THE SEDUCTIVE DOCTRINE OF CHANCES

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With increasing frequency, courts invoke the doctrine of chances to evade evidence law's ban on character evidence. When, for example, an arson defendant claims he did not torch his house, a court will allow the prosecution to prove that this is the fifth time the defendant's home has caught fire. When a murder defendant claims her infant child died of natural causes, a court will allow the prosecution to prove that six other children in her care died of similar "natural" causes. Courts say, with widespread scholarly support, that the doctrine of chances allows jurors to draw, from evidence of a defendant's repeated other acts, inferences based solely on objective probabilities and not the defendant's character. They are wrong.

The doctrine of chances is seductive. It promises something—noncharacter reasoning—that is alluring, but false. It purports to be a doctrine but really is just a label that provides a patina of legal respectability and mathematical precision where neither is deserved. And it has flourished because courts and commentators want it to be true. They embrace the doctrine of chances because it offers a plausible ground for judges to admit highly-probative character evidence despite the character-evidence rule. This Article explains why the doctrine of chances is not really a doctrine; examines why its promise of noncharacter reasoning is false; and offers some analytically sound ways to justify admission of some (but not all) of the highly-probative evidence courts now admit under the doctrine of chances.

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TABLE OF CONTENTS

INTRODUCTION 1917
I. THE DOCTRINE OF CHANCES IS NOT A DOCTRINE.....1922
A. *The Origins of the Term "Doctrine of Chances"*.....1923
B. *Factfinders Frequently Employ Rough and Instinctive Probabilistic Reasoning*.....1925
C. *Efforts to Distinguish the Doctrine of Chances*.....1926
1. The Muddled and Meaningless Requirements.....1926
a. Similarity.....1926
b. Frequency.....1931
2. Bavli's Objective-Chance Exception.....1935
3. Inconsistent Case Law.....1938
4. Summary.....1940
II. THE REASONING BEHIND THE DOCTRINE OF CHANCES.....1941
A. *The Doctrine of Chances Typically Requires a Propensity Inference*.....1941
B. *Situations Where Other-Acts Evidence Works Without a Propensity Inference*.....1945
1. Courts Erroneously Invoke the Doctrine of Chances Where the Other-Acts Evidence Is Independently Admissible for a Nonpropensity Purpose.....1945
2. The Doctrine of Chances and Conditional Relevancy.....1948
3. Summary.....1951
III. TWO UNDERLYING PROBLEMS AND ALTERNATIVE ANALYTICAL APPROACHES.....1952
A. *The Categorical Balancing Problem*.....1952
B. *There Is No Definition of Character*.....1957
CONCLUSION.....1960

INTRODUCTION

The prosecution faced a problem while trying Martha Woods for the murder of her seven-month-old foster son, Paul. Its forensic pathologist testified that, while he was seventy-five percent certain that the cyanotic episode that killed Paul was the result of his having been smothered, there was a twenty-five percent chance that Paul died from natural causes.[1] So, to shore up its case, the prosecution offered evidence that, over twenty-four years, nine children close to Woods had suffered at least twenty cyanotic episodes. Six of the other children had died.[2] Woods had never been charged with causing any of the other deaths.[3]

When Frederick Mardlin was prosecuted for torching his home and burning insured property,[4] he presented expert testimony that faulty electrical wiring was to blame.[5] So, to shore up its case, the prosecution offered evidence that, in the preceding twelve years, Mardlin had been victimized by four fires—two to his homes and two to vans he was driving—and insurance claims were filed each time.[6] Mardlin had never been charged with starting any of the other fires.

In 2016, Felix Vail went on trial for a fifty-four-year-old murder.[7] Back in 1962, the Calcasieu Parish coroner's office ruled that Vail's wife's death had been an accidental drowning.[8] But half a century later, a journalist's investigative report[9] revealed that in 1973, the woman with whom Vail had been living for several years had disappeared. And eleven years later, Vail's second wife had also disappeared. Neither was ever heard from again.[10] Calcasieu Parish authorities decided to reopen the 1962 case. This time, they decided Vail had committed murder. Vail's

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1 United States v. Woods, 484 F.2d 127, 130 (4th Cir. 1973). A child suffering a cyanotic episode turns blue, "principally around the lips, due to a lack of oxygen." *Id.* at 129.

2 *Id.* at 130–32.

3 *See* VINCENT DI MAIO & RON FRANSCELL, MORGUE: A LIFE IN DEATH 77 (2016).

4 People v. Mardlin, 790 N.W.2d 607, 611–13 (Mich. 2010).

5 *Id.* at 617.

6 *Id.* at 610–11. One of the vans was actually owned and insured by Mardlin's employer, but the prosecution argued that Mardlin benefitted in other ways from the van's destruction. *Id.*

7 State v. Vail, 236 So. 3d 644, 647–48 (La. Ct. App. 2017).

8 *Id.* at 650–51.

9 Jerry Mitchell, *Gone: One Wife Dead. Two Others Missing*, CLARION LEDGER (Dec. 30, 2016), https://www.clarionledger.com/story/news/local/felixvailgone/2016/12/29/felix-vail-gone-one-wife-dead-two-other-missing-jerry-mitchell/95895894 [https://perma.cc/WF3J-7N47]; *see also Gone*, USA TODAY, https://www.usatoday.com/pages/interactives/gone [https://perma.cc/LRC8-L4AT] (original version of *Gone*, supplemented with videos).

10 Mitchell, *supra* note 9.

defense, of course, was that the original investigators got it right.[11] So, to shore up its case, the prosecution offered evidence of the disappearance of the two other women in Vail's life.[12] Vail had never been charged in connection with the disappearance of either one.[13]

No one would dispute that, despite the lack of previous charges, the evidence the prosecution offered in each of these cases packed a powerful probative punch. In each case, however, the defense objected. Invoking the character-evidence rule, the defense argued that the evidence was probative only through a forbidden chain of propensity inferences.[14] The character-evidence rule prohibits evidence of a defendant's other acts if offered to prove the defendant's character so that the jurors may infer the defendant acted in accordance with that character and committed the charged crime.[15] Woods killed other children and so had a propensity to murder and therefore killed her foster son. Mardlin started other fires and so had a propensity to start fires and therefore committed the charged arson. Vail killed other women and so had a propensity to murder and therefore killed his first wife.

In each case, the prosecution responded that the evidence was being offered for a nonpropensity purpose. Invoking the doctrine of chances, the prosecution argued, or the court reasoned, that the evidence was offered for an objective, probabilistic inference.[16] What are the odds so many misfortunes could bedevil an innocent person? How could an innocent woman be so unfortunate as to have seven children die of cyanotic episodes, or a man to have two cars and three homes catch fire in twelve years? In his closing statement, Vail's prosecutor put it this way:

> How unlucky is this guy? . . . His first wife dies. His second wife-girlfriend disappears off the planet. His third wife disappears from the planet. He is either the most unlucky person born on the planet since Job or it is what it looks like—a killer who learned from his mistakes.[17]

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11 *Id.*

12 *Vail*, 150 So. 3d at 578.

13 Mitchell, *supra* note 9.

14 United States v. Woods, 484 F.2d 127, 128, 133–34 (4th Cir. 1973); People v. Mardlin, 790 N.W.2d 607, 610–12 (Mich. 2010); *Vail*, 150 So. 3d at 578–80.

15 FED. R. EVID. 404(b)(1) precludes the admission of "[e]vidence of any other crime, wrong, or act" if offered "to prove a person's character in order to show that on a particular occasion the person acted in accordance with the character." Every state has a similar character-evidence rule, many of which are based on either the original or restyled version of the federal rule. *See* 1 EDWARD J. IMWINKELRIED & TAMARA R. LAVE, UNCHARGED MISCONDUCT EVIDENCE app. I, Westlaw (database updated Dec. 2025).

16 *Woods*, 484 F.2d at 132–35; *Mardlin*, 790 N.W.2d at 610–13; *Vail*, 150 So. 3d at 580, 585–90.

17 Mitchell, *supra* note 9.

In each case, the prosecution's argument prevailed, and the appellate courts affirmed, invoking the doctrine of chances.[18] The *Mardlin* court explained that the doctrine of chances does not involve an impermissible character inference. Instead,

> the doctrine describes a logical link, based on objective probabilities, between evidence of past acts or incidents that may be connected with a defendant and proper, noncharacter inferences that may be drawn from these events on the basis of their frequency. If a type of event linked to the defendant occurs with unusual frequency, evidence of the occurrences may be probative . . . because it is objectively improbable that such events occur so often in relation to the same person due to mere happenstance.[19]

In each case, the court was wrong. The other-acts evidence was probative only through a propensity inference.[20] But confronted with the undeniable probative value of the other-acts evidence, the courts fell prey to the seductive charm of the doctrine of chances, with its alluring promise of objective, noncharacter reasoning. And it is not just the courts who have been seduced. At the beginning of the twentieth century, Wigmore first proposed the "doctrine of chances" as a viable nonpropensity use of other-acts evidence.[21] In the latter part of the century, Edward Imwinkelried began championing the doctrine. In a

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18 *See Woods*, 484 F.2d at 135; *Mardlin*, 790 N.W.2d at 612–13; *Vail*, 150 So. 3d at 583–90. The *Woods* court did not use the term "doctrine of chances," but employed its probabilistic reasoning, and *Woods* is often cited by courts and commentators as an important "doctrine of chances" case. *See, e.g.*, People v. Spector, 128 Cal. Rptr. 3d 31, 65 (Cal. Ct. App. 2011) (calling *Woods* a "classic modern example" of the doctrine of chances theory); Edward J. Imwinkelried, *The Use of Evidence of an Accused's Uncharged Misconduct to Prove Mens Rea: The Doctrines Which Threaten to Engulf the Character Evidence Prohibition*, 51 OHIO ST. L.J. 575, 586 (1990) (referring to *Woods* as the "paradigmatic" doctrine of chances case).

