what she had seen on TV. Knowledge, after all, is "justified true belief."[211] Still, though each of these story-elements is distinct, they're complementary. For example, even if the government had introduced no evidence at all of Blanca's newspaper-reading habits or TV-viewing habits, the jury still could have relied on evidence of Blanca's apparent consciousness of guilt to conclude that Blanca *must have* learned of the recycling law *somehow or other*—by reading about it in the newspaper, for example, or by hearing about it on the TV news.

Using evidence of one story-element to prove another, interlocking story-element is utterly commonplace. In a murder case, for example, the government might (1) uncover ample evidence that the accused abducted the victim and then, a few hours later, disposed of the victim's body; but (2) lack any evidence as to how exactly the accused caused the victim's death. This lacuna in the government's case won't prevent the government from proving the accused's guilt beyond a reasonable doubt, of course. From the government's compelling evidence of the *other* story-elements, the jury reasonably can infer that the accused *must have* killed the victim somehow or other—by shooting him *or* by stabbing him *or* by strangling him, etc. In effect, then, the government will prove a disjunction—shooting *or* stabbing *or* strangling, etc.—with evidence that makes *the disjunction as a whole* more probable, rather than with evidence that makes any of the *individual disjuncts* more probable.

What distinguishes our variation on Blanca's case from Friedman's original version is that it combines both sorts of evidence: (1) "disjunct-specific" evidence, in the form of testimony about Blanca's newspaper-reading and TV-viewing habits; and (2) "disjunction-general" evidence, in the form of testimony that Blanca appeared to realize that the law prohibited her conduct. In this variation, though, no less than in the original version, evidence of "a 'maybe'

211. *See* Anthony Quinton, *Knowledge and Belief*, in 4 ENCYCLOPEDIA OF PHILOSOPHY 345, 345 (Paul Edwards ed., 1967) ("According to the most widely accepted definition, knowledge is justified true belief.").

can make a 'probably' more probable."[212] Suppose, for example, that the jury, after hearing evidence of Blanca's apparent belief that her conduct was illegal, remained uncertain about whether to infer that Blanca really *must have* learned of the recycling law somehow. We can imagine one juror saying to another, "Okay. She must have known. But how?" In this scenario, evidence that she might plausibly have read about the recycling law in the newspaper or heard about it on TV could tip the balance.

Professor Paul Rothstein makes roughly the same point in his own very abbreviated response to Schwartz. Rothstein asks us to imagine a case where a husband is sued for wrongful death in connection with his wife's disappearance.[213] The plaintiff's evidence—"of motive and animosity," for example—connects the defendant to the wife's disappearance.[214] But "no dead body is ever found."[215] As it happens, moreover, the state of the evidence is such that the absence of a body, together with the inherent difficulty of disposing of a body, might be enough to prevent skeptical jurors "from tipping over into . . . the murder scenario."[216] Against this background, the plaintiff introduces evidence that "there [is] a factory [in the defendant's neighborhood] that manufactures and sells to farmers large meat grinders, suitable for grinding entire bodies of cattle."[217] Rothstein asks: "Mightn't [a juror] now, after introduction of the meat-grinder evidence, be correctly influenced by just the possibility (not the probability) of defendant's use of the meat grinder to dispose of the body? Mightn't this properly slightly tip him over into accepting the murder scenario?"[218]

The answer to this question is yes. Though Rothstein doesn't identify the meat-grinder case as an instance of the disjunction problem, that's what it is. To persuade the jury that the defendant killed the victim, the plaintiff must persuade the jury that the defendant disposed of the victim's body somehow or other.[219] The plaintiff must, in other words, persuade the jury of the truth of a disjunctive proposition, namely, that the defendant disposed of the victim's body *either* by putting it in a meat grinder *or* by dissolving it in acid *or* by burning it in the fireplace, etc. In all likelihood, the plaintiff will persuade the jury of this disjunction by proving interlocking story-elements—"motive and animosity," for example.[220] But evidence of "the possibility (not the probability) of

212. Schwartz, *supra* note 165, at 17 (summarizing the views of his opponents, namely, "that a 'maybe' can make a 'probably' more probable.").

213. Rothstein, *supra* note 166, at 12.

214. *Id.* at 13.

215. *Id.* at 12.

216. *Id.* at 13.

217. *Id.* at 12.

218. *Id.* at 13.

219. *See id.*

220. *Id.* at 12.

defendant's use of the meat grinder" will help prove the disjunction, too.[221] By increasing the probability associated with one of the disjuncts, this evidence increases the probability that the disjunction as a whole is true.[222]

In summary, Rothstein's meat-grinder example shows just what our variation on the Blanca problem showed: the disjunction problem doesn't only arise in cases where, as in the original version of the Blanca's case, the jury gets from "maybe" to "probably" purely by adding up the probabilities assigned individually to *specific disjuncts*. The problem arises, too, in cases where the jury gets from "maybe" to "probably" partly on the basis of evidence that pertains to the disjunction as a whole.

F. The disjunction problem is generalizable – Part 2

The disjunction problem is generalizable in a second way, too. The disjunction problem is not confined to cases where, as in Friedman's original version of the Blanca hypothetical, "the disjunctive possibilities . . . [are] specified."[223] In other words, it doesn't just arise in cases where the universe of possible disjuncts is *closed*. It arises too in cases where the universe of possible disjuncts is *open*.

In the original version of the Blanca hypothetical, and in our first variation on the Blanca problem too, we supposed that Blanca could *only* have learned about the recycling law either (1) by reading about it in the newspaper or (2) by hearing about it on the TV newscast. This assumption was unrealistic, of course. In the real world, people learn about new laws from a wide variety of sources. In Blanca's case, for example, even if Blanca hadn't read about the recycling law in the newspaper or heard about it on the TV newscast, she might still have learned about it second-hand from friends, neighbors, co-workers, or family members. In cases like Blanca's, then, the universe of disjoined alternatives usually will be open, rather than closed. In other words, even when a party who's trying to prove the disjunction introduces evidence of only one or two

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221. *Id.* at 13.

222. *Cf.* LEVIN & RUBIN, *supra* note 131, at 126–28 (1980) (explaining use of the "addition rule" to calculate "the probability that one thing *or* another will occur"); DEBORAH RUMSEY, STATISTICS: ALL-IN-ONE 180 (2023) (explaining the use of the "addition rule" to calculate the probability of disjunctive, "either/or" propositions). Evidence that increases the probability associated with one of the specific disjuncts won't always increase the overall probability of the disjunctive proposition. Suppose, for example, that you want to estimate the probability that a card drawn at random from a deck of cards is one or another of the 13 hearts—is the ace of hearts *or* the two of hearts *or* the three of hearts, etc. Evidence that the card is a queen will increase the likelihood that the card is the queen of hearts. It will increase the probability associated with one of the disjuncts, then. But it won't increase the overall probability that the card you drew is one or another of the hearts. What characterizes cases like this one, though, is that the increase in the probability associated with the one disjunct is offset by an exactly proportional decrease in the probability associated with the others. This characteristic feature isn't present in, say, the Blanca hypothetical. Evidence that increases specifically the likelihood that Blanca read the newspaper won't be offset by a proportional decrease in the likelihood that she watched the TV newscast.

223. Schwartz, *supra* note 40, at 153.

alternatives, the disjunction itself usually will encompass many other, unidentified alternatives as well.

The fact that the disjunction encompasses other, unidentified alternatives doesn't change anything, however. The critical fact about the disjunction cases—the reason why, in these cases, "a 'maybe' can make a 'probably' more probable"[224]—is that, as a general matter, evidence that increases the probability associated with one of the disjuncts also will increase the probability associated with the disjunction as a whole.[225] This fact doesn't change just because the universe of disjuncts is open, rather than closed. Even in a world where Blanca might also have learned about the recycling law second-hand, evidence that Blanca reads the local newspaper—and so might have learned of the recycling law by reading about it—still will increase the probability that she learned about the recycling law somehow or other.

Granted, evidence that increases the probability associated with a particular disjunct might, on occasion, be cumulative, particularly where the universe of possible disjuncts is open rather than closed. For example, we can imagine a version of Blanca's case where knowledge of the recycling law is so widely dispersed within the community that proof of her newspaper-reading habits would be pointless. Such cases will be rare, though. Courts occasionally face roughly this issue in drunk-driving homicide prosecutions where the government must prove that the accused was aware of the dangers posed by drunk driving. Despite the fact that knowledge of the dangers posed by drunk driving is very widely dispersed in our culture,[226] courts routinely admit evidence of the accused's prior drunk-driving convictions on the theory that "those convictions tend[] to make it more probable that [the accused] had knowledge of the risks of driving while intoxicated."[227]

Professor Schwartz denies, of course, that the disjunction problem is generalizable in either of the ways we've identified. Again, he appears to claim that the disjunction problem arises only in cases where two conditions are satisfied, namely: (1) the jury gets from "maybe" to "probably" purely by adding

224. Schwartz, *supra* note 164, at 17.

225. The basic rule for calculating the probability of disjunctive, "either/or" propositions is additive. *See* RUMSEY, *supra* note 222, at 180. Basically, to calculate the probability that *either* event A *or* event B occurred, "you do what appears to be the most intuitive calculation—you add the two probabilities together." *Id.* Granted, there's more to the rule than this. *Id.* For one thing, you've got to be sure not to "double count" the cases where both A and B are true. *Id.* But the basic rule still is fundamentally additive. That's why it's called the "addition rule." *Id.*

226. *See* MODEL PENAL CODE & COMMENTARIES § 2.08 cmt. 1 at 359 (1985) (acknowledging that "awareness of the potential consequences of excessive drinking on the capacity of human beings to gauge the risks incident to their conduct is by now so dispersed in our culture that it is not unfair to postulate a general equivalence between the risks created by the conduct of the drunken actor and the risks created by his conduct in becoming drunk").

227. United States v. New, 491 F.3d 369, 375 (8th Cir. 2007).

up the probabilities assigned individually to specific disjuncts;[228] and (2) the universe of possible disjuncts is closed, not open.[229] Though Schwartz doesn't elaborate on this claim, it appears to be rooted in what Schwartz calls "the rule against speculation."[230] As articulated by Schwartz, this rule against speculation does not prevent juries from using a party's proof of one story-element as the basis for inferring that another, missing story-element must have transpired somehow or other.[231] But the rule against speculation does, according to Schwartz, prohibit parties from using "maybe" evidence to suggest how, exactly, this missing story-element might have transpired.[232]

Schwartz's version of the rule against speculation lacks any basis in the law. Granted, Federal Evidence Rule 701 prohibits witnesses from speculating.[233] Specifically, it prohibits witnesses from drawing inferences that aren't "rationally based on the witness's perception."[234] Suppose, for example, that Blanca's housemate were to testify, purely on the basis of her background knowledge of Blanca's newspaper-reading habits, that "Blanca read the newspaper story about the new recycling law." This testimony would be speculative, since it isn't rationally based on the witness's perception. But the housemate's testimony wouldn't be speculative if she testified only about the reading habits themselves. Indeed, Rule 406 on "habit" specifically permits courts to admit "[e]vidence of a person's habit . . . to prove that on a particular occasion the person . . . acted in accordance with the habit."[235] In sum, though the rule against speculation would preclude the *roommate* from drawing the critical inference, it wouldn't prohibit the roommate from providing testimony on the basis of which the *jury* might draw this inference. The rule against speculation, like most evidence rules, limits what parties and witnesses may do, not what juries may do.[236]

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228. Schwartz, *supra* note 40, at 153 ("[T]he sum total of the disjunctive evidence must reach the threshold of evidence sufficient to support a finding.").

229. *Id.* ("[T]he disjunctive possibilities (for example, the possible causal agents) must be specified . . . .").

230. *Id.* at 124–25 (identifying "the rule against speculation" as the ultimate "justification" for the "foundation requirements" that are the subject of his thesis).

231. *Id.* at 135.

232. *Id.* at 145–46.

233. *See* United States v. Perez, 962 F.3d 420, 435 (9th Cir. 2020).

234. FED. R. EVID. 701.

235. FED. R. EVID. 406.

236. The "helpfulness" requirement in Rule 702 is the exception that proves the rule. Rule 702 on expert testimony requires a closer "fit" between the evidentiary fact and the fact of consequence than does Rule 401. *See* Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 591–92 (1993). This "fit" requirement is addressed, at least in part, to the danger of jury speculation. *See* MERRITT & SIMMONS, *supra* note 38, at 796. But the danger posed by ill-fitting expert testimony is not, or is not primarily, that jurors will use a "maybe" to prove a "probably." The danger, rather, is that jurors will wrongly suppose that the expert's testimony speaks directly to the fact of consequence, "when that may not be a sound conclusion at all." Clark v. Arizona, 548 U.S. 735, 775 (2006) (discussing dangers associated with psychiatric testimony in criminal cases); *see also* MERRITT & SIMMONS, *supra* note 38, at 796 ("The jury may believe that a complex professional opinion resolves a key factual dispute, when the opinion relates only to a minor subpoint."). More to the point, if

This is not to say that the law doesn't ever concern itself with *jury* speculation. It does. The possibility that an item of evidence might encourage the jury to engage in unwarranted speculation might occasionally justify the exclusion of evidence under Federal Evidence Rule 403, for example.[237] The possibility of unwarranted jury speculation also appears to be the basis for the "helpfulness" requirement in Federal Rule of Evidence 702 on expert testimony.[238] Expert testimony sometimes poses a heightened risk of jury speculation, as the Supreme Court has acknowledged.[239] Sometimes, for example, jurors may suppose the expert's testimony speaks directly to a fact of consequence "when that may not be a sound conclusion at all."[240] Granted, then, the risk that the jury will draw an *unwarranted* inference from an item of evidence sometimes justifies exclusion of the evidence.

The trouble with Schwartz's argument, though, is that jury inferences from "maybe" evidence aren't always or even usually unwarranted, as the disjunction cases show. Again, where a party undertakes to prove a particular element of its case disjunctively—as where the government undertook to show that Blanca learned of the recycling law *somehow or other*—evidence that shows how the element *might* have transpired sometimes will help the jury conclude by a preponderance that it transpired somehow or other.[241] Evidence that a knife found in the defendant's possession "could have been" the knife used by the murderer to break into the victim's house, for example, might help show that the defendant committed the murder.[242] Admitting the knife, then, doesn't pose a "danger of confusion [or] speculation."[243]

In the end, what Schwartz appears to mean when he invokes the rule against speculation is just that evidence of a "might" can't ever be used to prove that a fact of consequence is more probable than not. But this, of course, is what he's trying to prove. So his argument is circular.

Schwartz were correct in thinking that the evidence rules generally exclude evidence that might encourage jury speculation, Rule 702's helpfulness requirement would be superfluous.

237. *See* People v. Farnam, 47 P.3d 988, 1025 (Cal. 2002), *as modified* (July 31, 2002) (identifying "danger of confusion [or] speculation" as among the counterweights to probative value under California's counterpart to Federal Evidence Rule 403).

238. See MERRITT & SIMMONS, *supra* note 38, at 797.

239. *See* Clark v. Arizona, 548 U.S. 735, 775 (2006) (discussing dangers associated with psychiatric testimony in criminal cases); *see also* MERRITT & SIMMONS, *supra* note 38, at 796 ("The jury may believe that a complex professional opinion resolves a key factual dispute, when the opinion relates only to a minor subpoint.").

240. *Clark*, 548 U.S. at 775.

241. *See* Rothstein, *supra* note 166, at 12–13 (evidence that the defendant might have used a meatgrinder to dispose of the murder victim's body might help the jury conclude by a preponderance that the defendant disposed of the victim's body somehow or other).

242. *Farnam*, 47 P.3d at 1024–25.

243. *Id.* at 1025.

G. Disjunction is everywhere, because lacunae are everywhere

Contrary to what Schwartz claims, then, the disjunction problem *is* "generalizable." The disjunction problem is not confined to cases where, as in the Blanca hypothetical, the jury gets from "maybe" to "probably" purely by adding up the probabilities assigned individually to specific disjuncts. Nor is the problem confined to cases where, as in the Blanca hypothetical, the universe of disjuncts is closed rather than open. Because the disjunction problem is generalizable in these ways, the class of cases where the disjunction problem arises—the class of cases where "a 'maybe' can make a 'probably' more probable"[244]—is extremely broad.

Consider again the *Walker* case, where Deonte Walker was charged with murder after allegedly shooting and killing Joshua Brown.[245] In Walker's case, as in other cases, the government was required to prove a "singular narrative."[246] Some facts in this narrative would have been easy for the government to prove beyond a reasonable doubt—the identity of the victim, for example, and the number of bullets found in his body.[247] Others would have been somewhat harder to prove, but still would have been supported by very substantial evidence—the killer's identity, for example, and the motive for the killing.[248] The government's narrative also had lacunae, though. For example, "[t]he gun used to kill [Brown] was never recovered," so the government couldn't say exactly what gun had been used to kill Brown.[249]

This lacuna in the government's case isn't just a lacuna, though. It's a disjunction. The jury could not have banished all thoughts of the firearm from its deliberations. The existence of the firearm, and its possession by the killer in the moment of the homicidal act, were essential components of the government's singular narrative, after all.[250] If the jury had concluded that no firearm was present when Brown was killed, or that Walker hadn't possessed the firearm, they would have been required to acquit. In effect, then, the jury was required to evaluate the truth of a disjunctive proposition of roughly this form: "Walker possessed X_1, which was the gun used to kill Brown, *or* Walker possessed X_2, which was the gun used to kill Brown, *or* Walker possessed X_3, which was the gun used to kill Brown," etc. The jury wasn't required to decide which of these alternatives was true. But it was required to decide beyond a reasonable doubt that *one* of them was true. So *Walker* is a disjunction case.

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244. *See* Schwartz, *supra* note 165, at 17.
245. People v. Walker, No. B283945, 2018 WL 6039908, at *1 (Cal. Ct. App. Nov. 19, 2018).
246. Schwartz, *supra* note 40, at 126–27.
247. *See Walker*, 2018 WL 6039908, at *1–4 (summarizing evidence).
248. *See id.*
249. *Id.* at *1.
250. *See* Schwartz, *supra* note 40, at 127.

In *Walker*, as in other disjunction cases, "a 'maybe' can make a 'probably' more probable."[251] Granted, much of the evidence that tended to prove the critical disjunction—much of the evidence that Walker possessed the gun used to kill Brown—was evidence that tended to prove the disjunction as a whole, rather than any specific disjunct. Evidence that Brown's companion saw Walker shoot Brown, for example, tended to show that Walker possessed the murder weapon, *whatever it was*.[252] Still, evidence that tended to increase the probability of one or another of the *specific disjuncts*—evidence that Walker possessed one or another of the many specific nine-millimeter guns that *might* have been used to kill Brown—also would have increased the likelihood that the disjunction as a whole was true. Most, or many, members of the general public don't possess or have ready access to nine-millimeter handguns. By virtue of the fact that Walker possessed this particular Tec-9 handgun, then, we are able to place Walker in a class of persons among whom the likelihood of having committed this murder "is greater than among the general public."[253]

What is true of *Walker* is true of other cases, too. Disjunctions are everywhere because lacunae are everywhere.[254] In a theft case, for example, the government might be unable to say exactly how the defendant acquired the combination to the victim's safe. To prove its case, however, the government will have to persuade the jury beyond a reasonable doubt that the defendant acquired the combination *somehow or other*. Likewise, in a murder case, the government might be unable to say exactly how the defendant disposed of the victim's body.[255] To prove its case, however, the government will have to persuade the jury beyond a reasonable doubt that the defendant disposed of the victim's body *somehow or other*, as Professor Rothstein argued.[256] In cases like these, evidence that shows what *might* have happened—that shows how the defendant *might* have acquired the safe's combination, or *might* have disposed of the victim's body—will make the critical disjunction more probable than it otherwise would be.[257]

This isn't to say that every fact is proved disjunctively. There might well be cases where the jury wouldn't be justified in assigning any weight to a particular piece of evidence unless it concluded that some predicate fact was true by a preponderance. Still, disjunctive proof is common enough, and difficult enough to distinguish from other sorts of proof, that it wouldn't be practicable to

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251. *See* Schwartz, *supra* note 165, at 17.

252. *Walker*, 2018 WL 6039908, at *1–2 (summarizing testimony of Kennisha Johnson).

253. James, *supra* note 185, at 699.

254. *See* Friedman, *supra* note 188, at 95 ("The fact finder must construct and group infinitesimally thin story lines, each of which is consistent with the evidence and some of which are consistent with the hypothesis at issue; eventually, the fact finder must compare the relative plausibility of the group of stories consistent with the hypothesis at issue and the group of stories inconsistent with that hypothesis.").

255. Rothstein, *supra* note 166, at 12.

256. *Id.* at 12–13.

257. *Id.* at 13.

require judges to apply one test of relevancy to disjunctive proof and another to non-disjunctive proof. This is probably one reason why the federal evidence rules define logical relevancy as "any tendency to make a fact [of consequence] more or less probable than it would be without the evidence."[258] This standard is undemanding enough to serve as a threshold requirement both in cases where proof is disjunctive and in cases where it isn't.

What this all means, finally, is that the prescriptive interpretation of Rule 901 doesn't work. The prescriptive interpretation, again, would require judges to use Rule 104(b) on "conditional relevancy" to prescribe the content of the proponent's "claim."[259] The proponent of physical or documentary evidence would be required to introduce "evidence sufficient to support a finding" as to every fact on which the probative value of the exhibit "depends"—every fact whose negation would deprive the exhibit of probative value. This test would require the exclusion of exhibits like the gun photos in the *Walker* case. More generally, it would require the exclusion of exhibits whose probative value lay in their tendency to prove critical facts disjunctively. Given the central role played by disjunctive proof in trials, the prescriptive interpretation would exclude too much evidence.

II. THE DESCRIPTIVE INTERPRETATION

The Advisory Committee's note is wrong. Rule 901 can't possibly require proponents of physical and documentary evidence to introduce evidence sufficient to support a finding by a preponderance as to every fact on which the relevance of the exhibit supposedly "depends." Still, Rule 901 *does* require the exhibit's proponent to introduce sufficient evidence of *something*.[260] If it doesn't require the proponent to introduce sufficient evidence of the predicate facts—of the facts on which the probative value of the evidence "depends"—then of what facts, exactly, *does* Rule 901 require the proponent to introduce sufficient evidence?

The answer, as I'll explain in this Part, is that Rule 901 merely requires the proponent of physical or documentary evidence to introduce evidence

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258. FED. R. EVID. 401. Another good reason for adopting Rule 401's "any tendency" test of logical relevancy (in preference to Schwartz's sufficiency test) is that "stopping a trial to entertain such [sufficiency] arguments, decide which point should be proved first, obtain a commitment to prove some other point, assess the sufficiency of proof, and even instruct the jury, would confound trials, confuse everyone, and hamstring lawyers and judges." ALLEN ET AL., *supra* note 39, at 221; *see also* 1 MUELLER & KIRKPATRICK, *supra* note 44, § 4.2, at 536 ("[S]ome relevancy questions are bound to arise in early stages when events and conditions are mostly in the shadows. This fact of trial life presents a good reason for a liberal relevancy standard . . . ."); Douglas Walton, *Argument Schemes: The Basis of Conditional Relevance*, 2003 MICH. ST. L. REV. 1205, 1234 (2003) ("It seems fairly clear . . . that the intent of the FRE is to provide rules of relevance that give guidance to a judge on how to rule on whether evidence should be admissible or not, at any given point during a trial.").

259. *See* Schwartz, *supra* note 40, at 107–10.

260. *See* FED. R. EVID. 901(a).

sufficient to support a finding as to the *evidentiary fact* itself. In every case where a party offers physical or documentary evidence, the party necessarily will make—usually through the sponsoring witness but sometimes through the exhibit itself—an explicit claim about how the exhibit is connected to the case. Rule 901 just requires the judge to determine whether this claim, this evidentiary fact, is *reliable*. Rule 901 isn't about relevancy, then. It doesn't tell the judge how to analyze the inferential relationship *between* the evidentiary fact and the fact of consequence. Rather, Rule 901 is about reliability. It just tells the judge how to evaluate the evidentiary fact itself.

This "descriptive" interpretation of Rule 901, as I'll call it, has at least two important advantages over the prescriptive interpretation. First, as I'll explain, it makes Rule 901 the counterpart of the federal evidence rules' two other absolutely basic foundational requirements, namely, the *Daubert* test for expert testimony (as codified in Rule 702) and Rule 602's requirement of personal knowledge. Neither of these two complementary foundational requirements is concerned with the relationship *between* the evidentiary fact and the fact of consequence. Neither of them is about relevancy, in other words. Rather, both requirements are concerned only with the evidentiary fact's reliability.[261] Both require the judge merely to determine whether the party has introduced evidence sufficient to support the evidentiary fact itself.[262]

The second advantage of the descriptive interpretation is that, unlike the prescriptive interpretation, it actually is consistent with the text of Rule 901. Though, as I've acknowledged, the Advisory Committee's Note to Rule 901 supports the prescriptive interpretation, the rule's text does not. The prescriptive interpretation requires us to misread the phrase "what the proponent claims it is" as "what the proponent *ought to claim* it is." This interpretation always strained the text. The descriptive interpretation, by contrast, takes the rule at its word. It requires the proponent only to introduce evidence sufficient to show that the evidence is what the proponent *actually* claims it is. It requires the proponent only to prove the evidence is genuine.