19 *Mardlin*, 790 N.W.2d at 612–13.

20 *See infra* Section II.A.

21 1 JOHN HENRY WIGMORE, A TREATISE ON THE SYSTEM OF EVIDENCE IN TRIALS AT COMMON LAW § 302, at 394 (1904).

series of articles[22] and his influential treatise,[23] Imwinkelried became its leading advocate.[24] Many of the foremost evidence treatises, including the New Wigmore,[25] McCormick on Evidence,[26] Mueller and Kirkpatrick's Federal Evidence,[27] and Graham and Blinka's Federal Practice and Procedure evidence volume[28] endorse the doctrine of chances.[29] So do

22 Edward J. Imwinkelried, *Admitting Evidence of an Accused's Uncharged Misconduct Under the Doctrine of Objective Chances: Before a Judge May Consider Evidence of an Uncharged Incident to Decide Whether There Has Been a Suspicious Coincidence, Must the Accused Claim That the Incident Was an Accident?*, 99 DENV. L. REV. 1 (2021) [hereinafter Imwinkelried, *Admitting Evidence*]; Edward J. Imwinkelried, *A Brief Essay Defending the Doctrine of Objective Chances as a Valid Theory for Introducing Evidence of an Accused's Uncharged Misconduct*, 50 N. MEX. L. REV. 1 (2020) [hereinafter Imwinkelried, *A Brief Essay*]; Edward J. Imwinkelried, *Criminal Minds: The Need to Refine the Application of the Doctrine of Objective Chances as a Justification for Introducing Uncharged Misconduct Evidence to Prove Intent*, 45 HOFSTRA L. REV. 851 (2017) [hereinafter Imwinkelried, *Criminal Minds*]; Edward J. Imwinkelried, *An Evidentiary Paradox: Defending the Character Evidence Prohibition by Upholding a Non-Character Theory of Logical Relevance, The Doctrine of Chances*, 40 U. RICH. L. REV. 419 (2006) [hereinafter Imwinkelried, *Evidentiary Paradox*]; Edward J. Imwinkelried, *The Dispute over the Doctrine of Chances*, 7 CRIM. JUST. 16 (1992) [hereinafter Imwinkelried, *Dispute*]; Imwinkelried, *supra* note 18, at 588.

23 1 IMWINKELRIED & LAVE, *supra* note 15, §§ 2:21, 4:1, 4:3, 5:28, 5:6, 5:7.

24 A January 19, 2026, Westlaw search of the "all states/all federal cases" databases with the terms "'doctrine of chances' /p Imwinkelried & DA(aft 12/31/1989)" yielded 90 cases.

25 DAVID P. LEONARD, THE NEW WIGMORE: EVIDENCE OF OTHER MISCONDUCT AND SIMILAR EVENTS §§ 6.3.1.b, 7.3.2, 9.4.2.b, 13.2 (2d ed. 2019).

26 1 MCCORMICK ON EVIDENCE § 190.4 (Robert P. Mosteller et al. eds., 9th ed. 2025).

27 1 CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, FEDERAL EVIDENCE § 4:34 (4th ed.), Westlaw (database updated July 2025).

28 22B KENNETH W. GRAHAM, JR. & DANIEL D. BLINKA, FEDERAL PRACTICE AND PROCEDURE § 5247.1 (2d ed.), Westlaw (database updated Apr. 2026).

29 So do many treatises dedicated to state evidence law. *E.g.*, RONALD L. CARLSON & MICHAEL SCOTT CARLSON, 1 CARLSON ON EVIDENCE: COMPARING GEORGIA AND FEDERAL RULES O.C.G.A. § 24-4-404(b), LexisNexis (database updated 2026); LAWRENCE A. DUBIN, AJ STEPHANI & GLEN WEISSENBERGER, 1 MICHIGAN EVIDENCE COURTROOM MANUAL § 404.01, LexisNexis (database updated 2026); SHEILA K. HYATT, 23 COLO. PRACTICE, EVIDENCE LAW § 404(b):14.5, Westlaw (database updated Dec. 2025); PHILLIP D. HARDBERGER, 1 TEXAS COURTROOM EVIDENCE § 18.04[c][i], LexisNexis (database updated 2025).

numerous law review authors.[30] The Reporter to the Advisory Committee on Evidence Rules[31] and the Committee itself seem to endorse it as well.[32]

The doctrine has its critics. A handful of commentators[33] and a very few courts have dissented.[34] But their arguments, cogent as they are, have largely fallen on deaf ears. Courts cite the doctrine of chances far more frequently now than ever before.[35] Reflecting this trend, one major

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30 *See, e.g.*, Mark Cammack, *Using the Doctrine of Chances to Prove Actus Reus in Child Abuse and Acquaintance Rape:* People v. Ewoldt *Reconsidered*, 29 U.C. DAVIS L. REV. 355, 376–406 (1996); David P. Leonard, *The Legacy of* Old Chief *and the Definition of Relevant Evidence: Implications for Uncharged Misconduct Evidence*, 36 SW. U. L. REV. 819, 847 (2008); John Melvin, *What Are the Chances? A Response to Professor Milich's View of 404(b)*, 9 J. MARSHALL L.J. 40, 73–89 (2015–16); Len Niehoff & Shannon Hickey, *A Law at War with Itself: Character Evidence and the Doctrine of Chances*, 50 NO. 4 LITIG. 14, 16-19 (2024); Basyle J. Tchividjian, *Predators and Propensity: The Proper Approach for Determining the Admissibility of Prior Bad Acts Evidence in Child Sexual Abuse Prosecutions*, 39 AM. J. CRIM. L. 327, 360 (2012); C.J. Williams & Dasha Ternavska, *A Series of Unfortunate Events: The Admissibility of "Other Fires" Evidence in Arson Cases*, 48 CONN. L. REV. 685, 708–15 (2016); Michelle Byers, *What Are the Odds: Applying the Doctrine of Chances to Domestic-Violence Prosecutions in Massachusetts*, 46 NEW ENG. L. REV. 551, 578 (2012).

31 *See* Daniel J. Capra & Liesa L. Richter, *Character Assassination: Amending Federal Rule of Evidence 404(b) to Protect Criminal Defendants*, 118 COLUM. L. REV. 769, 807–08 (2018).

32 In connection with its 2019 proposal to amend FED. R. EVID. 404(b), the Committee wrote:

> [A]n attempt to require the court to establish the probative value of a bad act by a chain of inferences that did not involve propensity would add substantial complexity, while ignoring that in some cases, a bad act is legitimately offered for a proper purpose but is nonetheless bound up with a propensity inference—an example would be use of the well-known 'doctrine of chances' to prove the unlikelihood that two unusual acts could have both been accidental.

Memorandum from Hon. Debra A. Livingston, Chair, Advisory Comm. on Evidence Rules, to Hon. David G. Campbell, Chair, Comm. on Rules of Prac. & Proc. 0085 (May 30, 2019), https://www.uscourts.gov/forms-rules/records-rules-committees/packages-submitted/us-supreme-court-rules-package-2019 [https://perma.cc/T9D2-8B9C].

33 Frederic Bloom, *Character Flaws*, 89 U. COLO. L. REV. 1101, 1141–45 (2018); Andrew J. Morris, *Federal Rule of Evidence 404(b): The Fictitious Ban on Character Reasoning from Other Crime Evidence*, 17 REV. LITIG. 181, 199–205 (1998); Paul F. Rothstein, *Intellectual Coherence in an Evidence Code*, 28 LOY. L.A. L. REV. 1259, 1262–63 (1995) [hereinafter Rothstein, *Intellectual Coherence*]; Paul F. Rothstein, Comment, *The Doctrine of Chances, Brides of the Bath and a Reply to Sean Sullivan*, 14 L., PROBABILITY & RISK 51 (2015) [hereinafter Rothstein, *Comment*]; Sean P. Sullivan, *Probative Inference from Phenomenal Coincidence: Demystifying the Doctrine of Chances*, 14 L., PROBABILITY & RISK 27 (2015).

34 *See* State v. Jackson, 498 P.3d 788, 800 (Or. 2021); State v. Vuley, 70 A.3d 940, 951 n.8 (Vt. 2013). The Utah Supreme Court has forsworn use of the doctrine of chances, but only because "it has been confusing and difficult to apply" in some cases. State v. Green, 532 P.3d 930, 944 (Utah 2023). The court maintained, however, that the doctrine was "analytically helpful" in others. *Id.*

35 *See* People v. VanderVliet, 508 N.W.2d 114, 128 n.35 (Mich. 1993) ("widely accepted"); State v. McManus, 594 N.W.2d 623, 631 (Neb. 1999) ("majority of courts have adopted the doctrine without question"); Melvin, *supra* note 30, at 86 ("widespread acceptance"). A Westlaw search of "all states/all federal cases" databases with the terms "'doctrine of chances' /p Wigmore

evidence treatise recently added a section on the doctrine of chances.[36] The doctrine's seductive power seems only to have grown.

Successful seductions often involve three components,[37] all of which pertain to the doctrine of chances. First, seductions are often successful when seducers are good at pretending to be what they are not. Second, successful seductions often depend on promises that sound convincing, even when they are false. Finally, seductions often succeed because the seducer's target, at some level, wants to be seduced. As Part I demonstrates, the doctrine of chances pretends to be what it is not. Rather than a doctrine, it is simply a label used to provide a patina of legal respectability and mathematical precision where neither is deserved. Part II then demonstrates that the doctrine of chances' promise of nonpropensity reasoning sounds convincing but largely turns out to be false. One reason it sounds convincing is that it does contain a small kernel of truth. Part II goes on to explore a limited context in which the doctrine of chances may sometimes give rise to an objective, nonpropensity inference. Finally, Part III briefly offers an underlying explanation for why, at some level, courts and commentators want to be seduced. It then offers some analytically sound ways to justify admission of some—but not all—of the evidence courts have admitted under the doctrine of chances.

I. THE DOCTRINE OF CHANCES IS NOT A DOCTRINE

A close examination shows that the doctrine of chances is not what it pretends to be—a doctrine. A legal doctrine "identifies 'common threads' arising in recurring problems and crystalizes those patterns in tests to apply to future controversies."[38] In evidence law, the doctrine of chances does no such thing. It is just an appealing turn of phrase that lacks content.

Imwinkelried" produced 7 cases before 1950, 9 from 1950 through 1974, 56 from 1975 through 1999, and 129 from 2000 through 2025.

36 22B GRAHAM & BLINKA, *supra* note 28, § 5247.1. Earlier editions of this treatise lacked a section on the doctrine of chances. *See* 22B CHARLES ALAN WRIGHT & KENNETH W. GRAHAM, JR., FEDERAL PRACTICE AND PROCEDURE §§ 5239–5250 (2014).

37 For a scholarly examination of seductions, see CLEMENT KNOX, SEDUCTION: A HISTORY FROM THE ENLIGHTENMENT TO THE PRESENT (2020).

38 Allison Orr Larsen, *Becoming a Doctrine*, 76 FLA. L. REV. 1, 15 (2024) (quoting West Virginia v. Env't Prot. Agency, 597 U.S. 697, 724 (2022)).

A. *The Origins of the Term "Doctrine of Chances"*

The term "doctrine of chances" dates to the 1718 publication of the first textbook on probability theory, *The Doctrine of Chances: Or, A Method of Calculating the Probability of Events in Play*.[39] In a series of increasingly complicated problems, its author, French mathematician Abraham de Moivre, demonstrated how to calculate the probability of an event occurring under precisely stipulated conditions. What are the odds, for example, that in eight throws of a die someone would throw two sixes?[40] Wigmore imported the term to evidence law[41] to justify the admission of other-acts evidence and circumvent the character-evidence rule.[42] In an oft-quoted passage, he argued the doctrine of chances allows a jury to infer a defendant's mens rea without considering the defendant's character:

> The argument here is purely from the point of view of the doctrine of chances,—the instinctive recognition of that logical process which eliminates the element of innocent intent by multiplying instances of the same result until it is perceived that this element cannot explain them all. Without formulating any accurate test, and without attempting by numerous instances to secure absolute certainty of inference, the mind applies this rough and instinctive process of reasoning, namely, that an unusual and abnormal element might

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39 ABRAHAM DE MOIVRE, THE DOCTRINE OF CHANCES: OR, A METHOD OF CALCULATING THE PROBABILITY OF EVENTS IN PLAY (1718); *see also* Ivo Schneider, *Abraham de Moivre, The Doctrine of Chances (1718, 1738, 1756), in* LANDMARK WRITINGS IN WESTERN MATHEMATICS 1640-1940 105 (Ivor Grattan-Guinness ed., 2005) ("The *Doctrine of chances* is the first textbook for the calculus of probabilities.").

40 The answer is 663,991 out of 1,679,616, or about two chances out of five. *See* DE MOIVRE, *supra* note 39, at 9.

41 The term had previously been used in jury instructions explaining the meaning of beyond a reasonable doubt. *See, e.g.*, Hopt v. People, 120 U.S. 430, 440 (1887); Mickle v. State, 27 Ala. 20, 22 (1855). In a few instances, it appeared in an evidentiary context, *see, e.g.*, Hale v. Hale, 33 N.E. 858, 867 (Ill. 1893), but seems only once to have been urged upon the court for the inferential process now associated with the doctrine. And in that case, the court was not impressed. Denver & Rio Grande Ry. Co. v. Glasscott, 4 Colo. 270, 272 (1878) (affirming exclusion of evidence after noting that counsel "treats us with a metaphysical disquisition on the 'Doctrine of Chances' and the 'Theory of Probabilities' . . . for the purpose of demonstrating the remoteness of the possibility that the receipts of the two conductors would be the same").

42 1 WIGMORE, *supra* note 21, § 302, at 394. A few cases that preceded Wigmore's suggestion employed doctrine-of-chances reasoning without using the term. The most famous was a case in New South Wales. *R. v Makin* [1893] 14 LR (NSW) 1 (Austl.). Mr. and Mrs. Makin were tried for murdering an infant for whom they were being paid to care. *Id.* at 1. The baby's corpse was found in their backyard. *Id.* The court affirmed the admissibility of evidence that the bodies of twelve other babies whom they had taken in were found buried in the backyards of houses in which they had lived. *Id.*

> perhaps be present in one instance, but the oftener similar instances occur with similar results, the less likely is the abnormal element likely to be the true explanation of them.[43]

Wigmore then offered an example. While hunting, A is shot by a bullet fired from B's gun. Perhaps the shooting was an accident. But if a bullet from B's gun had twice before whistled by A's head, "the immediate inference . . . is that B shot at A deliberately." The chance of three inadvertent similar incidents is remote. "[T]he recurrence of a similar result . . . tends (increasingly with each instance) to negative accident or inadvertence or self-defence or good faith or other innocent mental state . . . ."[44]

Wigmore contended only that the doctrine of chances could be used to prove a defendant's state of mind,[45] and courts invoked the doctrine of chances sporadically until the 1970s.[46] But since then, courts have relied on the doctrine of chances with accelerating frequency and not just to prove mens rea. They often now sanction its use to prove the existence of the actus reus,[47] and prosecutors[48] invoke the doctrine in a wide array of cases.[49] A careful review of Wigmore's argument, however, reveals that his doctrine of chances is very different from de Moivre's doctrine of chances. De Moivre's doctrine requires carefully stipulated conditions

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43 1 WIGMORE, *supra* note 21, § 302, at 390. Compare Wigmore's language to de Moivre's:

> We may imagine Chance and Design to be as it were in Competition with each other, for the production of some sorts of Events, and may calculate what Probability there is, that those Events should be rather owing to one than to the other. . . . [W]e may learn, in many Cases, how to distinguish the Events which are the effect of Chance, from those which are produc'd by Design[.]

DE MOIVRE, *supra* note 39, at v–vi.

44 1 WIGMORE, *supra* note 21, § 302, at 390–91.

45 The quoted section is titled "Theory of evidencing Intent," and most of the section refers to establishing a defendant's mental state. *Id.* § 302, at 390–95. But Wigmore slipped into the last quoted sentence above a reference to self-defense, where the defendant's mental state is rarely at issue. *See infra* Section III.A.

46 *See supra* note 30; Imwinkelried, *Admitting Evidence*, *supra* note 22, at 8.

47 *See infra* Section III.A.

48 Occasionally, the doctrine of chances is invoked in civil cases. *E.g.*, Westfield Ins. Co. v. Harris, 134 F.3d 608, 615 (4th Cir. 1998).

49 *E.g.*, People v. Mardlin, 790 N.W.2d 607, 614–16 (Mich. 2010) (arson); Morgan v. State, 692 S.W.2d 877, 881 (Tex. Crim. App. 1985) (child sexual abuse); Farmer v. State, 405 P.3d 114, 121–22 (Nev. 2017) (sexual offenses); People v. Everett, 250 P.3d 649, 656–57 (Colo. App. 2010) (sexual assault); State v. Richins, 496 F.3d 158 (Utah 2021) (public lewdness), *abrogated by* State v. Green, 532 P.3d 930 (Utah 2023); De La Paz v. State, 279 S.W.3d 336, 347–48 (Tex. Crim. App. 2009) (making false police reports); State v. Stager, 406 S.E.2d 876, 891 (N.C. 1991) (murder); Duntsch v. State, 568 S.W.3d 193, 222 (Tex. App. 2018) (assault); United States v. Queen, 132 F.3d 991, 996 (4th Cir. 1997) (witness tampering).

and employs mathematical formulae to calculate the odds. For instance, he calculated the chances of throwing two sixes in eight throws by using the following formula: $[(a + b)^n - b^n - nab^{n-1}] \div [(a + b)^n]$.[50] In contrast, Wigmore eschews "formulating any accurate test" and relies on a "rough and instinctive process of reasoning."[51] This begs the question: How does the probabilistic reasoning of the doctrine of chances differ from the kind of "rough and instinctive" probabilistic reasoning factfinders otherwise commonly employ?

B. *Factfinders Frequently Employ Rough and Instinctive Probabilistic Reasoning*

Informal probabilistic reasoning is a staple of trials. Juries constantly engage in such reasoning. When the prosecution proves the defendant hated the victim to rebut the defendant's claim that the shooting was accidental, jurors use informal probabilistic reasoning. What are the odds that someone who hated the victim only shot the victim accidentally? Motive evidence typically aims to trigger such a response: It is more likely that someone with a motive committed the charged crime than someone who lacks a motive. When the prosecution proves that the driver had a .21 blood-alcohol level to establish that the driver recklessly caused a pedestrian's death, jurors likewise use informal probabilistic reasoning. What are the odds that this was a reckless auto-pedestrian killing and not just a tragic accident that would have occurred even if the driver had been stone-cold sober? Indeed, a substantial literature has developed around describing jurors' factfinding in terms of probabilistic reasoning.[52] Unless it is possible to meaningfully define what separates doctrine-of-chances probabilistic reasoning from other types of probabilistic reasoning in which jurors typically engage, we cannot say that there really is a doctrine of chances.