A. Towards a descriptive alternative: Judge Becker's opinion in Zenith Radio Corp. v. Matsushita Elec. Indus. Co.

I said earlier that judges usually don't even acknowledge the existence of the "what" question, much less try to answer it. There's an exception. Namely, Judge Edward Becker's 1980 opinion in *Zenith Radio Corp. v. Matsushita Elec.*

261. Daubert v. Merrill Dow Pharms., Inc., 509 U.S. 579, 594–95 (1993); United States v. Lemire, 720 F.2d 1327, 1347 (D.C. Cir. 1983).

262. *See* FED. R. EVID. 602, 702.

Indus. Co.[263] When Judge Becker wrote the *Zenith* opinion, he was a federal district court judge in the Eastern District of Pennsylvania.[264] But he later would spend twenty-five years as a judge on the Third Circuit Court of Appeals and would be recognized as a leading authority on the law of evidence.[265] His opinion in *Zenith Radio* is characteristically thoughtful.

The *Zenith Radio* case was an antitrust action by American television manufacturers against their Japanese counterparts.[266] The plaintiffs claimed that the defendants "had conspired to take over the American consumer electronic products industry and thereby to drive [the plaintiffs] out of business."[267] One of the many evidentiary issues in the case concerned the admissibility of diaries kept by officers of the defendant companies—diaries that ostensibly showed what happened at "allegedly conspiratorial meetings."[268] The defendant companies argued that the plaintiffs, to authenticate the diaries under Rule 901, should be required to show not only that the diaries were, in fact, the diaries of the defendant companies' officers but *also* that the diaries' accounts of several critical conversations were "accurate and reliable accounts."[269]

The defendants' argument was based on the prescriptive interpretation of Rule 901. As summarized by Judge Becker, the defendants' argument was that the authentication requirement "encompasses all of what the proponent '*must* claim [the exhibit] is in order to use it as he wishes to.'"[270] According to the defendants, then, the authentication requirement encompasses every fact on which the relevancy of the exhibit "depends"—every fact whose negation would deprive the exhibit of probative value.[271] On this interpretation, Rule 901 would have required the plaintiffs in *Zenith* to show that the diaries were accurate accounts of the conspiratorial meetings. If the diaries were inaccurate, after all, they wouldn't be relevant, as indeed Judge Becker acknowledged: "What does it matter then that the diary is not a forgery, if it is not an accurate and reliable account of what transpired at the meetings Yajima purported to record?"[272]

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263. Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F.Supp. 1190 (E.D. Pa. 1980), *aff'd in part, rev'd in part sub nom. In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 106 S. Ct. 1348, 89 L. Ed. 2d 538 (1986).

264. *Id.*

265. *See* Stephen A. Saltzburg et al., *Keeping the Reformist Spirit Alive in Evidence Law*, 149 U. PA. L. REV. 1277, 1286 (2001).

266. Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 494 F. Supp. 1161, 1164 (E.D. Pa. 1980).

267. *Id.*

268. Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F.Supp. 1190, 1220–21 (E.D. Pa. 1980), *aff'd in part, rev'd in part sub nom. In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 106 S. Ct. 1348, 89 L. Ed. 2d 538 (1986).

269. *Id.*

270. *Id.* at 1220.

271. *Id.* at 1220–21.

272. *Id.* at 1221.

Judge Becker rejected the prescriptive interpretation of Rule 901.[273] He said that authentication is about "genuineness," not about conditional relevancy: "[N]otwithstanding the apparent sweep of 901, created by its . . . expansive locution, *i.e.*, the prescription that authentication is satisfied by evidence sufficient to support a finding that [it] is 'what its proponent claims,' the notion of authentication is a narrow one, akin to the notion of genuineness."[274] Accordingly, Judge Becker said that Rule 901 was satisfied by evidence that the diaries were genuine, i.e., that they really were authored by the defendant companies' officers.[275] The question whether the diaries' accounts of the conspiratorial conversations were accurate went to the issue of logical relevance, said Judge Becker, not to the question of authentication.[276] It therefore was to be resolved under the "any tendency" standard in Rule 401.[277]

B. What is genuineness?

Judge Becker's "genuineness" approach seems, intuitively, like a promising alternative to the prescriptive, conditional-relevancy approach. But what exactly did Judge Becker mean by "genuineness"? The standard dictionary definition of "genuine" says, basically, that being "genuine" means "[a]ctually possessing the *alleged* or *apparent* attribute or character."[278] Under this and similar definitions, there are basically two ways for something to be "genuine": (1) it can be what it *appears* or *purports* to be; or (2) it can be what some person *alleges* or *claims* it is.[279]

The first way for an exhibit to be genuine—that is, by being what it *appears* or *purports* to be—can't be what Rule 901 requires. For starters, requiring exhibits to be what they appear or purport to be would result in the exclusion of critical evidence in lots of cases. Suppose, for example, that Smith is prosecuted for theft after using a forged gift certificate to obtain a bike from a bike shop. In Smith's prosecution, the government naturally will want to

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273. *Id.* at 1222.

274. *Id.*

275. *Id.* at 1221–22.

276. *Id.* at 1221.

277. *Id.*; *see also* State v. Jenkins, 466 S.E.2d 471, 475 (W. Va. 1995) ("This does not mean, however, that a showing of authenticity requires a 'showing of the truth of the assertions contained in a writing or recording. (E.g., a letter may be authenticated as having been written by a certain party, but its assertions may be flagrant and intentional falsehood.)'").

278. *Genuine*, AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (3d ed. 1992) (emphasis added); *see also Genuine*, MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY (10th ed. 1993) (defining "genuine" as "actually having the reputed or apparent qualities or character"); *cf.* BRYAN A. GARNER, GARNER'S DICTIONARY OF LEGAL USAGE 95 (3d ed. 2011) ("authentic; genuine; bona fide; veritable. All these adjectives describe something that is precisely what it is said to be or purports to be.").

279. *Cf.* MUELLER & KIRKPATRICK, *supra* note 44, § 9.2, at 330 ("[T]he proponent of a matter satisfies the authentication requirement by adducing sufficient evidence that it is what it purports to be (or what the proponent claims it to be) . . . .").

introduce the forged gift certificate itself, perhaps through the clerk to whom Smith presented the gift certificate, or perhaps through the police officer who obtained the gift certificate from the clerk. It obviously wouldn't make sense, though, to require the government to prove that the gift certificate is what it appears to be, namely, a real gift certificate. The gift certificate is relevant evidence precisely because it's *not* a real gift certificate.

The second way for an exhibit to be "genuine"—namely, by being what it is "alleged" or "claimed" to be—is a better fit. When we use the word "genuine" in this second way, we're not concerned with what the exhibit *appears* to be. We're not concerned, that is, with what the exhibit "claims" or "alleges" about itself. We're concerned, rather, with what *some person* claims or alleges about the exhibit. This, as it happens, is exactly how Rule 901's text frames the authentication requirement. Rule 901 even tells us exactly whose "claim" or "allegation" provides the basis for judging the genuineness of the exhibit, namely, the proponent's. Rule 901 requires the exhibit's proponent to introduce evidence sufficient to support a finding that the exhibit "is what the proponent claims it is."[280] It requires genuineness of the second kind, then.

This is not to say that courts never require genuineness of the first kind—never require the proponent of physical or documentary evidence to show that the item is what it appears to be. They do. Courts regularly, if misleadingly, frame the question posed by Rule 901 as whether the exhibit "is what it purports to be,"[281] as do some commentators.[282] But the best explanation for these cases—as I'll argue in Part II.H, below—is that when an item of physical and documentary evidence itself makes explicit claims about what it is, the court sometimes is justified in *imputing* these claims to the proponent of the evidence. If, for example, a party offers in evidence a letter that bears the signature of a particular individual, it often will make sense to impute to the exhibit's proponent the letter's "claim" to having been written or adopted by that individual, at least where the exhibit's proponent doesn't expressly disavow this "claim."[283] In these cases, though, the imputation is critical. What ultimately

280. FED. R. EVID. 901(a).

281. *See, e.g.*, United States v. Alicea-Cardoza, 132 F.3d 1, 4 (1st Cir. 1997) ("Generally, if the district court is satisfied that the evidence is sufficient to allow a reasonable person to believe the evidence is what it purports to be, Rule 901(a) is satisfied . . . ."); PDVSA US Litig. Tr. v. Lukoil Pan Ams., LLC, 991 F.3d 1187, 1191 (11th Cir. 2021) (explaining that Rule 901 "requires a proponent to make out a prima facie case that the proffered evidence is what it purports to be"); State v. Thompson, 777 N.W.2d 617, 624 (N.D. 2010) ("Under the federal rule, . . . the proponent must provide proof sufficient for a reasonable juror to find the evidence is what it purports to be.").

282. WEINSTEIN & BERGER, *supra* note 94, § 8.01[1] at 8-3 ("Rule 901(a) provides that the evidentiary requirement of authentication or identification is satisfied by evidence sufficient to support a finding that the proffered evidence is what it purports to be.").

283. *Cf.* Griffin v. State, 19 A.3d 415, 418, 423 (Md. App. Ct. 2011) (holding that authentication would require the proponent of the evidence to prove the identity of the person who authored the MySpace posting, despite the fact that the sponsoring witness explicitly disavowed ("I can't say that") any claim to know the author's identity).

matters, then, is genuineness of the second kind. What matters is whether the object is what the proponent "claims" it is.

In cases like *Zenith*, as Judge Becker acknowledged, the "genuineness" interpretation is less demanding than the prescriptive interpretation.[284] That is, it requires proof of fewer facts than does the prescriptive interpretation. But the difference between the two interpretations isn't merely quantitative. Under the prescriptive test, recall, the judge uses the doctrine of conditional relevancy to construct the proponent's "claim" for him or her prescriptively. Under the genuineness approach, by contrast, the judge doesn't construct the proponent's claim for him or her. The question whether an exhibit is "genuine" has no content or meaning apart from what someone *actually* claims about the exhibit. Genuineness, after all, is nothing more nor less than "being actually and exactly what is claimed."[285] Under the genuineness interpretation of Rule 901, then, the phrase "what the proponent claims" just refers to what the proponent actually claims the exhibit is.[286] The phrase is descriptive rather than prescriptive.

One consequence of the descriptive interpretation is that the proponent of physical or documentary evidence sometimes gets to choose between two different ways of authenticating a particular piece of evidence. Consider this case, which is loosely based on a hypothetical from the popular Merritt and Simmons evidence textbook: Darwin is on trial for robbing Vine. According to Vine, the items taken from him during the robbery included a blue nylon wallet. At Darwin's trial, the prosecutor hopes to introduce a blue nylon wallet that was discovered by Officer Ott in a dumpster behind Darwin's apartment building.[287] As to what facts, though, will the prosecutor be required to introduce "evidence sufficient to support a finding"? Must she introduce evidence sufficient to support a finding that the wallet is the one stolen from Vine? Or could she instead just show that the wallet is the one discovered by Officer Ott in the dumpster behind Darwin's apartment building?

Under the prescriptive interpretation, the prosecutor probably would have to introduce evidence sufficient to prove *both* facts. The prosecutor appears to be introducing the wallet for the sake of connecting Darwin to the robbery.[288] But the wallet's probative value for this purpose depends both (1) on whether

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284. Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F.Supp. 1190, 1222 (E.D. Pa. 1980), *aff'd in part, rev'd in part sub nom. In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 106 S. Ct. 1348, 89 L. Ed. 2d 538 (1986).

285. MISH, *supra* note 278, at 77 ("[S]yn AUTHENTIC, GENUINE, BONA FIDE mean being actually and exactly what is claimed.").

286. *See* ALLEN ET AL., *supra* note 39, at 174 ("FRE 901(a) requires the proponent of an exhibit to do two things: (1) to state what the proponent *claims* the exhibit to be; and (2) to produce evidence 'sufficient to support a finding' that it is what the proponent claims.").

287. MERRITT & SIMMONS, *supra* note 38, at 909.

288. *See* MOSTELLER ET AL., *supra* note 78, § 221, at 82 (explaining that under the prescriptive interpretation, the proponent's theory "as to why the [exhibit] is relevant determines what the proponent claims the [exhibit] is").

the wallet really was the one taken from Vine; *and* (2) on whether the wallet really was the one found by Officer Ott in the dumpster. If the wallet wasn't the one taken from Vine, or wasn't the one found by Ott in the dumpster, then it doesn't connect Darwin to the robbery. Under the prescriptive interpretation, then, the prosecutor probably would be required to introduce "evidence sufficient to support a finding" as to both facts.[289]

Under the descriptive interpretation, by contrast, the prosecutor gets to choose.[290] If the prosecutor were to introduce the wallet through Vine, the prosecutor would elicit testimony by Vine that the wallet was the one stolen from him. This, then, would be what the prosecutor "claims" the wallet is, namely, the wallet stolen from Vine. If, instead, the prosecutor were to introduce the wallet through Officer Ott, the prosecutor would elicit testimony by Ott that the wallet was the one she found in the dumpster behind Darwin's apartment building. This, then, would be what the prosecutor "claims" the wallet is, namely, the one discovered by Officer Ott in the dumpster behind Darwin's apartment building.[291] Accordingly, the prosecutor could satisfy Rule 901(a) *either* by proving that the wallet was the one found by Ott in the dumpster or by proving that the wallet is the one taken from Vine.

C. Does the descriptive interpretation demand too little of the evidence's proponent?

At first glance, the descriptive interpretation seems no less problematic than the prescriptive one. Just as the prescriptive interpretation appeared to demand *too much* of the proponents of physical and documentary evidence, the descriptive interpretation appears at first glance to demand *too little*. If the proponents of physical and documentary evidence get to decide for themselves what they "claim" the evidence is, and if all they're required to prove is that the evidence is what they claim it is, then the proponents get to decide for themselves exactly how much, or how little, they're required to prove by way of authenticity.

Take the blue wallet case. If the government were to introduce the wallet through Officer Ott, the descriptive interpretation would require the government merely to show that wallet was, in fact, the one discovered by Ott

289. FED. R. EVID. 901(a).

290. MERRITT & SIMMONS, *supra* note 38, at 909 ("The wallet becomes relevant when the victim identifies it as the one taken from their pocket, or when a police officer identifies the wallet as the one found in the defendant's house. A piece of evidence becomes relevant only when a party provides information linking it to the controversy."); *see also* Lawrence A. Alexander & Elaine A. Alexander, *The Authentication of Documents Requirement: Barrier To Falsehood Or To Truth?*, 10 S.D. L. REV. 266, 272 (1973) ("[M]ost lawyers, judges, and commentators conceive of authentication as a process involving only a small part of the evidence for or against the [ultimate fact] . . . .").

291. *Cf.* Schwartz, *supra* note 40, at 103–04 (acknowledging that in cases like the blue-wallet case, where in Schwartz's view Rule 901 ought to require the proponent of the evidence to prove multiple predicate facts as "foundation," courts routinely receive the exhibit "during the testimony of one of those witnesses who has offered only a snippet of the foundation").

in the dumpster behind Darwin's apartment building. This, after all, is what the government "claims" through its sponsoring witness, Officer Ott. Under the descriptive interpretation, then, Rule 901 wouldn't require the government to introduce any evidence on the question whether the wallet was, or might have been, the one that was stolen from Vine. As a consequence, the judge, in ruling on authentication, would lack information critical to the question of the wallet's relevancy.

Or take *People v. Walker*,[292] where the government wanted to introduce several photos recovered by the police from defendant Walker's cell phone. The photos appeared to show Walker holding the kind of gun that was used to kill murder victim Joshua Brown, namely, a nine-millimeter handgun.[293] In cases like Walker's, where the probative value of the proffered photograph depends on its accuracy, courts traditionally have required the proponent of the evidence to show that "the photograph fairly and accurately represents the person, place, or object that it purports to portray."[294] Under the descriptive interpretation, though, proof of the photo's accuracy wouldn't be required. If the government "claimed" through the sponsoring witness only that the photos were, say, "photos found on defendant's phone," the government would be required under the descriptive interpretation only to prove that the photos were, in fact, "photos found on defendant's phone."[295]

Finally, consider the *Zenith Radio* case.[296] In *Zenith Radio*, again, the plaintiffs wanted to introduce diaries that ostensibly had been authored by officers of the defendant companies.[297] In addressing the admissibility of these diaries, Judge Becker, as we've seen, rejected the defendants' expansive prescriptive interpretation of Rule 901.[298] Nevertheless, even Judge Becker appeared to assume that Rule 901 would require the plaintiffs to introduce evidence sufficient to show that the diaries had, in fact, been authored by officers of the defendant companies.[299] Judge Becker appeared to assume that proof of "the origin or authorship of an item, or the connection of an item to a particular individual or party" was a nonnegotiable requirement of authentication under Rule 901.[300] It would not be enough, he said, for the plaintiffs merely to show

292. People v. Walker, No. B283945, 2018 WL 6039908 (Cal. Ct. App. Nov. 19, 2018).

293. *Id.* at *3.

294. GLEN WEISSENBERGER & JAMES J. DUANE, FEDERAL RULES OF EVIDENCE: RULES, LEGISLATIVE HISTORY, COMMENTARY, AND AUTHORITY 643 (6th ed. 2009).

295. *Walker*, 2018 WL 6039908, at *8 n.11.

296. Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F.Supp. 1190 (E.D. Pa. 1980), *aff'd in part, rev'd in part sub nom. In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 106 S. Ct. 1348, 89 L. Ed. 2d 538 (1986).

297. *Id.* at 1221.

298. *Id.* at 1221–22.

299. *Id.*

300. *Id.*; *see also* MOSTELLER ET AL., *supra* note 78, vol. 2, § 221, at 82–83 (acknowledging that authentication of a writing "typically" requires proof "that it has some specific connection to a person or organization, whether through authorship or some other relation").

that the proffered documents were, say, "documents [provided by the defendant companies] in answer to interrogatories under Rule 33(c)."[301]

Judge Becker's apparent insistence on evidence of authorship in the *Zenith Radio* case itself arguably is consistent with the descriptive interpretation of Rule 901, since the plaintiffs in *Zenith Radio* appear to have "claimed" affirmatively that at least some of the diaries were authored by specific officers.[302] Under the descriptive interpretation, though, evidence of the authorship of an item would not always be a nonnegotiable element of authentication. If a party, in proffering a particular document, were to "claim" only, say, that the document had been turned over by the party-opponent in response to a request for production, or that the document had been discovered by police during a search of the party-opponent's residence, the party would be required to prove only what it claimed. Contrary to Judge Becker's apparent assumption, then, the party would be able to evade the responsibility for proving authorship merely by declining to make any specific "claims" about authorship.

This possibility seems intuitively troubling. That is, it seems troubling that the proponents of physical and documentary evidence should be able to evade seemingly quite uncontroversial authentication requirements—proof of accuracy in the case of photographs, for example, and proof of authorship in the case of documents—merely by limiting what they "claim" about the evidence. Judge Becker, for one, did not appear to anticipate that the descriptive interpretation would fundamentally change existing authentication practices in this way.[303] He appeared, rather, to suppose that his own descriptive "genuineness" approach was more traditional, and less revisionist, than the defendants' "expansive" prescriptive approach.[304]

There are two different ways of unpacking the intuitions behind this objection. First, you could argue that what is problematic about these outcomes is that the descriptive approach permits the proponents of physical and documentary evidence to be disingenuous about what they are really "claiming." I will explore this possibility in Part II.H below. In short, I will acknowledge that identifying the proponent's "claim" about the evidence is not always as simple as just listening to what the sponsoring witness says about the exhibit. Sometimes, as where the proffered document itself purports to have been authored by a particular person, courts may well be justified in effectively *imputing* the exhibit's claims to the proponent—in treating the proponent "as if" they are making claims that they do not make explicitly.

For now, let's focus on a second way of diagnosing the intuitions evoked by these cases. On this second version of the objection, the trouble with the

301. *Zenith Radio* Corp., 505 F. Supp. at 1223.

302. *See id.* at 1267 ("Plaintiffs contend that the notebooks were authored by a Toshiba official named Seiichi Yajima . . . .").

303. *Id.*

304. *Id.* at 1222.

descriptive interpretation, as applied in these cases, is not about disingenuousness. It's about relevancy. On this version of the objection, the reason why it's troubling that the descriptive interpretation relieves the evidence's proponent of the burden of proving, say, the accuracy of a photograph, or the authorship of a document, isn't that the proponent "really" is implicitly claiming these facts. The reason why it's troubling, rather, is that these facts are absolutely central to the relevancy of the evidence. The trouble with the descriptive interpretation, on this version of the objection, is that it severs the more-or-less universally acknowledged connection between authentication and relevancy.[305] Authentication, as even Judge Becker acknowledged, has traditionally been understood to "represent a special aspect of relevancy."[306] The descriptive interpretation makes authentication about something else entirely.

The answer to this objection, which I will develop over the next four Parts, is that the authentication requirement in Rule 901 is not actually about relevancy. It's about reliability, as other so-called "foundational" requirements are too. Over the next four Parts, I will explain: (1) why reliability, as a basic condition for the admissibility of evidence, is fundamentally distinct from relevancy; (2) why Rule 901 is best understood as an application of this "universal" reliability requirement, rather than as an application of the relevancy requirement; (3) how exactly judges evaluate the reliability of physical and documentary evidence under Rule 901; and, finally, (4) why there is nothing problematic about letting the proponents of physical and documentary evidence decide for themselves what they "claim" the evidence is.

D. Reliability in the expert witness setting

We will return to the subject of authentication shortly. In this Part, we are going to take a brief detour into a subject that probably will seem far removed from authentication, namely, expert testimony. The reason for this detour is that the rules governing expert testimony are more explicit about the requirement of reliability, and about this requirement's relationship to the relevancy requirement, than are the rules governing other kinds of evidence. The rules' relative clarity about reliability mostly is a product of the Supreme Court's 1993 decision in *Daubert*.[307]

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305. *See* MUELLER & KIRKPATRICK, *supra* note 44 ("The authentication requirement may be viewed as an aspect of relevancy."); *see also* MOSTELLER ET AL., *supra* note 78, vol. 2, § 221, at 82 ("The proponent's assertion as to why the writing is relevant determines what the proponent claims the writing is . . . ."); *see also* LILLY ET AL., *supra* note 79 ("[A]uthentication is a form of conditional relevance. The authenticating evidence supplies the factual predicate that makes the [exhibit] relevant.").

306. *Zenith Radio Corp.*, 505 F. Supp. at 1221 (quoting FED. R. EVID. 901 advisory committee's note).

307. *See generally* Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993) (addressing the test for admissibility of scientific testimony).

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the Supreme Court famously repudiated the old *Frye* "general acceptance" test for scientific evidence and replaced it with the aptly named "*Daubert* test."[308] Before adopting the *Daubert* test, though, the court addressed the more fundamental question whether scientific testimony is subject to any special "test" at all.[309] The Court considered, in short, the possibility that the federal evidence rules "place no limits" at all, apart from the requirement of logical relevancy, "on the admissibility of purportedly scientific evidence."[310]

The Court concluded that the federal rules do, in fact, demand more of scientific testimony than mere relevancy.[311] What the rules require, specifically, is reliability. "[U]nder the Rules," said the Court, "the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable."[312] The Court said that this separate reliability requirement was implicit in Rule 702, which then, as now, provided that the expert witness's testimony must be grounded in "scientific, technical, or other specialized knowledge."[313] "In short," said the Court, "the requirement that an expert's testimony pertain to 'scientific knowledge' establishes a standard of evidentiary reliability."[314] To satisfy this standard, the proponent of the evidence must show both that the methodology or principles applied by the expert are "reliable" or "scientifically valid" and that the methodology or principles "properly can be applied to the facts in issue."[315] This, in a nutshell, is the *Daubert* test.

The Court in *Daubert* elaborated on how, exactly, the proponent of scientific evidence can go about proving that the evidence is reliable for purposes of Rule 702.[316] (For one thing, it identified four "factors" that inform the reliability analysis.[317]) For our purposes, though, what is most useful about *Daubert* is the Court's discussion of the relationship between this reliability requirement and another requirement imposed by Rule 702, namely, the requirement that the expert's opinion be "helpful" to the trier of fact.[318] Rule 702 says that an expert's testimony is admissible only if the testimony "will help the trier of fact to understand the evidence or to determine a fact in issue."[319]

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308. *Id.* at 588–89.
309. *See id.* at 589.
310. *Id.*
311. *Id.*
312. *Id.*
313. *Id.*; FED. R. EVID. 702(a).
314. *Daubert*, 509 U.S. at 590.
315. *Id.* at 592–93.
316. *Id.*
317. *Id.* at 593–94.
318. FED. R. EVID. 702(a).
319. *Id.* In 1993, when the Court decided *Daubert*, Rule 702 was worded slightly differently. It framed the helpfulness requirement as whether "[scientific, technical, or other specialized knowledge will] assist the trier of fact to understand the evidence or to determine a fact in issue." *Daubert*, 509 U.S. at 591.

Though courts haven't always been consistent about how they've interpreted this helpfulness requirement, the Court in *Daubert* said the helpfulness requirement "goes primarily to relevance."[320] Helpfulness, said the Court, is about the evidence's "connection to the pertinent inquiry."[321] It's about "fit."[322]

To explain the relationship between helpfulness and reliability, the Court provided an example. Suppose, said the Court, that an expert in "[t]he study of the phases of the moon" were to testify that "the moon was full on a certain night."[323] Naturally, this testimony would be "reliable," since scientists and others have understood the phases of the moon for thousands of years. This testimony would be "helpful" too, said the Court, if "darkness is a fact in issue" in the case.[324] The testimony would not be helpful, however, if the question in the case was "whether an individual was unusually likely to have behaved irrationally on that night."[325] Evidence that the moon was full has no "valid . . . connection," scientific or otherwise, to irrational behavior.[326] To bridge the gap between the fact that "the moon was full on a certain night" and the individual's supposed irrationality, then, the jury would have to speculate. This sort of gap-bridging speculation is just what the helpfulness requirement was meant to prevent.[327]

The trouble with the *unhelpful* expert, in short, is that his or her testimony doesn't go *far enough*. It leaves the jury on the wrong side of an unbridgeable inferential gap.[328] The trouble with the *unreliable* expert, by contrast, is that his or her testimony goes *too far*. It goes further than the underlying "scientific,

320. *Daubert*, 509 U.S. at 591.