One obvious answer is that most informal probabilistic reasoning that jurors use concerns people generally. How generally does hatred affect a person's actions? How generally does intoxication affect a person's driving? In contrast, doctrine-of-chances reasoning focuses on a particular person. How likely is it that so many unfortunate events would

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50 DE MOIVRE, *supra* note 39, at 9.

51 WIGMORE, *supra* note 21, § 302, at 390.

52 *E.g.*, Bernard Robertson & G.A. Vignaux, *Probability—The Logic of the Law*, 13 OXFORD J. LEG. STUD. 457 (1993); Richard O. Lempert, *Modeling Relevance*, 75 MICH L. REV. 1021 (1977); Michael O. Finkelstein & William B. Fairley, *A Bayesian Approach to Identification Evidence*, 83 HARV. L. REV. 489 (1970).

befall this particular defendant? But forbidden character evidence likewise focuses on a particular person. How likely is it that a particular defendant who has committed several other violent acts acted violently on the occasion in question? Some standard must exist by which we can distinguish doctrine-of-chances evidence from ordinary character evidence. Efforts by commentators and courts to articulate such a standard have failed.

C. *Efforts to Distinguish the Doctrine of Chances*

1. The Muddled and Meaningless Requirements

Courts and commentators that endorse the doctrine of chances often insist that two primary requirements must be met before other-acts evidence can be admitted under the doctrine. In seeking to "clarify the application of the doctrine of chances,"[53] the Utah Supreme Court proclaimed the doctrine requires a showing of "similarity and frequency."[54] Imwinkelried concurs: The other acts must be similar to the charged crime and must have occurred "more frequently" than would be expected of a typical person.[55] As a means of defining the doctrine of chances as a distinct basis for admitting other-acts evidence, however, these requirements turn out to be worthless.

a. Similarity

The language used by various courts and commentators to describe the similarity requirement hints at its elasticity. "No rigid rules dictate what constitutes sufficient similarities."[56] Imwinkelried has himself

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53 State v. Argueta, 469 P.3d 938, 946 (Utah 2020). Three years later, the Utah Supreme Court renounced use of the doctrine of chances, stating that it had "proven to be more confusing than helpful." State v. Green, 532 P.3d 930, 944 (Utah 2023).

54 *Argueta*, 469 P.3d at 947. *Argueta* added two other requirements: materiality and independence. *Id.* at 946. In this context, materiality means that there "must be [a] bona fide dispute" about the issue to which the evidence is directed. State v. Verde, 296 P.3d 673, 686 (Utah 2012), *abrogated by* State v. Green, 532 P.3d 930 (Utah 2023). But this requirement aims to alleviate the danger of unfair prejudice by precluding its use when there is no real need for the evidence. The independence requirement addresses the probative value of the evidence that the other acts actually occurred. It requires only that if the prosecution produces witnesses to testify to the defendant's previous acts, the witnesses must not have colluded with one another and concocted their stories. *Verde*, 296 P.3d at 687; *see* LEONARD, *supra* note 25, § 9.4.2.b. This has no application to most doctrine-of-chances cases.

55 Imwinkelried, *The Use of Evidence*, *supra* note 18, at 589–90.

56 Duntsch v. State, 568 S.W.3d 193, 222 (Tex. App. 2018); *see* Gregg Matthew Jacobson, *The Usefulness of Rule 404(b) and the Doctrine of Chances in Civil Construction Cases*, A.B.A. (Sep. 7,

described the requirement in various ways: the other acts and the charged offense must be "basically similar,"[57] "fundamentally similar,"[58] or "roughly similar,"[59] or fall in the "same general category."[60] Wigmore wrote of "similar instances . . . with similar results."[61] Some courts use one or more of these terms.[62] Others offer alternative formulations,[63] construe the doctrine of chances as merely requiring a lesser degree of similarity than is required for establishing identity through modus operandi,[64] or simply balk at offering any definition.[65]

Compounding the imprecise definitional language is the failure to agree about what exactly needs to be similar. Must the other acts and the charged offense constitute the same or similar crime or produce a similar result? Involve similar states of mind? Similar means of commission? The case law provides no good answer. Occasionally, courts cite the lack of similarity in the means by which the other acts and charged offenses were committed as a ground for excluding the evidence. More frequently, however, courts offer a list of manufactured similarities to justify their invocation of the doctrine. And other times, courts are utterly indifferent.

2017), https://www.americanbar.org/groups/construction_industry/publications/under_construction/2017/summer/usefulness-rule-404/Under Construction [https://perma.cc/B6PX-Z7HQ] ("Similarity between the act at issue and the prior act is *typically* required." (emphasis added)).

57 IMWINKELRIED & LAVE, *supra* note 15, § 4:3.

58 *Id.*

59 Imwinkelried, *The Use of Evidence*, *supra* note 18, at 589.

60 *Id.* at 590.

61 1 WIGMORE, *supra* note 21, § 302, at 390. Wigmore's illustration, however, involved three shots fired by B at A, the first two of which missed. The result of the third shot (death) clearly differed from the first two. The "result" Wigmore had in mind was really an act—the firing of the gun. *Id.*

62 *E.g.*, People v. Everett, 250 P.3d 649, 658 (Colo. App. 2010) (using "roughly similar"); Commonwealth v. Hicks, 156 A.3d 1114, 1136–37 (Pa. 2017) (same) (Saylor, C.J., concurring); Diffee v. State, 894 S.W.2d 564, 567–68 (Ark. 1995) (using "same general category"); People v. Jones, 311 P.3d 274, 281 (Colo. 2013) (Bender, C.J., concurring) (same); People v. Mardlin, 790 N.W.2d 607, 616–17 (Mich. 2010) (same).

63 *E.g.*, State v. Verde, 296 P.3d 673, 686–87 (Utah 2012) (using "some significant similarity" between the other acts and the charged offense "to suggest a decreased likelihood of coincidence").

64 *E.g.*, Commonwealth v. Bidwell, 195 A.3d 610, 624–27 (Pa. 2018); Morgan v. State, 692 S.W.2d 877, 881, 881 n.6 (Tex. Crim. App. 1985).

65 *E.g.*, State v. Skillicorn, 479 P.3d 254, 268 (Or. 2021) (stating that events must be similar because dissimilar other acts can have only negligible probative value under the doctrine of chances); State v. Vail, 150 So. 3d 576, 588 (La. Ct. App. 2014) (stating that similarity "varies with the issue for which it is offered" and the other acts "need not bear striking similarity to the offense charged if the theory of relevance does not itself center on similarity" (quoting *Mardlin*, 790 N.W.2d at 614–15)).

People v. Dryden[66] provides a rare example of a court that refused to apply the doctrine of chances because of insufficient similarity. The defendant was on trial for two counts of assault; his weapon was a large bamboo stick.[67] He claimed he acted in self-defense.[68] To rebut the self-defense claim, the prosecution offered evidence of two earlier assaults in which the defendant also claimed self-defense. The first assault was by means of strangulation; the second, by a cane.[69] Finding "no similarities in circumstance" between the charged and earlier assaults, the court held the evidence inadmissible.[70]

State v. Murillo[71] and *United States v. Henthorn*[72] offer examples of courts relying on manufactured similarities to justify their use of the doctrine of chances. In *Murillo*, the defendant was charged with murdering his wife. He claimed a gun had accidentally discharged as they were struggling.[73] The trial judge allowed the prosecution to adduce evidence that, two decades before, Murillo accidentally shot his first wife to death.[74] Affirming the use of the doctrine, the North Carolina Supreme Court cited eight similarities in the circumstances of the two deaths.[75] But the court padded its list through double counting. For example, the court listed the defendant's telling people the shooting was accidental and his telling people that he did not intend to shoot his wife as two similarities.[76] The court further inflated its list by including an inevitable fact: The defendant was with his wives when he shot them.[77]

Like Murillo, the defendant in *Henthorn*[78] was a twice-widowed husband. Henthorn's second wife died when she fell more than 100 feet off a remote cliff in a national park.[79] He stood to collect nearly $5 million from her pension and life insurance policies.[80] To prove that his wife's fall

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66 275 Cal. Rptr. 3d 267, 276–81 (Cal. Ct. App. 2021).

67 *Id.* at 273–74.

68 *Id.* at 273–75.

69 *Id.* at 278.

70 *Id.* at 279–80.

71 509 S.E.2d 752, 764–66 (N.C. 1998).

72 864 F.3d 1241, 1249–51 (10th Cir. 2017).

73 *Murillo*, 509 S.E.2d at 758.

74 *Id.* at 758, 774.

75 *Id.* at 763–64.

76 *Id.* at 764.