321. *Id.* at 591–92.

322. *Id.* at 591 (quoting United States v. Downing, 753 F.2d 1224, 1242 (3d Cir. 1985)).

323. *Id.*

324. *Id.* Darkness would be "a fact in issue" if, for example, the credibility of an eyewitness's account hinged on the witness's ability to see what happened, as it famously did in Abraham Lincoln's defense of William Armstrong. *See* Barry R. Vickrey, *Lessons in Leadership from Lincoln the Lawyer*, 45 S.D. L. REV. 334, 338–39 (2000) ("The witness was adamant that he had seen the incident clearly, even though it occurred at eleven o'clock at night, by means of the light from an almost full moon. After Lincoln confronted the witness with an almanac that indicated that there was almost no moonlight on that night at that time, the jury acquitted Lincoln's client.").

325. *Daubert*, 509 U.S. at 591.

326. *Id.* at 592.

327. *See id.* at 595 (acknowledging that "[e]xpert evidence can be both powerful and quite misleading because of the difficulty in evaluating it"); *see also* MERRITT & SIMMONS, *supra* note 38, at 796 (explaining that "greater risks" posed by "minimally relevant evidence [that] comes from experts" justifies the requirement of "helpfulness" because "[t]he jury may believe that a complex professional opinion resolves a key factual dispute, when the opinion relates only to a minor subpoint"); *cf.* Clark v. Arizona, 548 U.S. 735, 775 (2006) ("[T]here is the potential of mental-disease evidence to mislead jurors (when they are the factfinders) through the power of this kind of evidence to suggest that a defendant suffering from a recognized mental disease lacks cognitive, moral, volitional, or other capacity, when that may not be a sound conclusion at all.").

328. *See, e.g.*, United States v. Scholl, 166 F.3d 964, 971 (9th Cir. 1999) (excluding as unhelpful a psychologist's testimony that the defendant was a pathological gambler, since this testimony might have "been mistaken [by the jury] to mean that [the defendant] lacked intent to report wins or losses because of his disorder").

technical, or otherwise specialized knowledge" would permit.[329] Suppose, for example, that an astrologer were to testify that the fact that "the moon was full on a certain night" had, in fact, caused an individual to behave irrationally. If the cause of the individual's conduct was an issue in the case—if, for example, the accused in a criminal case were asserting an "irresistible impulse" defense––then the expert's testimony might well be helpful. The testimony would not be reliable, however, since no credible scientific evidence supports the view that the full moon can directly influence an individual's mental processes.

The relationship between reliability and helpfulness can be illustrated with a somewhat hokey analogy. Suppose that you are responsible for replacing the bulb in a light fixture that is situated on a ceiling of an auditorium. The auditorium's ceiling is about 20 feet high, so you will not be able to reach it just by standing on tiptoe. You are going to need to assemble some kind of platform or scaffolding that will enable you to reach the fixture. In evaluating the various scaffolding options, you are going to face two distinct questions: (1) is this structure solid enough to hold my weight; and (2) is this structure high enough to enable me to reach the fixture. The first of these two questions corresponds, in the law of evidence, to the question of reliability. Reliability is about whether the expert's opinion is solid enough to bear weight. The second question—the "reach" question—corresponds to the question of helpfulness. When we address the question of helpfulness, we are deciding whether it would be possible to "reach" a fact of consequence from the evidentiary fact via probabilistic inference.

In summary, then, the Court in *Daubert* recognized that the legitimate persuasive value of expert testimony hinges on the answers to two fundamentally distinct questions.[330] It hinges, first, on whether the testimony is "helpful."[331] It hinges, that is, on whether a jury can, without speculating, use the expert's opinion to help it draw reasonable inferences pertinent to the facts in the issue.[332] But the legitimate persuasive value of expert testimony hinges on the answer to a second question too, namely, whether the expert's testimony is reliable.[333] It hinges, that is, on whether the expert's testimony has a solid foundation in "scientific, technical, or other specialized knowledge."[334] These two requirements are fundamentally distinct, moreover. Expert testimony can be entirely reliable without being helpful, as the astronomer's testimony would be if offered on the question "whether an individual was unusually likely to have

329. FED. R. EVID. 702(a).

330. *See Daubert*, 509 U.S. at 591; *cf.* LEMPERT ET AL., *supra* note 38, at 1197–98 ("In thinking about the persuasive power of evidence, whether testimonial or non-testimonial, it is important to keep two different aspects in mind: First, a jury must believe that certain evidence is credible before it will use the evidence to decide a case. Second, a jury must decide how to use what it finds credible.").

331. *Daubert*, 509 U.S. at 591–92.

332. *Id.* at 591.

333. *Id.* at 590.

334. FED. R. EVID. 702(a).

behaved irrationally on that night."[335] And expert testimony can be helpful without being reliable, as the astrologer's would be.

E. Reliability as a universal, and separate, condition of admissibility

So far, so good. But what does *Daubert* have to do with authentication? In particular, what does the *Daubert* reliability requirement, which applies exclusively to expert testimony, have to do with the very different subject of authentication? And what does it matter that this reliability requirement is distinct from the helpfulness requirement, which also applies exclusively to experts?

It matters a lot, actually. For starters, helpfulness isn't fundamentally different from ordinary relevance, which is required of *all* sorts of evidence, not just expert testimony.[336] As the Court said of helpfulness in *Daubert*: "This condition goes primarily to relevance. 'Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.'" [337] In effect, the helpfulness requirement is a more demanding version of the logical relevancy requirement.[338] It's more demanding because, as the Court recognized in *Daubert*, expert testimony poses unique risks—risks associated with the "difficulty [for the jury] in evaluating" expert testimony.[339] The difference between the helpfulness requirement and Rule 401's relevancy requirement is a difference of degree, though, not of kind.

What about reliability? Does *Daubert*'s reliability requirement have any counterpart outside the rules governing expert testimony? It does. In fact, one of the reasons why the Court in *Daubert* concluded that Rule 702 imposes a reliability requirement is that other sorts of evidence, too, are subject to reliability requirements.[340] Testimony by nonexperts, for example, is subject to Rule 602's personal knowledge requirement, which, as the *Daubert* Court acknowledged, "represents 'a "most pervasive manifestation" of the common law insistence upon "the most reliable sources of information."'"[341] The very fact that expert testimony is exempted from Rule 602's reliability requirement, said the *Daubert* Court, militates in favor of recognizing a separate reliability requirement in Rule 702: "Presumably, this relaxation of the usual requirement

335. *Daubert*, 509 U.S. at 591.

336. *See* ROGER C. PARK ET AL., EVIDENCE LAW: A STUDENT'S GUIDE TO THE LAW OF EVIDENCE AS APPLIED IN AMERICAN TRIALS § 14.04 at 545 (3d ed. 2011) ("This requirement is very similar, but is not necessarily identical, to the relevancy standard.").

337. *Daubert*, 509 U.S. at 591 (quoting 3 JACK B. WEINSTEIN & MARGARET A. BERGER, WEINSTEIN'S EVIDENCE ¶ 702[02], at 702–18).

338. *See* MERRITT & SIMMONS, *supra* note 38, at 796 (comparing helpfulness requirement to Rule 401, whose "relevance standard is quite low").

339. *Daubert*, 509 U.S. at 595.

340. *Id.*

341. *Id.* at 592 (quoting FED. R. EVID. 602 advisory committee's note).

of firsthand knowledge . . . is premised on an assumption that the expert's opinion will have a reliable basis in the knowledge and experience of his discipline."[342]

Reliability, then, isn't just required of expert testimony. The law's "insistence upon 'the most reliable sources of information'" extends to all sorts of evidence, as it should.[343] In every setting, not just in the expert-witness setting, the persuasive value of evidence depends on the answers to two fundamentally different questions, as cognitive scientist David Lagnado has explained.[344] It depends, first, "on the relationship between [the] evidence and [the] hypothesis"—on the inferential relationship between the evidentiary fact and the fact of consequence.[345] It depends on relevancy, in other words. But the persuasive power of evidence also depends on the "reliability" of the evidence—on matters like whether "the witness accurately observe[d] what happened" and whether "the witness accurately recall[ed] what happened."[346] Professor Richard Lempert's popular evidence casebook makes much the same point, though it reverses the order of the two critical requirements:

> In thinking about the persuasive power of evidence, whether testimonial or non-testimonial, it is important to keep two different aspects in mind: First, a jury must believe that certain evidence is credible before it will use the evidence to decide a case. Second, a jury must decide how to use what it finds credible.[347]

The "law['s] insistence upon 'the most reliable sources of information'" isn't confined just to testimony, then.[348] It logically extends to physical and documentary evidence too.[349] As Ronald Allen's evidence casebook explains, Rule 901 is grounded in the same "universal principle" as Rules 602 and 702 are, namely, "that no evidence is admissible until it is first shown to be what its proponent claims that it is."[350] Granted, "[t]he foundational requirements differ for each type of evidence."[351] Rule 602 requires that the witness's testimony be grounded in the witness's "personal knowledge."[352] By contrast, Rule 702 requires that the expert's opinion be grounded in "the knowledge and experience of his [or her] discipline."[353] And Rule 901 requires simply that the

342. *Id.*
343. *Id.*
344. LAGNADO, *supra* note 53, at 139.
345. *Id.*
346. *Id.* at 140.
347. LEMPERT ET AL., *supra* note 38, at 1197–98.
348. *Daubert*, 509 U.S. at 592 (quoting FED. R. EVID. 602 advisory committee's note).
349. *Id.*
350. ALLEN ET AL., *supra* note 39, at 167.
351. *Id.*
352. FED. R. EVID. 602.
353. *Daubert*, 509 U.S. at 592.

exhibit be "what the proponent claims it is."[354] Despite these differences, though, these rules are one another's counterparts. They all impose, in relation to particular sorts of evidence, an absolutely basic reliability requirement.

Under Rules 602 and 901, moreover—as under Rule 702—this reliability requirement is fundamentally distinct from the requirement of logical relevancy. To begin with, evidence can be *relevant* without qualifying as *reliable* under these rules.[355] Lay testimony, for example, can be relevant without satisfying the reliability requirement imposed by Rule 602, as Professor Dale Nance has explained.[356] "Suppose," says Professor Nance, "that a witness in a homicide case takes the stand and simply declares under oath that she knows who the killer is and that it is the defendant."[357] This testimony obviously wouldn't satisfy Rule 602, since the government hasn't introduced evidence "sufficient to support a finding that the witness has personal knowledge of the matter."[358] Still, as Nance says, "[t]here can be no doubt that this testimony is relevant, at least if the identity of the killer is contested."[359] So long as there's a non-zero probability that the witness knows what she's talking about—"[a]s long as we are not *certain* that she is either making it up or basing it on completely unreliable hearsay"[360]—the evidence makes a fact of consequence at least somewhat more probable than it would be without the evidence, which is all that Rule 401 requires.

Likewise, physical and documentary evidence can be relevant without satisfying the reliability requirement imposed by Rule 901. If, for example, the government in the *Walker* case were somehow to have introduced the photograph of Walker holding a Tec-9 pistol without saying and showing what the photograph was, the photograph still would have made a fact of consequence "more . . . probable than it would be without the evidence."[361] So long as there was a non-zero probability that the photograph actually depicted Walker holding the murder weapon—so long as the jury couldn't be certain that the photograph was a fake, or that the weapon shown in the photograph wasn't the murder weapon—the photograph would have made it at least somewhat more probable that Walker was Brown's killer.

Just as evidence can be *relevant* without being *reliable*, so too evidence can be *reliable* without being *relevant*. Rule 602, for example, just requires that the

354. FED. R. EVID. 901(a).

355. *See* Nance, *supra* note 42, at 489.

356. *Id.*; *see also* Friedman, *supra* note 60, at 474–75 ("[I]n some cases testimony may have substantial probative value although the witness lacks personal knowledge of the subject matter.").