77 *Id.* The remaining similarities were likewise unremarkable. Both wives died of one gunshot wound; a firearm was found nearby; the defendant sought help; both deaths came from a wound to a vital organ; and both shootings occurred where the defendant and his wife lived. *Id.*

78 United States v. Henthorn, 864 F.3d 1241, 1245 (10th Cir. 2017).

79 *Id.*

80 *Id.* at 1247 n.5.

was no accident, the prosecution offered evidence about Henthorn's first wife's death. Seventeen years before, she died when she was pinned under their car while they were changing a tire on the side of a remote and heavily-forested road.[81] Henthorn collected $600,000 in life insurance proceeds; he was never prosecuted for her death.[82] The trial court admitted the evidence, and the Tenth Circuit approved. Like the *Murillo* court, it relied heavily on a manufactured list of similarities. For example, it noted that after each death, Henthorn quickly had his wife's body cremated over family objections and spread their ashes on the same mountain.[83] Although this sounds like an ominous similarity, there was no question about the immediate physical cause of either wife's death, and the court never explained why this similarity held any significance.[84]

Vail—where the defendant was on trial for staging an accidental drowning of his wife more than fifty years before—illustrates utter indifference to similarities between the way in which the other acts and the charged crime were committed. The court there admitted evidence that two other women with whom the defendant had been intimately associated had disappeared, even though the prosecution had absolutely no proof as to how the defendant accomplished this.[85] The court explained that the two other deaths need not bear a "striking similarity" to the charged murder; their "relevance does not center on similarity of the act but on the results."[86]

Sometimes courts invoke the doctrine of chances even when the charged and prior crimes or results are different; sometimes they refuse to invoke the doctrine because of the differences. Famed music producer Phil Spector[87] was tried for fatally shooting a female guest at his home late

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81 *Id.* at 1249.

82 *Id.* at 1247–50.

83 *Id.* at 1251.

84 Here, too, the remaining similarities were unremarkable. In concluding that the incidents were "extraordinarily similar," the court also noted that: both occurred in a remote location, and after each death, Henthorn told inconsistent stories, collected significant insurance proceeds, and lied about the applicable insurance policies. *Id.* at 1249–51. These similarities amount to little more than that Henthorn's wives both died in remote locations and that he was the beneficiary of his wives' life insurance policies.

85 State v. Vail, 150 So. 3d 576, 588, 590 (La. Ct. App. 2014).

86 *Id.* at 588 (citing People v. Mardlin, 790 N.W.2d 607, 615 (Mich. 2010)).

87 Spector, who is known for creating the "wall of sound," was inducted into the Rock & Roll Hall of Fame in 1989. *Phil Spector*, ROCK & ROLL HALL OF FAME, https://rockhall.com/inductees/phil-spector [https://perma.cc/QZX8-XNVV]. This murder case is explored in "Hunting Phil Spector," the first episode of the Netflix documentary series, "Homicide: Los Angeles." Amanda Richards, *Homicide: Los Angeles Doc Series Exposes the Dark Side of the City of Angels*, NETFLIX: TUDUM (July 16, 2024), https://www.netflix.com/tudum/articles/homicide-los-angeles-release-date-trailer-news [https://perma.cc/ZA5T-742R]. It is also the subject of a four-episode television

one night.[88] He claimed the woman fatally shot herself, either deliberately or accidentally.[89] The prosecution called five women, each of whom testified Spector had assaulted her with a gun.[90] Spector did not shoot or even fire a gun at any of them.[91] But the court held that these non-homicide assaults were similar enough to the charged homicide to warrant admission under the doctrine of chances.[92] Compare this to *State v. Argueta*, in which the defendant was charged with burglary and forcible sexual assault.[93] The prosecution argued the doctrine of chances authorized it to introduce evidence that the defendant had previously trespassed near another woman's house.[94] The Utah Supreme Court wrote that the record did not allow it to determine whether the prior trespass was sufficiently similar. The prosecution failed to indicate that it involved going inside with the intent to commit an assault, which would make it a burglary, like the charged offense.[95]

In recent years, a different kind of similarity dispute has broken out. In *State v. Skillicorn*,[96] the Oregon Supreme Court held that the doctrine of chances did not sanction the admission of evidence that a defendant had intentionally committed a prior offense to rebut a defense of accident.[97] The court quoted Imwinkelried extensively. For example:

> According to Imwinkelried, under Wigmore's theory, "the inference of *mens rea* arises from the implausibility of the defendant's claim of 'successive similar' innocent acts." *Id.* § 5:8 at 5-36.
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> According to Imwinkelried, doctrine-of-chances reasoning . . . "does not require the jurors to consciously advert to the question of the accused's personal, subjective character. Rather, they are asked to

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miniseries. *Spector*, IMDB, https://www.imdb.com/title/tt21882434 [https://perma.cc/Q68G-KU95].

88 People v. Spector, 128 Cal. Rptr. 3d 31, 38 (Ct. App. 2011).

89 *Id.*

90 *Id.* at 47–51.

91 In each incident, Spector pointed a gun at the victim and threatened her; in one, he hit the victim with a gun; in one, he pushed and slapped the victim; and in two, he touched the gun to the victim's head. *Id.* at 48–51.

92 *Id.* at 67–68; *see also* Moore v. State, 443 P.3d 579, 584–85 (Okla. Crim. App. 2019) (admitting, under the doctrine of chances, two later non-homicide assaults to rebut the defendant's claim that the alleged victim died as a result of an accidental fall and that the defendant did not intentionally kill him).

93 469 P.3d 938, 941 (Utah 2020).

94 *Id.* at 945–46.

95 *Id.* at 947–48. The court held that any error in admitting the evidence was harmless. *Id.* at 948, 950–51.

96 479 P.3d 254 (Or. 2021).

97 *Id.* at 267–70.

assess the objective improbability of so many accidents or inadvertent acts." *Id.*[98]

Therefore, the court concluded that when the prosecution seeks to prove lack of accident via the doctrine of chances, "the application of the doctrine requires an assessment of the odds that all of the events in a series were accidental."[99] Imwinkelried quickly took up the cudgel.[100] Conceding that *Skillicorn* had correctly quoted him, he renounced what he now called his "broad, loose language suggesting that the doctrine applies only when the accused has made an implausible claim of 'successive similar' innocent acts."[101] He argued that "[n]either lay nor statistical logic" precludes the doctrine of chances from being used when a defendant's other acts were intentional.[102] On this, Imwinkelried was behind the curve. Numerous courts had already reached this conclusion and sanctioned the use of intentional other acts[103] as doctrine-of-chances evidence.[104]

In sum, the similarity requirement can hardly be described as a true requirement. Courts use different and conveniently flexible language to describe it and cannot agree even on what needs to be similar. The second requirement for the doctrine of chances—frequency—fares even worse.

b. Frequency

Courts and commentators agree there is no magic number of other acts that must be reached before the doctrine of chances applies.[105] Sometimes they note that the doctrine applies when there is a string or

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98 *Id.* at 268–69 (first quoting IMWINKELRIED, UNCHARGED MISCONDUCT EVIDENCE, *supra* note 15, § 5:8; and then quoting Imwinkelried, *Criminal Minds*, *supra* note 22, at 856).

99 *Id.* at 270; *see also* Browne v. State, 305 A.3d 445, 449–50, 467–68 (Md. 2023) (rejecting, in defendant's trial for child abuse and murder of the defendant's girlfriend's seventeen-month-old child, evidence offered under the doctrine of chances that the defendant pled guilty to child abuse that led to the defendant's own son's death).

100 Imwinkelried, *Admitting Evidence*, *supra* note 22, at 1–2.

101 *Id.* at 12 (citation modified).

102 *Id.* at 27.

103 *E.g.*, United States v. Queen, 132 F.3d 991, 996–98 (4th Cir. 1997); People v. Lisenba, 94 P.2d 569, 581–82 (Cal. 1939); Moore v. State, 443 P.3d 579, 584–85 (Okla. Crim. App. 2019); De La Paz v. State, 279 S.W.3d 336, 347–48 (Tex. Crim. App. 2009).

104 *Skillicorn* exemplifies the seductive power of the doctrine of chances. Despite its obvious efforts to think through the doctrine of chances, the *Skillicorn* court still insisted that, when properly applied, the doctrine of chances may prove guilt without requiring jurors to draw a propensity inference. The *Browne* court, *see infra* note 153, reached the same conclusion. But as Part II demonstrates, other-act evidence admitted under the doctrine of chances typically draws its probative value only through a propensity inference.

105 Imwinkelried insists that it is "wrong-minded to focus on the absolute number of uncharged incidents." 1 IMWINKELRIED & LAVE, *supra* note 15, § 4:3.

series of improbable, unusual, or infrequent events[106] or when highly unusual events repeat themselves.[107] Somewhat more nuanced statements of the frequency requirement acknowledge that it is all relative. The frequency requirement is said to be met when a defendant has been involved in or associated with an incident more frequently than an average, or typical, or innocent person would be.[108] But this is not a meaningful measure. The number of serious crimes in which the average, typical, innocent person is involved is—zero. The doctrine of chances is frequently invoked in murder trials. Yet among five American cities, often assailed for their high crime rates,[109] St. Louis had the highest homicide rate in 2024: 48.6 per 100,000.[110] Throw in accidental deaths, and the number of deaths per person may reach one out of a thousand. Multiply this by the age of the average, typical, innocent person,[111] and the lifetime chance that the average person will be involved with or associated with a deliberate killing or accidental death is still minuscule. Arson—another popular type of case for the doctrine of chances—is similarly infrequent. The arson rate for American cities is 13.9 per 100,000; the highest subgroup rate is 23.4 per 100,000.[112] Again, throw in

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106 *E.g.*, 22B GRAHAM & BLINKA, *supra* note 28, § 5247.1; Williams & Ternavska, *supra* note 30, at 690; Miller v. Baldwin, 723 Fed. App'x 408, 411 n.4 (9th Cir. 2018); United States v. Henthorn, 864 F.3d 1241, 1252 n.8 (10th Cir. 2017).

107 *E.g.*, 1 WIGMORE, *supra* note 21, § 302, at 304; Imwinkelried, *The Use of Evidence*, *supra* note 18, at 586–87 ("[S]o numerous that it is objectively improbable that so many accidents would befall the accused."); *Queen*, 132 F.3d at 996; United States v. York, 933 F.2d 1343, 1350 (7th Cir. 1991); De La Paz v. State, 279 S.W.3d 336, 347 (Tex. Crim. App. 2009).

108 *E.g.*, People v. Everett, 250 P.3d 649, 658 (Colo. App. 2010) ("exceeds the frequency rate for the general population"); State v. Argueta, 469 P.3d 938, 946–47 (Utah 2020) ("more frequently than the typical person"); Imwinkelried, *Admitting Evidence*, *supra* note 22, at 22–23 ("average innocent person"); Imwinkelried, *Criminal Minds*, *supra* note 22, at 863 ("typical, innocent person"); Imwinkelried, *A Brief Essay*, *supra* note 22, at 8 ("typical person").

109 Baltimore, Detroit, St. Louis, Chicago, and New York. *See* Philip Bump, *Trump Keeps Claiming that the Most Dangerous Cities in America Are All Run by Democrats. They Aren't*, WASH. POST (June 25, 2020), https://www.washingtonpost.com/politics/2020/06/25/trump-keeps-claiming-that-most-dangerous-cities-america-are-all-run-by-democrats-they-arent [https://web.archive.org/web/20200626060047/https://www.washingtonpost.com/politics/2020/06/25/trump-keeps-claiming-that-most-dangerous-cities-america-are-all-run-by-democrats-they-arent].

110 Ernesto Lopez & Bobby Boxerman, *Crime Trends in U.S. Cities: Year-End 2024 Update*, COUNCIL ON CRIM. JUST. (Jan. 2025), https://councilonj.org/crime-trends-in-u-s-cities-year-end-2024-update [https://perma.cc/TL8Y-HZAJ].

111 More than half the murder offenders in 2023 were under the age of thirty. *Number of Murder Offenders in the United States in 2023, by Age*, STATISTA (Feb. 24, 2026), https://www.statista.com/statistics/251884/murder-offenders-in-the-us-by-age [https://perma.cc/65KC-TB5G].

112 CRIM. JUST. INFO. SERVS. DIV., U.S. DEP'T OF JUST., 2019 CRIME IN THE UNITED STATES, ARSON TABLE 1, https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/arson-table-1.xls [https://perma.cc/8HX7-2CNA].

accidental fires and multiply by the age of the average, typical, innocent person, and the number will be far closer to zero than one. Bank robberies are even rarer; in 2023, there were a grand total of 1,263 bank robberies nationally.[113] The average, typical, innocent person has never been involved in a bank robbery. Anyone, then, who has been involved in just one murder or accidental death, or arson or accidental fire, or bank robbery has been "involved in such incidents more frequently than the typical, innocent person."[114] The frequency requirement places no limits on the use of other-acts evidence. It allows the prosecution to offer evidence that a defendant has even only allegedly committed one other crime "similar" to the one for which the defendant is on trial.

This is not just a theoretical concern. In numerous cases, courts have invoked the doctrine of chances based on only one other incident.[115] *United States v. York* provides an example.[116] After York's failing bar was destroyed and his business partner killed in an explosion, York attempted to collect on insurance policies he had taken out both on the bar's assets and his partner's life. He was ultimately charged with attempted insurance fraud.[117] Invoking the doctrine of chances, the Seventh Circuit approved the admission of evidence that York had murdered his wife three years before and collected on her life insurance policy.[118] *York* is a widely-celebrated doctrine-of-chances case, perhaps because of its catchy line: "The man who wins the lottery once is envied; the one who wins it twice is investigated."[119] There is undoubted truth in that line, but York did not win the lottery twice. His actions were far more prosaic: He allegedly killed and committed insurance fraud twice. Evidence of his prior offense—that he once before killed someone and committed insurance fraud—was being offered to prove the charged crime—that he killed and committed insurance fraud this time.

Critics, and even Imwinkelried, have bemoaned courts' willingness to admit evidence under the doctrine of chances without demanding data about how often an average person is involved with a particular type of

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113 FED. BUREAU OF INVESTIGATION, U.S. DEP'T OF JUST., 2023 BANK CRIME STATISTICS REPORT 1, https://www.fbi.gov/file-repository/reports-and-publications/bank-crime-statistics-2023-091724.pdf/view [https://perma.cc/35EB-65UM].

114 Imwinkelried, *Criminal Minds*, *supra* note 22, at 863.

115 *E.g.*, Miller v. Baldwin, 723 F. App'x 408, 410–11 (9th Cir. 2018); People v. Demetrulias, 137 P.3d 229, 238–42 (Cal. 2006); Farmer v. State, 405 P.3d 114, 121–22 (Nev. 2017); State v. Murillo, 509 S.E.2d 752, 764–65 (N.C. 1998).

116 933 F.2d 1343, 1350 (7th Cir. 1991).

117 *Id.* at 1345–47.

118 *Id.* at 1346–48, 1353.

119 *Id.* at 1350. More than twenty cases have quoted this line.

incident.[120] But the homicide, arson, and bank robbery figures show that bringing such data to light would reveal that the frequency requirement is a myth. Beyond that, the data actually downplay the problem. The average person who lives in a wealthy, gated community is statistically less likely to be involved in or associated with a homicide than someone living in a poor, drug-riven community.[121] The average wealthy person is also less likely to be wrongfully accused of such a crime. And once a person is wrongfully accused of a crime, that person is more likely to be wrongfully accused of another crime—the well-known "round up the usual suspects" phenomenon.[122] So in some communities, for some crimes, the average person may be involved in or associated with a particular type of crime more than once. For these people, therefore, the frequency requirement would demand a higher threshold number of other incidents. It is hard to imagine, however, just how the prosecution would be able to produce reliable baseline data in a given case.[123]

Either individually or combined, the similarity and frequency requirements fail to provide a test that courts can meaningfully apply. It is no wonder that David Leonard—ironically, a proponent of the

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120 Bloom, *supra* note 33, at 1146; Imwinkelried, *Criminal Minds*, *supra* note 22, at 871; State v. Richins, 496 P.3d 158, 173–74 (Utah 2021), *abrogated by* State v. Green, 532 P.3d 930 (Utah 2023).

121 Ariana N. Gobaud et al., *Absolute Versus Relative Socioeconomic Disadvantage and Homicide: A Spatial Ecological Case-Control Study of US Zip Codes*, 9 INJURY EPIDEMIOLOGY 1, 4 (2022) ("[L]ower median household income at the ZIP code-level contributed most substantially to homicide.").

122 *See, e.g.*, DAN SIMON, IN DOUBT: THE PSYCHOLOGY OF THE CRIMINAL JUSTICE PROCESS 17–20 (2012); Roger C. Park, *Character at the Crossroads*, 49 HASTINGS L.J. 717, 749 (1998); Rothstein, *Intellectual Coherence*, *supra* note 33, at 1263.

123 Even in a case where there may seemingly be a basis for computing the likelihood of a random occurrence, calculating the odds of two such occurrences befalling an individual is often dicey. The case of Sally Clark, a British solicitor who was convicted of murdering her two infant children, is instructive. The prosecution's expert, an eminent British pediatrician, testified that the odds of a child suffering an innocent "cot death" (sudden infant death syndrome, or SIDS) were 1/8,543. He then calculated the odds of two consecutive innocent deaths in a family by squaring 1/8,543. This yielded odds of approximately one in seventy-three million. John Sweeney & Bill Law, *Gene Find Casts Doubt on Double "Cot Death" Murders*, GUARDIAN (July 15, 2001), https://www.theguardian.com/uk/2001/jul/15/johnsweeney.theobserver [https://perma.cc/QVM4-9P49]. The original likelihood figure was questionable. The expert questionably discounted the overall cot death mortality rates by accounting for the defendant's economic and nonsmoking status. C.J. Bacon, *The Case of Sally Clark*, 96 J. ROYAL SOC. MED. 105, 105 (2003). Squaring the 1/8,543 number was even more problematic because two such deaths may not be independent events: there may have been a genetic link to children's cot deaths. *See* Jason W. Miklas et al., *TFPa/HADHA Is Required for Fatty Acid Beta-oxidation and Cardiolipin Re-modeling in Human Cardiomyocytes*, 10 NATURE COMMC'N 1, 1–2 (2019); Roope Männikkö et al., *Dysfunction of NaV1.4, a Skeletal Muscle Voltage-gated Sodium Channel, in Sudden Infant Death Syndrome: A Case-control Study*, 391 LANCET 1483 (2018). Clark's conviction was ultimately overturned. Clare Dyer, *Sally Clark Freed After Appeal Court Quashes Her Convictions*, 326 BRIT. MED. J. 304, 304 (2003).

doctrine—wrote that it is "likely far more ubiquitous than might appear at first"[124] and lacks "meaningful intrinsic limitations."[125] More recently, however, one scholar has offered another explanation for how doctrine-of-chances evidence can be distinguished from ordinary character evidence.

2. Bavli's Objective-Chance Exception

In a 2022 article, Hillel Bavli offers an intriguing and somewhat different take on the doctrine of chances.[126] Although he uses the term "objective-chance evidence," he is referring to the same type of probabilistic reasoning championed by advocates of the doctrine of chances.[127] Bavli argues, however, that objective-chance evidence—"properly defined"—is different from other types of character evidence.[128] Objective-chance evidence possesses a far greater potential to promote accurate factfinding than ordinary character evidence.[129] It is much more probative than ordinary character evidence[130] and is used only when it is necessary.[131] Because Bavli recognizes that objective-chance evidence may require a propensity inference,[132] he proposes an objective-chance-evidence exception to the character-evidence rule.[133] Objective-chance evidence should be admissible even though it requires a propensity inference. Bavli recognizes, however, that without meaningful

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124 LEONARD, *supra* note 25, § 6.3.1, at 437.