357. Nance, *supra* note 42, at 489.

358. FED. R. EVID. 602.

359. Nance, *supra* note 42, at 489.

360. *Id.*

361. FED. R. EVID. 401.

witness have "personal knowledge of *the matter*."[362] It just requires, in other words, that the witness have personal knowledge of whatever "matter" the witness happens to testify about.[363] At least as far as Rule 602 is concerned, then, the "matter" to which the witness testifies might be wholly irrelevant. If a witness in the *Walker* case had testified to having personally observed Walker carrying a nine-millimeter pistol on the day of Brown's murder, this testimony obviously would satisfy Rule 602's requirements. But the testimony equally would satisfy Rule 602's requirements if the witness instead had testified to having observed Walker carrying a twelve-gauge shotgun, despite the fact that this testimony would have been wholly irrelevant.[364]

To put the same point somewhat differently, and somewhat more narrowly, Rule 602's reliability requirement is focused exclusively on the probability associated with the "evidentiary fact" itself—on the probability associated with whatever proposition the witness actually testifies to. It isn't concerned with the probabilities associated with other facts in the case, even facts on which the probative value of the testimony depends. In the *Walker* case, for example, the probative value of our hypothetical witness's testimony obviously depends on whether the gun used to kill Brown was a nine-millimeter pistol or a twelve-gauge shotgun.[365] But the reliability of the witness's testimony doesn't. So long as the government introduces "evidence . . . sufficient to support a finding [by a preponderance] that the witness has personal knowledge of the matter"—the matter to which she testifies—Rule 602 is satisfied.[366]

In this respect, Rule 602's reliability requirement parallels Rule 702's. An expert need not supply evidence of every fact on which the probative value of the expert's testimony depends in order for the expert's testimony to satisfy Rule 702's reliability requirement. For example, in a criminal case where the accused claims that his intoxication left him unable to form the required intent,

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362. FED. R. EVID. 602 (emphasis added); *see also* MERRITT & SIMMONS, *supra* note 38, at 170 ("Rule 602 . . . does not limit witnesses to eyewitness accounts of the ultimate facts disputed at trial; remember that circumstantial evidence can also be relevant to a case.").

363. *See, e.g.*, United States v. Haden, No. 96-2950, 1997 WL 339268, at *2 (7th Cir. June 20, 1997) (explaining that the defendant was not justified in objecting to the witness's testimony on the ground that that the witness lacked personal knowledge as to whether "Haden wrote down the false information or forged their signatures," since the witness did not actually testify to this fact: "Instead, the witnesses testified only as to the circumstances surrounding the acts of Haden, and, from this circumstantial evidence, the jury inferred Haden's guilt."); Hamblin v. State, 597 S.W.2d 589, 593 (Ark. 1980) (explaining that the defendant was not justified in objecting to the witness's testimony on the ground that the witness "could not identify him or Miss Richardson and was not even asked to do so, and that Ostberg never identified the room to which he went to collect the additional rent," since the witness didn't actually testify to either of these facts: "His entire testimony purported to be the relation of facts that he knew, and there is no indication that he attempted to relate anything he did not know.").

364. *Cf.* Alexander & Alexander, *supra* note 290, at 277 (discussing similar case and arguing that conditional-relevancy requirements—of the kind sometimes thought to apply to physical and documentary evidence—do not apply to witness testimony).

365. *See* People v. Walker, No. B283945, 2018 WL 6039908, at *5–7 (Cal. Ct. App. Nov. 19, 2018).

366. FED. R. EVID. 602.

an expert could testify about how alcohol affects human mental processes without saying whether the accused actually consumed alcohol on the night of the charged crime, or how much alcohol the accused actually consumed.[367] Granted, the *relevance* of the expert's testimony will depend on whether the jury hears evidence that the accused consumed alcohol. The reliability of the expert's testimony will not, however.

None of this is to say that reliability requirements, and the concomitant distinction between reliability and relevancy, are necessary features of every imaginable evidence code. They aren't. At least in theory, it would be possible to construct a code that dispensed entirely with reliability requirements—to construct a code that didn't require "evidence sufficient to support a finding" as to *anything*.[368] In this sort of code, questions about personal knowledge, say, and authenticity would just be incorporated seamlessly into the relevancy determination. And, accordingly, questions about the probability associated with the evidentiary fact would be treated no differently than questions about the probabilities associated with other facts. This is not, however, the kind of code we have, as the Supreme Court pointedly recognized in *Daubert*.[369] The Federal Rules of Evidence impose an absolutely basic reliability requirement in relation to every kind of evidence, including physical and documentary evidence.[370] By its very nature, moreover, this reliability requirement is concerned only with the reliability of what the party *actually introduces*—with the evidentiary fact.[371] It is not concerned with other facts on which the probative value of the evidence depends.[372]

F. Reliability in the authentication setting

What exactly does it mean, though, to say that an item of physical or documentary evidence is "reliable"? What would it mean, for example, to say of the wallet in our blue wallet hypothetical that it is "reliable"? If we were to say this of a wallet outside the courtroom setting, we probably would mean something about the wallet's functionality. We might mean, for example, that the wallet is a reliable repository for money and personal identification

367. *See* Guzman v. Williams, No. 98-2172, 1999 WL 430059, at *8 (10th Cir. June 28, 1999) (recounting expert's testimony "as to the hypothetical effect of a combination of certain prescribed pain medication and alcohol that [the defendant] had purportedly consumed in large quantities over a period prior to the crimes in question"); Commonwealth. v. Towles, 106 A.3d 591, 606 (Pa. 2014) (concluding that trial court did not abuse its discretion to limiting expert's testimony to hypothetical questions about the possible effects of drug and alcohol consumption on the defendant's mental state); *see generally* Smith v. Arizona, 602 U.S. 779, 799 (2024) (approving use of hypothetical questions to experts).

368. *Cf.* Friedman, *supra* note 60, at 451–52 (suggesting that "strictly as a matter of rational evaluation of the evidence presented, the standard of 'evidence sufficient to support a finding' is too stringent").

369. Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 590, 597 (1993).

370. *See* ALLEN ET AL., *supra* note 39, at 167.

371. *Id.*

372. *Id.*

documents—that it doesn't have any holes. This obviously isn't the kind of reliability that concerns us, however. Moreover, the kind of reliability that concerns us—the kind of reliability that is the subject of Rules 602 and 702—does not seem as though it's the sort of quality that could be possessed by the wallet *qua* wallet. Reliability under Rules 602 and 702, like relevancy under Rule 401, is an attribute of facts, not things.[373] The wallet *qua* wallet is just a thing, not fact.

To explain: both where reliability is concerned and where relevancy is concerned, the basic unit of analysis is the so-called "evidentiary *fact*" or "evidentiary *proposition*."[374] Consider relevancy. When we decide whether evidence is relevant, we're asking what inferences the jury could draw from the evidence. Juries draw inferences from facts or premises or propositions, not from things.[375] To conduct the required relevancy analysis, then, we first must reconstitute the proffered evidence as an "evidentiary fact" or "evidentiary proposition." Evidence is relevant when this "evidentiary fact" has, in the words of Rule 401, "any tendency to make [the] fact [of consequence] more or less probable than it would be without the evidence."[376]

The evidentiary fact is the unit of analysis where reliability is concerned too. Naturally, when we address the question of reliability, we're not asking whether the evidentiary fact, if true, would justify any particular inference. That's what relevancy is about. Rather, when we ask about reliability, we're asking whether there's sufficient justification in the first place for thinking that the evidentiary fact might, in fact, *be* true. Here too, though, the object of the analysis still is, and must be, a fact, or a belief, or a proposition, not a thing. Just as the wallet *qua* wallet can't provide the starting point for an inference, neither can the wallet *qua* wallet be "true," or for that matter "false." "[T]ruth and falsehood are properties of beliefs and statements," as Bertrand Russell said.[377] They are not properties of physical objects. "[A] world of mere matter," said Russell, "would . . . contain no truth or falsehood."[378] So, again, both where reliability

373. *Id.* at 171, 650.

374. *See id.* at 119 (using term "evidentiary fact" and defining relevance in terms of the relationship between the evidentiary fact and a fact of consequence); James, *supra* note 185, at 696 ("[I]n every instance proof must be based upon a generalization connecting the evidentiary proposition with the proposition to be proved.").

375. MISH, *supra* note 278, at 596 (defining "infer" as "to derive as a conclusion from facts or premises"); SEVENTH CIR. CRIM. JURY INSTR. § 1.04 (1999) (explaining inferences by stating "[i]n our lives, we often look at one fact and conclude from it that another fact exists. In law we call this 'inference.'"); *cf.* Michael & Adler, *supra* note 111, at 1262 ("[P]roof is accomplished . . . by means of the assertion of propositions which stand in a definite formal relation to the conclusion.").

376. FED. R. EVID. 401(a).

377. BERTRAND RUSSELL, THE PROBLEMS OF PHILOSOPHY 121 (1959); *see also* Michael Glanzberg, *Truth*, THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Aug. 16, 2018), https://plato.stanford.edu/archives/fall2023/entries/truth/ [https://perma.cc/GCQ7-GGGA] (acknowledging that philosophers differ somewhat on the question of what kinds of things can be "bearers of truth": "Candidates typically include beliefs, propositions, sentences, and utterances.").

378. RUSSELL, *supra* note 377, at 121.

is concerned and where relevancy is concerned, the basic unit of analysis is the evidentiary fact.

Lawyers and judges—and scholars too for that matter—rarely pause to consider the relationship between evidence and the "evidentiary fact." But that's only because, where most evidence is concerned, the evidentiary fact just *is* "the offered item of evidence itself."[379] Witnesses usually testify in the form of factual statements, of course: "I saw Darwin leafing through a blue wallet," for example, or "Vine pointed to Darwin's photograph and identified him as the man who had robbed him."[380] Testimony like this doesn't require translation or reconstituting before it can provide the basis for an inference by the jury. Nor does it require translation or reconstituting before it can be assigned a truth value or a probability estimate. The testimony itself, then, is the object both of the relevancy analysis and the reliability analysis. The testimony itself is the evidentiary fact.

The same isn't true of physical and documentary evidence.[381] Granted, judges routinely instruct juries that the "exhibits admitted in evidence," like "the testimony of the witnesses," are part of the evidence in the case.[382] But exhibits don't usually make factual assertions. The blue wallet, for example, doesn't *say* anything. Nor does the gun that's admitted at trial as a possible murder weapon. It's true, of course, that the jury can make sensory observations of its own about an exhibit and then can formulate these observations as evidentiary facts. In our blue wallet hypothetical, for example, we can imagine a juror observing that "this wallet is made of blue fabric" or that "this wallet is roughly four inches in length and three inches across." Moreover, nothing would prevent the jury from drawing inferences from observations like these. But it's hard to see how a judge, before admitting the exhibit, could assess the "reliability" of observations like these, particularly since every physical object seemingly would lend itself to an infinite number of such observations.

The solution to this mystery is that where physical and documentary evidence is concerned, the reliability requirement applies not to the exhibit itself but, rather, to the testimonial evidence that contextualizes the exhibit. Whenever a party introduces physical or documentary evidence, the party also will introduce—usually through a sponsoring witness—evidence that

379. Schwartz, *supra* note 40, at 135.

380. *See* LAGNADO, *supra* note 53 ("The paradigm case of testimonial evidence is when a witness makes a specific claim about something they have observed 'first hand', such as a witness report that she saw the suspect loitering at the crime scene.").

381. MERRITT & SIMMONS, *supra* note 38, at 909 ("Trial witnesses introduce themselves to the jury and swear to tell the truth. Other types of evidence, however, cannot identify themselves or swear to truthfulness.").

382. SEVENTH CIR. CRIM. JURY INSTR., *supra* note 375, at § 1.02.

contextualizes the exhibit; evidence that says what the exhibit "is."[383] Granted, Rule 901 doesn't explicitly require the proponent of physical or documentary evidence to "claim" anything in particular about the evidence.[384] But it does, at least implicitly, require the proponent to claim *something*. It "requires the proponent of an exhibit to . . . state what the proponent *claims* the exhibit to be . . . ."[385] Usually, the proponent of the evidence will state what the proponent claims the exhibit to be through a sponsoring witness, whose testimony serves to "set [the] exhibit[] in context."[386] This testimony, naturally, will take the form of an evidentiary fact: "I found this wallet in the dumpster behind Darwin's apartment building," for example. This evidentiary fact is the subject of Rule 901's reliability requirement. The proponent of the exhibit must introduce evidence sufficient to support a finding that this evidentiary fact is true—that the exhibit is what the sponsoring witness says it is.[387]

So conceived, Rule 901's reliability requirement might seem, at first, as if it is redundant of other reliability requirements. After all, the testimony of the sponsoring witness, like the testimony of other witnesses, will *already* be subject to some reliability requirement or other. For example, a lay witness who testifies that he recognizes an object on the basis of its "appearance, contents, substance, internal patterns, or other distinctive characteristics" will be subject to Rule 602's personal knowledge requirement.[388] Likewise, an expert witness who provides an opinion about what the exhibit is, say, or who wrote it, will be subject to Rule 702's requirement that the opinion be reliable.[389]

But the existence of these other reliability requirements doesn't make Rule 901 redundant. Suppose, for example, that the prosecutor in the blue wallet case were to attempt to introduce the wallet through the victim, Vine, who testified only that the proffered wallet "might be" or "is consistent with" the wallet that was taken from him in the robbery. This testimony would satisfy the personal knowledge requirement, since it would be based on Vine's own prior visual observation of his own wallet.[390] Moreover, this testimony would probably be

383. *See* MERRITT & SIMMONS, *supra* note 38, at 909–10 (stating "[a] piece of [physical or documentary] evidence becomes relevant only when a party provides information linking it to the controversy" and that "authentication [evidence] places the evidence in proper context").