125 *Id.* § 7.3.2, at 490. The lack of meaningful requirements clearly underlies the Utah Supreme Court's recent decision to abandon the doctrine of chances. The court did so because the doctrine "has . . . proven to be more confusing than helpful." *Green*, 532 P.3d at 944. Despite formally rejecting the doctrine, the court went on to uphold the admission of evidence, in a sexual assault case, that the defendant had been accused of five other sexual assaults. *Id.* at 945–47.

126 *See* Hillel J. Bavli, *An Objective-Chance Exception to the Rule Against Character Evidence*, 74 ALA. L. REV. 121, 122 (2022).

127 Imwinkelried sometimes refers to the doctrine of objective chances. *E.g.*, Imwinkelried, *Admitting Evidence*, *supra* note 22, at 1.

128 Bavli, *supra* note 126, at 158. Bavli defines objective-chance evidence as "evidence regarding events of the same general kind as the event at issue, offered to prove that the event at issue, in light of the number of similar events evidenced, did not occur randomly but rather occurred in accordance with the events evidenced." *Id.* at 151.

129 *Id.* at 158.

130 *Id.* at 154 ("[O]bjective-chance evidence involves particularly high levels of precision relative to other forms of character evidence.").

131 *Id.* at 153–54 ("[O]bjective-chance evidence is generally offered to prove matters for which there is little other available evidence.").

132 *See infra* Section II.A.

133 Bavli, *supra* note 126, at 155–68.

limitations, his proposed exception will devour the character-evidence rule. Unfortunately, his attempt to articulate such limitations fails.

First, Bavli says objective-chance evidence requires a combination of sample size, uniformity, and low levels of uncertainty surrounding their occurrence.[134] Although Bavli's terms are slightly different, they amount to essentially the same similarity and frequency requirements for doctrine-of-chances evidence.[135] Bavli's test thus offers no real basis for distinguishing objective-chance evidence from lots of ordinary character evidence.

Second, Bavli claims that his objective-chance evidence is limited to situations where it is necessary.[136] But it isn't: note his repeated hedging. "[O]bjective-chance evidence informs matters for which there is *generally* little evidence."[137] It is "*usually* offered to prove a party's state of mind" where Bavli says other evidence is often unavailable;[138] it is "*rarely*" used to prove identity.[139] In other words, objective-chance evidence may inform matters for which there is substantial evidence. And it may be offered to prove things, like identity, and not just state of mind, for which there is often little other evidence. This is not a meaningful limitation.

A more fundamental problem lies in Bavli's further attempt to explain how his objective-chance evidence is truly different from ordinary character evidence.[140] He poses a robbery case in which a prosecutor might try to invoke Bavli's objective-chance-evidence

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134 *Id.* at 154.

135 *Id.* Instead of "frequency," Bavli demands there be "sufficiently numerous incidents." He neither offers a magic number nor explains what makes the number of incidents sufficient. *Id.* For similarity, he demands "internal uniformity" (the other acts must be similar to each other) and "uniformity relative to the event at issue." *Id.* The first form of uniformity, however, is embraced in the second: If one other act is similar to the event at issue and another one is not, the two other acts cannot be meaningfully similar to each other. Finally, Bavli adds a requirement that there be "low levels of uncertainty surrounding the occurrence of the prior events." *Id.* In many doctrine-of-chances cases, including *Woods*, *Vail*, and *Mardlin*, the multiplicity of similar events is the sole basis for concluding that the prior events occurred. *See supra* notes 1–37 and accompanying text. Presumably, low levels of uncertainty in such cases are achieved only when there are "sufficiently numerous incidents," but he leaves unexplained what constitutes "sufficiently numerous incidents." Bavli, *supra* note 126, at 154. Moreover, Bavli's requirement is inconsistent with the low conditional-relevancy standard that typically governs the admission of other-acts evidence. *See infra* Section III.A.

136 Bavli, *supra* note 126, at 153–54.

137 *Id.* at 153 (emphasis added).

138 *Id.* (emphasis added). I agree that state of mind is often extremely difficult to prove and have proposed that a true exception to the character-evidence rule should be established when the actus reus of a crime is established and state of mind is truly controverted. *See infra* Section III.A.

139 Bavli, *supra* note 126, at 163 (emphasis added).

140 *Id.* at 162–65.

exception to justify proof of multiple instances in which the defendant has been suspected of robbery.[141] The prosecutor might argue that it is highly unlikely the defendant would have been suspected of so many robberies if he had nothing to do with them; therefore, the odds are high he committed at least one of them; therefore, he is likely to have committed the robbery for which he is now on trial.[142]

Bavli says this misses how objective-chance evidence differs from ordinary character evidence. He begins by returning to his hedge. Genuine objective-chance evidence is *usually* used to prove state of mind; it *rarely* involves questions of identity.[143] He then writes that the "fundamental distinction" is that objective-chance evidence "always involves the following question: Is this event due to chance or to something else—i.e., to the hypothesized element, such as design, intent, or knowledge?"[144] In the robbery hypothetical, Bavli says, we know the robbery occurred and that whoever committed it intended to do so. The only thing we don't know is who did it. Since the event was not due to chance, Bavli concludes, the objective-chance evidence exception would not apply.[145] The problem with this "fundamental distinction" is that it simply doesn't work.

Suppose we have a case in which the defendant is accused of murdering a Black female sex worker.[146] The defendant's DNA, along with the DNA of several other people, was found at the crime scene. The defendant offers an innocent explanation for the presence of his DNA—he was with the victim earlier in the day. The state wants to introduce evidence that the defendant's DNA was also found at the murder scenes of three other Black female sex workers. We know that the victim in the charged case was murdered and whoever killed her intended to do so. The only thing we don't know is who did it. Since Bavli implicitly concedes that objective-chance evidence is sometimes used to prove identity, it is hard to believe that he would contend the other-acts evidence here is merely ordinary character evidence. But what is the analytical difference between this case and Bavli's robbery hypothetical? The DNA evidence may be more persuasive proof than the prior robbery accusations that the defendant committed the prior acts. But that is a matter of the probative

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141 *Id.* at 162–63.

142 *Id.*

143 *Id.* at 153, 163.

144 *Id.* at 163.

145 *Id.* at 164.

146 This hypothetical is modeled on *State v. Jackson*, 498 P.3d 788 (Or. 2021).

value of the evidence rather than a distinction in how the evidence is probative.[147]

Let's change the facts in *Woods*. Suppose the forensic pathologist testifies, and Martha Woods concedes, that her infant son Paul had been smothered to death. Woods says, however, she didn't do it. She offers evidence that three other adults in the house had access to Paul and calls a friend who provides a flimsy alibi. The only question is who committed what we know was a murder. Would Bavli contend that evidence of the twenty other cyanotic episodes and six deaths with which Woods was associated is merely ordinary character evidence? If so, how would this make sense? Why would the evidence be admissible to prove that a murder had occurred (and that Woods had done it)[148] but not to prove that Woods had committed what we know was a murder?

In the end, Bavli's requirements for what qualifies as objective-chance evidence are as elastic as the doctrine of chances' similarity and frequency requirements. He is unable to explain convincingly how his objective-chance evidence differs from ordinary character evidence. Bavli's objective-chance evidence is just doctrine-of-chances evidence in a different guise. And given the doctrine of chance's lack of meaningful standards, it should come as no surprise that even a quick review of the case law reveals glaring inconsistencies in how courts use (and do not use) it.

3. Inconsistent Case Law

Some commentators note that, without ever mentioning the doctrine of chances, courts often employ doctrine-of-chances reasoning.[149] Other commentators complain that courts often invoke one or more of Rule 404(b)'s permissible purposes[150] to justify admitting

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147 I suspect that if there were surveillance video footage showing the defendant in Bavli's hypothetical had committed the prior robberies, Bavli would still say this is ordinary character evidence. How, analytically, would that be different from the defendant in my hypothetical having his DNA found at three previous murder scenes?

148 In fact, the Fourth Circuit said that the other-acts evidence was admissible to prove both that a crime had been committed and the identity of Martha Woods as the wrongdoer. United States v. Woods, 484 F.2d 127, 135–36 (4th Cir. 1973).

149 *E.g.*, LEONARD, *supra* note 25, § 6.3.1b, at 437 ("Courts often employ doctrine of chances reasoning without labeling it as such, suggesting that the theory is likely far more ubiquitous than might appear at first.").

150 FED. R. EVID. 404(b)(2) (stating that evidence of other crimes, wrongs, or acts can be used to show "motive, opportunity, intent, preparation, plan, knowledge, identity, absence of mistake, or lack of accident").

evidence when they could have more convincingly invoked the doctrine of chances.[151] A review of cases across jurisdictions reveals similar types of cases in which some courts rely on the doctrine of chances and other courts never mention it.[152] Finally, even as a particular case works its way through the appellate process, the state's own courts vary in their willingness to invoke the doctrine of chances.[153]

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151 Cammack, *supra* note 30, at 356; Imwinkelried, *Criminal Minds*, *supra* note 22, at 870; Jacobson, *supra* note 56; Niehoff & Hickey, *supra* note 30, at 18.