384. *See* FED. R. EVID. 901(a).

385. ALLEN ET AL., *supra* note 39, at 174 ("FRE 901(a) requires the proponent of an exhibit to do two things: (1) to state what the proponent *claims* the exhibit to be; and (2) to produce evidence 'sufficient to support a finding' that it is what the proponent claims.").

386. LEMPERT ET AL., *supra* note 38, at 1198 ("[N]either lawyers nor judges can question [ask questions, cross-examine, etc.] exhibits. This makes the testimony of witnesses who set exhibits in context critically important.").

387. ALLEN ET AL., *supra* note 39, at 174.

388. FED. R. EVID. 901(b)(4).

389. FED. R. EVID. 702(c)–(d).

390. A lay witness's testimony about whether something or someone might be the thing or person that the witness observed previously isn't inadmissible by virtue of the witness's uncertainty. *See* People v. Johnson, No. G046328, 2013 WL 2610192, at *3 (Cal. Ct. App. June 12, 2013) ("We begin with the principle that even weak, hesitant identifications are admissible—the weakness goes to the weight, not the admissibility

admissible in its own right if the government had *already* introduced the wallet through another witness. But Vine's testimony, despite satisfying Rule 602, wouldn't satisfy Rule 901. Rule 901, again, requires the proponent both to say what the exhibit "is," not just what it might be, and to introduce "evidence sufficient to support a finding that the item is what the proponent claims it is."[391] Vine can only say, and his testimony can only show, what the wallet might be, not what it is.

Or suppose that a firearms expert testifies that a particular firearm "might be," or "is consistent with," the firearm that fired the fatal bullet in a murder case. The expert's opinion might well satisfy the reliability requirement in Rule 702, despite the expert's inability to say positively whether this particular gun fired this particular bullet.[392] Moreover, if the firearm already had been admitted—if, say, a police officer already had identified the firearm as the one discovered in the accused's car after the murder—then the expert's testimony about the exhibit might well be helpful as well as reliable and so might be admissible. Still, the expert's testimony that the firearm might be the murder weapon would not, by itself, suffice to satisfy Rule 901's separate reliability requirement. Rule 901, again, requires the proponent both to say what the exhibit is and to introduce evidence sufficient to support a finding that the exhibit is what the proponent says it "is." Testimony about what the firearm *might be* would not satisfy this requirement.

On the descriptive interpretation, then, Rule 901 does impose an additional reliability requirement. Before an exhibit is admitted, the proponent is required both (1) to say what the exhibit "is," not just what the exhibit might be, and (2) to introduce evidence sufficient to support this "claim."[393]

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of the evidence."); *In re* Felipe O., 409 N.Y.S.2d 178, 181 (N.Y. Fam. Ct. 1978) (acknowledging that a witness's identification of persons may be "admissible despite their lack of certainty"); *see generally* 1 MOSTELLER, *supra* note 78, § 10, at 75 ("While the law demands firsthand observation, the law does not unrealistically insist on either precise perception or certainty in recalling the facts."); WIGMORE, *supra* note 93, vol. II, § 658, at 894 ("[T]he witness' observation *need not be positive or absolute certainty* . . . . [I]t suffices that he had an opportunity of personal observation and did get some impressions from this observation.").

391. FED. R. EVID. 901(a).

392. *See, e.g.*, United States v. Ford, 481 F.3d 215, 220 (3d Cir. 2007) ("Whether the shoes that Ford was wearing shortly after the June 12 robbery could have made the impressions found on the bank counter after the June 11 robbery was probative of Ford's participation in the robberies, and expert testimony that aids the jury to make such comparisons is admissible."); United States v. Allen, 390 F.3d 944, 949 (7th Cir. 2004) (holding that trial court had not abused its discretion by admitting expert's testimony "that, although not a definitive match, the shoes Allen was wearing at the time of his arrest could have made the tennis shoe impression the police found in the cement dust in the bank"); United States v. Medley, 312 F. Supp. 3d 493, 503 (D. Md. 2018) (permitting expert to testify that "the location of the defendant's cell phone was 'consistent with' the location of the crime scene at the time of the carjacking"); People v. Farnham, 47 P.3d 988, 1024–25 (Cal. 2002) (upholding admission of expert testimony that a knife found in the defendant's possession two weeks after the murder "could have been" the one used to break and cut the victim's screen door and telephone cords).

393. ALLEN ET AL., *supra* note 39, at 174.

G. Why it's no objection to the descriptive interpretation that the proponent gets to decide what to claim about the evidence

We're now in a position, finally, to understand why it's no objection to the descriptive interpretation of Rule 901 that the proponent of the physical or documentary evidence gets to decide for themselves how much or how little to prove. In short, the reason why it's no objection is that Rule 901, like Rules 602 and 702, imposes a *reliability* requirement. When courts apply reliability requirements, they just evaluate the reliability of whatever testimony the party actually chooses to elicit from the witness.[394] They don't construct or constitute the object of the reliability analysis for the party.[395] They don't *prescribe* the party's claim, in other words.

It's helpful, for the sake of comparison, to imagine how a "prescriptive" interpretation of Rule 602 on personal knowledge would operate. Suppose that a witness in our blue-wallet case was to testify that she had seen the accused, Darwin, leafing through a wallet that was not his own on the day after the robbery. But suppose she was unable to say whether the wallet was blue. The trial judge might, in this scenario, exclude the proffered testimony as insufficiently probative. In this event, though, the judge would simply exclude the witness's testimony on relevancy grounds. The judge would not do what a "prescriptive" interpretation of Rule 602 would require. The judge would not, that is: (1) use the relevancy requirement as a basis for reconstituting the witness's testimony prescriptively as, say, a claim that she really had seen Darwin leafing through a *blue* wallet; and then (2) exclude the evidence under Rule 602 after concluding that the witness's testimony didn't support a finding by a preponderance that she had seen Darwin leafing through a blue wallet.[396]

It's helpful, too, to imagine how a prescriptive interpretation of Rule 702's reliability requirement would operate. Suppose a criminal defendant were to assert as a defense that his mental disorder had robbed him of the capacity to form the required "knowingly" mental state for the offense. And suppose the defendant's expert witness was to testify merely that this mental disorder would have caused the defendant to suffer from "distortions in thinking" and "denial."[397] We can imagine the judge excluding this testimony on relevancy or "helpfulness" grounds, since "denial" isn't the same as ignorance.[398] But we can't imagine the judge doing what a prescriptive version of Rule 702's reliability requirement would do. We can't imagine the judge: (1) using the helpfulness

394. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 153–54 (1999).

395. *See id.*

396. *See* Alexander & Alexander, *supra* note 290, at 277 (arguing that conditional-relevancy requirements—of the kind sometimes thought to apply to physical and documentary evidence—do not apply to witness testimony).

397. United States v. Scholl, 166 F.3d 964, 970 (9th Cir. 1999).

398. *Id.* at 971.

requirement as a basis for reconstituting the expert's testimony prescriptively as, say, a claim that the mental disorder would've prevented the defendant from acting "knowingly"; and then (2) excluding the evidence as unreliable after concluding that the science wouldn't justify this reconstituted claim.

Under Rules 602 and 702, then, the proponent of the evidence gets to decide for himself or herself what to "claim." The judge doesn't use relevance (or helpfulness) as a basis for prescribing the proponent's "claim." Despite this, surely no one would say of either Rule 602 or Rule 702 that it "demands too little" of the evidence's proponent. The litigant who makes only modest claims—whose witnesses testify reliably about facts of only marginal relevance—runs the risk that the witness's testimony will be excluded on the relevance or helpfulness grounds.[399] Nothing would be gained by treating the demands of relevancy or helpfulness as a feature of the separate reliability requirement. Nothing would be gained, that is, using the demands of relevancy to reconstitute the "claim" that is the object of the reliability requirement.

Naturally, the same thing is true where authentication is concerned. Like other reliability requirements, the authentication requirement operates as a check on *over*-claiming, not as a check on under-claiming. If the proponent of physical or documentary evidence makes only modest claims about what the evidence is—if the proponent of documentary evidence claims, for example, merely that the proffered documents are "documents [provided by the opposing party] in answer to interrogatories under Rule 33(c)"[400]—they run the risk of the evidence being excluded under Rule 401 or 403. Nothing would be gained by using the demands of relevancy as a basis for reconstituting the proponent's "claim" prescriptively.

Nor should we be concerned that the proponent of documentary or physical evidence will evade the demands of Rule 901 by (1) making only modest claims up front, when he or she first offers the exhibit, and (2) later making additional, more expansive claims about what the exhibit "is," after the exhibit already has been admitted. Under the descriptive interpretation, the proponent of the exhibit is required to show that the exhibit is "what the proponent [actually] claims it is."[401] If "what the proponent claims it is" changes over the course of the trial—if the proponent makes additional claims about what the exhibit "is" after the exhibit has been admitted—then the proponent ought to be required to support those additional claims.[402]

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399. *See id.*

400. *See* Zenith Radio Corp. v. Matsushita Elec. Indus. Co., 505 F. Supp. 1190, 1223 (E.D. Pa. 1980), *aff'd in part, rev'd in part sub nom. In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *rev'd sub nom.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 106 S. Ct. 1348, 89 L. Ed. 2d 538 (1986).

401. FED. R. EVID. 901(a).

402. *See* MUELLER & KIRKPATRICK, *supra* note 44, at 332–34 (acknowledging that what a party "claims" something is can change after the item is admitted, as a consequence of which the party may be required to prove up whatever they claim the object is).

This, as it happens, is just what the courts have said.[403] Consider *United States v. Samet*, where defendants Mordecai Samet and Chaim Hollender were charged with conducting a racketeering enterprise that included multiple acts of mail fraud, wire fraud, and bank fraud.[404] At the defendants' trial, the government introduced "a substantial number of documents and materials used in connection with the fraudulent schemes and money laundering."[405] When the government first introduced the documents, it apparently claimed only that the documents were "evidence seized from the enterprise's offices."[406] After the documents were admitted, however, the government made additional claims about them.[407] Postal Inspector Patricia Thornton testified, for example, that the handwriting on several of the admitted documents was Hollender's.[408] After the defendants were convicted, they argued on appeal that Thornton's testimony was inadmissible under Rule 901.[409]

Though the Second Circuit ultimately concluded that Thornton's testimony was admissible, it rejected the government's claim that Rule 901 didn't apply in this setting.[410] The government argued that since "all of the documents at issue had already been admitted into evidence pursuant to Rule 901 either as business records or as documents seized from the enterprise's offices," Thornton's additional claims about the exhibits weren't subject to Rule 901.[411] The court disagreed.[412] It held that "Thornton's opinion testimony connecting Hollender to the handwriting in question had to comport with the requirements of Rule 901(b)(2)."[413] Naturally, the court didn't wrestle with the question of whether Rule 901 should be interpreted prescriptively or descriptively. But the court's holding better accords with the descriptive interpretation. Only if Rule 901 operates on a check on over-claiming, rather than as a check on under-claiming, does it make sense to apply the rule even when the party "claims" more than is strictly necessary to make the evidence logically relevant.

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403. *See, e.g.*, United States v. Scott, 270 F.3d 30, 49 (1st Cir. 2001) (holding that testimony identifying the author of an exhibit must satisfy Rule 901, even when "the documents that contained the handwriting had already been admitted into evidence"); United States v. Samet, 466 F.3d 251, 254 (2d Cir. 2006).

404. *Samet*, 466 F.3d at 252.

405. *Id.*

406. *Id.* at 253; *see also id.* at 255 (referencing the government's argument on appeal that Patricia Thornton's testimony about the authorship of the documents was not subject to Rule 901, since "all of the documents at issue had already been admitted into evidence pursuant to Rule 901 either as business records or as documents seized from the enterprise's offices").

407. *Id.* at 253.

408. *Id.*

409. *Id.* at 253–54.

410. *Id.* at 255.

411. *Id.*

412. *Id.* at 255–56.

413. *Id.* at 255.

H. How much would the descriptive approach change existing practice?

Just how much would adoption of the descriptive interpretation change existing practice? As I've said, courts do appear sometimes to apply the prescriptive, conditional-relevancy interpretation of Rule 901. In cases where the probative value of a document depends on the document's authorship, for example, courts sometimes require the proponent of the document to introduce evidence sufficient to support a finding as to authorship.[414] And in cases where the probative value of a photograph depends on whether it is an accurate depiction of whatever it depicts, the courts sometimes require the proponent of the photograph to introduce evidence sufficient to show that it is accurate.[415]At least in some cases, then, adoption of the descriptive interpretation seems likely to lead to different outcomes.

But the descriptive approach is less revisionist than it appears for four reasons.

First, sometimes the proponent of documentary evidence will be required to prove authorship or origin anyway as an element of a claim or defense. Sometimes, as in defamation cases, the authorship or origin of a document will be an element of a party's claim or defense.[416] Where it is, moreover, the party who raises the claim or defense often will be required to introduce evidence sufficient to support a finding by a preponderance as to the document's authorship or origin. Take, for example, *Kinda v. Carpenter*, where Margaret and Aaron Kinda sued their commercial landlord, Scott Carpenter, for defamation after he allegedly posted unfavorable reviews of their business on Yelp.[417] On appeal, the central issue was whether the Kindas had produced sufficient evidence that Carpenter was the author of the posts.[418] Though this can be viewed as an authentication issue—as a question about the admissibility of the Yelp posts—it is better viewed as a sufficiency issue, namely, did the Kindas satisfy their burden of proving that Carpenter performed the defamatory act?[419]

Second, the proponent of physical or documentary evidence frequently will be required to prove authorship or origin in order to overcome a hearsay objection. The hearsay exceptions in Rule 801(d)(2) for statements of a party-opponent, for example, require the proponent of the hearsay statement to prove—by a preponderance of the evidence and to the trial judge's

414. *See supra* text accompanying note 74.

415. *See supra* text accompanying notes 76–78.

416. *See* DOBBS ET AL., HORNBOOK ON TORTS § 37.3, at 938 (2d ed. 2016) (identifying the "defendant's publication of defamatory material" as an element of the tort of defamation).

417. Kinda v. Carpenter, 203 Cal. Rptr. 3d 183, 186 (Cal. Ct. App. 2016).

418. *Id.* at 193–202.

419. *Cf. id.* at 196–97 (discussing "the pitfalls that can result from 'us[ing] the in limine process to examine the sufficiency of the evidence'").

satisfaction[420]—that the statement actually was, say, "made by the party" or "made by the party's agent or employee."[421] In cases arising under this exception, then, a requirement that the party prove authorship or origin as a component of authentication would be redundant.[422] Take, for example, *O'Neal v. Esty*, a civil rights case where the defendant police officers claimed that the plaintiff had failed to prove that one of them was the author of an inculpatory statement.[423] Though this question can be framed as one of authentication, it is better viewed as a hearsay question, namely, did the plaintiff prove by a preponderance, and to the judge's satisfaction, that the inculpatory statement actually was "made by [a] party"?[424]

Third, the courts sometimes will be justified under Rule 901 in imputing to the exhibit's proponent a "claim" that the sponsoring witness themselves doesn't make explicitly.[425] Suppose, for example, that the defendant in a murder prosecution hopes to shift blame to another suspect, who ostensibly committed suicide shortly after the murder and left a suicide note accepting responsibility.[426] The defendant presumably would introduce the note through the police officer who found it. Even if the police officer explicitly "claimed" only that he found the suicide note in the suspect's residence, though, the court might be justified in ascribing to the defendant the additional "claim" that the suicide note was authored by the other suspect. After all, if the note itself includes an explicit claim of authorship—if the note bears the other suspect's

420. *See* 21A WRIGHT & GRAHAM, FED. PRAC. & PROC.: EVID. § 5053.3, at 89 (2d ed. 2005) ("[D]espite an occasional deviation, it is generally agreed that the judge determines the facts necessary to show that a statement is a straight, adoptive, authorized, or vicarious admission under Rule 801(d)(2)(A)–(D)."); United States v. Garza, 435 F.3d 73, 77 (1st Cir. 2006) ("Questions of admissibility are decided by the court, Fed.R.Evid. 104(a), using the preponderance of the evidence standard . . . . So long as there is a preponderance of evidence indicating that it was Garza's voice on the tapes, the transcripts could be treated as containing his admission.").

421. FED. R. EVID. 801(d)(2)(A), (D).

422. This appears to be true, for example, of the "admission" example in the Advisory Committee's Note to Rule 104(b): "if a letter purporting to be from Y is relied upon to establish an admission by him, it has no probative value unless Y wrote or authorized it." FED. R. EVID. 104 advisory committee's note to subdivision (b). In this setting, the term "admission" often, if not always, is used to refer to a "statement or assertion made by a party to a case and offered against that party." BLACK'S LAW DICTIONARY 57 (Bryan Garner ed., 12th ed. 2024).

423. O'Neal v. Esty, 637 F.2d 846, 851 (2d Cir. 1980).

424. *Id.* at 850 ("Although the defendants ground their argument on Rule 901(a), they could perhaps more plausibly base it on Rule 801(d)(2), which provides that a statement is not hearsay if it is 'offered against *a* party' and is '*his* own statement.'"); *see also* United States v. Vayner, 769 F.3d 125, 132 (2d Cir. 2014) (reasoning that even if Rule 901 did not require the government to prove that the proffered web page was created by the defendant, Rule 801(d)(2) did, since the web page was admitted by the trial judge as "a party admission").

425. *Cf. Vayner*, 769 F.3d at 131–32 (imputing to the government a claim that the proffered web page was authored by the defendant, despite the government's initial "argument that it offered the evidence simply as a web page that existed on the Internet at the time of trial, not as evidence of Zhyltsou's own statements").

426. *See, e.g.*, United States v. Hammers, 942 F.3d 1001, 1008 (10th Cir. 2019) (discussing the admissibility of a suicide note left by the defendant's accomplice, which said: "I Pam Keeling take full responsibility for everything at Grant School. No vendor nor Mr. Hammers had anything to do with what happened. I am truly sorry and pray for forgiveness.").

signature, for example—then it would be difficult to avoid the implication that the defendant tacitly is making, through the note, a "claim" about the note's authorship.[427]

This possibility of "imputing" claims to the proponent of the evidence is potentially of broader application, too. For example, the possibility of imputing claims to the proponent might explain why, in cases where the probative value of a photograph depends on whether it is accurate, courts sometimes require the proponent of a photograph to prove that the photograph or video is an accurate depiction of whatever it depicts.[428] In these cases, it wouldn't be crazy to treat the photograph itself as asserting, in effect, that "this is the way things were." This is especially true where the proponent of a photograph has ready access to a witness who observed what was depicted, or to a witness who operated the camera.[429] Of course, if the proponent were to disclaim any direct knowledge of whether the photograph was accurate—or if, as in *Walker*, the proponent's lack of any direct knowledge was apparent from the circumstances—this sort of imputation wouldn't be justified.[430]

This doesn't mean, of course, that the descriptive and prescriptive interpretations are co-extensive, or that they would produce the same results. In most cases, the trial judge wouldn't be remotely justified in ascribing to the exhibit's proponent a "claim" that encompasses every fact on which the probative value of the exhibit supposedly "depends." If the government in the blue wallet case were to introduce the wallet through the police officer who found it in the dumpster, there would be no reason for imputing to the government the claim that this was Vine's wallet, though the wallet's relevance "depends" on this fact. Nor, when the government introduced the photograph of Walker holding a Tec-9 handgun, would there be any basis for imputing to the government a "claim" that the Tec-9 was the gun used to kill Brown.

Fourth, and most importantly, physical and documentary evidence always is subject to exclusion under Rule 403 if the trial court concludes that "its probative value is substantially outweighed by a danger of . . . unfair prejudice, confusing the issues, [or] misleading the jury."[431] Proof that the item "is what the proponent claims" merely "satisf[ies] the requirement of authenticating or identifying an item of evidence."[432] It doesn't obviate application of the other federal evidence rules—of Rule 401 on logical relevancy, for instance, or of Rule 403 on pragmatic relevancy. The probative value of an item of physical or

427. *See* MOSTELLER ET AL., *supra* note 78, at 83 (emphasis added) ("In the everyday affairs of business and social life, it is customary simply to look at the writing itself for evidence as to its source. If the writing bears a signature purporting to be that of *X*, or recites that it was made by *X*, we assume, nothing to the contrary appearing, that it is exactly what it purports to be, the work of *X*.").

428. *See* MERRITT & SIMMONS, *supra* note 38, at 919.

429. *Id.*

430. People v. Walker, No. B283945, 2018 WL 6039908, at *2 (Cal. Ct. App. Nov. 19, 2018).

431. FED. R. EVID. 403.

432. FED. R. EVID. 901(a).

documentary evidence obviously will vary depending on the nature and strength of its connection to the case—on what the proponent has "claimed," and shown, about the evidence.[433] Even when the evidence has substantial probative value, moreover, this probative value sometimes will be outweighed by the danger that the evidence will mislead the jury. Wigmore, for one, thought that jurors had "a general mental tendency, when a corporal object is produced as proving something, to *assume, on sight of the object, all else that is implied in the case* about it."[434] Adoption of the descriptive interpretation of Rule 901 won't forestall arguments about whether the exhibit's probative value is outweighed by risks like this one. It just will ensure that these arguments don't get hijacked by unrealistic demands for sufficient proof of every fact on which the probative value of the exhibit supposedly "depends."[435]

CONCLUSION

Relevancy is not sufficiency.[436] The relevance of an item of evidence never depends on whether some fact is true by a preponderance of the evidence.[437] If relevancy doesn't ever depend on sufficiency, though, what are we to make of Rule 901, which unambiguously requires the proponents of physical and documentary evidence to introduce evidence sufficient to prove *something*?

The answer, as I've argued, is that Rule 901 isn't about relevancy. It's about reliability. The Federal Rules of Evidence include a number of foundational requirements designed to ensure that cases are resolved on the basis of "'the most reliable sources of information.'"[438] One of these is Rule 602 on personal knowledge, which requires the proponent of lay testimony to introduce evidence "sufficient to support a finding" that the testimony is based on what the witness perceived.[439] Another is the *Daubert* test, which requires the

433. *Id.*

434. 7 JOHN H. WIGMORE, EVIDENCE IN TRIALS AT COMMON LAW § 2129, at 704 (Chadbourn rev. 1978) ("[T]here is a general mental tendency, when a corporal object is produced as proving something, to *assume, on sight of the object, all else that is implied in the case* about it. The sight of it seems to prove all the rest. Thus, it is easy for a jury, when witnesses speak of a horse being stolen from Doe by Roe, to understand, when Doe is proved to have lost the horse, that it still remains to be proved that Roe took it; the missing element can clearly be kept separate as an additional requirement. But if the witness to the theft were to have a horse brought into the courtroom, and to point it out triumphantly, 'If you doubt me, there is the very horse!', this would go a great way to persuade the jury of the rest of his assertion and to ignore the weakness of his evidence of Roe's complicity. The sight of the horse, corroborating in the flesh, as it were, a part of the witness' testimony, tends to verify the remainder.").

435. FED. R. EVID. 104(b).

436. FED. R. EVID. 401 advisory committee's note; *see also* David S. Schwartz & Chelsey B. Metcalf, *Disfavored Treatment of Third-Party Guilt Evidence*, 2016 WIS. L. REV. 337, 352 (2016) ("One of the most basic tenets of modern evidence law is that relevance is not sufficiency."); State v. Irebaria, 519 P.2d 1246, 1248–49 (Haw. 1974) ("The concept of relevance . . . does not encompass standards of sufficiency.").

437. *See supra* Part I.

438. Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579, 592 (1993) (quoting FED. R. EVID. 602 advisory committee's note).

439. FED. R. EVID. 602.

proponent of expert testimony to show that the expert knows what they're talking about—that their testimony is rooted in scientific or technical "knowledge," not in mere surmise.[440] The authentication requirement is the counterpart of these rules. It requires the proponent of physical or documentary evidence to introduce evidence sufficient to support a finding that the exhibit really is "what the proponent claims it is."[441]

This insight—that Rule 901 is about reliability, not relevancy—dissolves the conundrum about Rule 901's scope. It answers the "what" question, in other words. Reliability requirements don't prescribe the content of a party's claims. They just require that the party's *actual* claims, whatever they happen to be, be reliable. If a witness testifies that she saw the accused with a gun on the day of the robbery, for example, Rule 602 doesn't require the witness's proponent to show that the gun was the very gun used in the robbery. It just requires the proponent to show that the witness has personal knowledge of the very "matter" to which she testified.[442]

So too Rule 901 on authentication. Rule 901(a) only requires the proponent of an exhibit to introduce evidence sufficient to support a finding that the exhibit is what the proponent actually "claims" it is.[443] Rule 901(b), in turn, tells the proponent how to satisfy this burden. If, for example, the party affirmatively claims through the sponsoring witness that a document was authored by a particular individual, then the party will have to comply with Rule 901(b)(2) or (3).[444] If they don't make this claim, though, they won't have to comply with these limitations. Rule 901 means what it says. The proponent of the exhibit must prove that the exhibit is what the proponent affirmatively "claims it is."[445] No more and no less.

440. *Daubert*, 509 U.S. at 590; FED. R. EVID. 702.
441. FED. R. EVID. 901(a).
442. FED. R. EVID. 602.
443. FED. R. EVID. 901(a).
444. FED. R. EVID. 901(b)(2), (3).
445. FED. R. EVID. 901(a).