152 Arson cases offer one such example. *Compare* People v. Mardlin, 790 N.W.2d 607, 612–13 (Mich. 2010) (invoking doctrine of chances to justify admitting evidence of prior arsons), *and* Westfield Ins. Co. v. Harris, 134 F.3d 608, 615 (4th Cir. 1998) (same), *with* Hammann v. Hartford Accident & Indem. Co., 620 F.2d 588, 589 (6th Cir. 1980) (admitting evidence of four other fires as proof of motive, intent, or knowledge without mentioning doctrine of chances). *Cf.* United States v. Gant, 721 F.3d 505, 509 (8th Cir. 2013) (using language that echoes Wigmore's but never mentioning doctrine of chances). A trio of cases involving the drowning of the defendant's wives offers another example. The granddaddy of these cases is *R. v. Smith* [1915] 11 Cr. App. R. 229 (Eng.), the famous "Brides in the Bath" case. Smith was convicted of murdering his wife who had drowned in their bathtub, in no small part because the prosecution offered evidence that, in the two succeeding years, Smith's next two wives drowned in a bathtub. TRIAL OF GEORGE JOSEPH SMITH 273–74 (Eric R. Watson ed., 1922). The trial judge dutifully instructed the jurors that they could not consider this as evidence of the accused's character. *Id.* The judge then described examples of multiple incidents (such as a gambler repeatedly holding the ace of trumps in his pocket or an insured suffering repeated fires) and told the jury:

> What the law says you may think is that that series of fortunate accidents does not usually happen to the same person so many times, and that you may draw from that series of fortunate accidents the inference that it was not an accident at all, but that it was designed. That illustrates the way in which you may use, in dealing with a criminal case, the occurrence, the repeated occurrence, of the same accident to a person who benefits by the accident each time.

Id. at 275. Similarly, the California Supreme Court invoked the doctrine of chances to allow evidence of the bathtub-drowning death of a former wife to prove that the defendant had murdered his second wife, who was found drowned in their fishpond. People v. Lisenba, 94 P.2d 569, 579–82 (Cal. 1939). But in *Commonwealth v. Boczkowski*, where the defendant's wife was found dead in a hot tub, the Pennsylvania Supreme Court upheld the admission of evidence that the defendant's previous wife had been found dead in her bathtub with nary a mention of the doctrine of chances. 846 A.2d 75, 82 (Pa. 2004). Two other cases involving similar settings manifest courts' inconsistent use of the doctrine of chances. *Compare* State v. Murillo, 509 S.E.2d 752, 764–65 (N.C. 1998) (invoking the doctrine of chances to admit evidence that the murder defendant, who claimed the shooting of his wife was accidental, had, two decades earlier, accidentally shot his first wife to death), *with* People v. New, 77 Cal. Rptr. 3d 503, 524–25 (Ct. App. 2008) (admitting, in defendant's trial for shooting his third wife to death, evidence of what police had concluded was the accidental shooting of defendant's first wife thirty years earlier without mentioning doctrine of chances).

153 The notorious case of Michael Peterson provides one such example. Peterson, a sometimes novelist, past columnist with the local newspaper, and unsuccessful mayoral candidate in Durham, North Carolina, was charged with murdering his wife. He claimed her death resulted from an accidental fall down a staircase at their house. State v. Peterson, 634 S.E.2d 594, 600 (N.C. Ct. App. 2006). The trial judge allowed the prosecution to introduce evidence that, sixteen years before, when Peterson and his first wife were living in Germany, a neighbor and close friend of theirs died

4. Summary

The doctrine of chances is not what it pretends to be—a doctrine. Its proponents' efforts to explain how it differs in kind from other types of other-acts evidence are deeply flawed. The similarity requirement that is supposed to help distinguish doctrine-of-chances evidence is hopelessly muddled. It is not just that similarity is a malleable concept; courts and commentators cannot even agree on what exactly needs to be similar. Worse yet, the frequency requirement that lies at the heart of the doctrine of chances is utterly meaningless. Bavli's attempt to rescue the doctrine of chances under the guise of an objective-chance-evidence exception to the character-evidence rule likewise fails. The case law's inconsistency manifests the ineffectuality of efforts to define when the doctrine of chances applies and when it does not.

Even if it were possible to devise a satisfactory standard, a more substantial problem exists. The major selling point for proponents of the doctrine of chances—that it avoids propensity reasoning—fails to stand up to close scrutiny.

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when she apparently accidentally fell down the staircase in her house. *Id.* at 607–09. Peterson had gone to the deceased's residence the night before to help with a household chore, and German authorities had ruled the death was accidental. *Id.* at 607–08. But after Peterson was charged with his second wife's murder, the Durham prosecution had the body exhumed, and the prosecution's experts disputed the German authorities' conclusion. *Id.* at 608. Relying on the doctrine of chances, the North Carolina Court of Appeals affirmed. *Id.* at 609–10. The state supreme court affirmed the conviction but never mentioned the doctrine of chances. State v. Peterson, 652 S.E.2d 216, 224–27 (N.C. 2007). Instead, it cited what it said were numerous similarities between the two deaths and asserted that these were sufficient to allow jurors to infer that the same person committed both killings. *Id.* at 224–26. The court's failure to mention the doctrine of chances is particularly notable because it discussed its earlier decision in *State v. Stager*, which explicitly relied on the doctrine of chances. 406 S.E.2d 876, 891–92 (N.C. 1991). The Peterson case has been the subject of a thirteen-episode Netflix documentary, THE STAIRCASE (2004, 2013, 2018), https://www.imdb.com/title/tt0388644 [https://perma.cc/EY92-M3ST]; a fictionalized eight-episode version on HBO, THE STAIRCASE (2022), https://www.imdb.com/title/tt11324406 [https://perma.cc/EFC4-8QWP]; books, e.g., DIANE FANNING, WRITTEN IN BLOOD (2005); and several podcasts, including BBC Radio 5's eighteen-episode series, BBC Radio 5, *Beyond Reasonable Doubt*, https://www.bbc.co.uk/programmes/articles/HtDcGGMLV1WBYNfL8skTS7/beyond-reasonable-doubt [https://perma.cc/TU9L-HCQH]. More recently, Maryland's intermediate court of appeals and supreme court differed as to the applicability of the doctrine of chances. A defendant was tried for murdering his girlfriend's seventeen-month-old child. Browne v. State, Nos. 1892, 0495, 2022 WL 17490062, at *2 (Md. Ct. Spec. App. Dec. 7, 2022). The intermediate court held the doctrine of chances justified admitting evidence the defendant had five years earlier pled guilty to child abuse that resulted in his own infant son's death. *Id.* at *40. The higher court reversed. Although it agreed that the doctrine of chances "may be a useful theory to invoke in other circumstances," in this case "it served merely as a cover for impermissible propensity-based reasoning." Browne v. State, 305 A.3d 445, 465 (Md. 2023).

II. THE REASONING BEHIND THE DOCTRINE OF CHANCES

A seduction often succeeds because the seducer's promises sound convincing, even when they are false. And careful analysis shows the doctrine of chances' promise of nonpropensity probative value—convincing as it may sound—typically turns out to be false. Wigmore claimed that evidence of multiple instances of an occurrence "eliminates the element of innocent intent" without requiring a propensity inference.[154] But he offered no explanation as to how; he simply asserted that it works through a "rough and instinctive process of reasoning."[155] In 1990, Imwinkelried took up the task; he articulated an inferential chain he claimed did not involve propensity reasoning.[156] Although a handful of commentators and a couple of courts have persuasively demonstrated the flaws in Imwinkelried's logic, he and most other commentators and courts continue to fall prey to the doctrine's siren song.

A. *The Doctrine of Chances Typically Requires a Propensity Inference*

Imwinkelried's advocacy of the doctrine of chances hinges on his claim that the doctrine can be deployed without asking jurors to draw a propensity inference. He contrasts two chains of inferences that might be drawn from offering evidence of a defendant's other acts. Jurors might infer that the defendant has a "personal, subjective bad character" and then draw the "ultimate inference": With regard to the charged offense, the defendant acted consistently with that bad character and committed the crime.[157] This, says Imwinkelried, is a forbidden propensity inference.[158] But, he says, when the other acts meet the similarity and frequency requirements, jurors might draw a different inference: "Considered together, the charged and uncharged events would be an objectively improbable coincidence." Jurors might then draw the "ultimate inference": "One or some of the incidents were intentional misdeeds rather than accidents."[159] This, says Imwinkelried, is the nonpropensity inference that underlies the doctrine of chances.[160]

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154 1 WIGMORE, *supra* note 21, § 302, at 390.

155 *Id.*

156 Imwinkelried, *The Use of Evidence*, *supra* note 18, at 578–79.

157 Imwinkelried, *Admitting Evidence*, *supra* note 22, at 4.

158 *Id.* at 4–6.

159 *Id.* at 7.

160 *Id.* at 7–10; IMWINKELRIED & LAVE, *supra* note 15, § 5:6.

This fails, however, to describe the full inferential process necessary to go from "an objectively improbable coincidence" to the defendant's guilt on the charged crime. To the contrary: it highlights a serious flaw in the analysis. As both some commentators[161] and courts[162] have pointed out, Imwinkelried claims only that the "ultimate inference" jurors may draw is that "one or some" of the incidents were intentional.[163] But jurors are not asked to decide whether the defendant is guilty of "one or some" of a number of incidents. They are asked to decide whether the defendant is guilty of a particular incident: the charged offense. The character-evidence rule exists largely because we fear that jurors may be tempted, consciously or unconsciously, to convict defendants for their past misdeeds rather than for the crime for which they are now on trial.[164] Imwinkelried's inferential scheme invites jurors to do just that. More important, it also omits the last required inferential step: How does the fact that "one or some" of the incidents were intentional misdeeds yield an inference that the defendant committed the charged crime? That, it turns out, typically requires a propensity inference.[165]

Let's again alter the facts of the *Woods* case. Suppose the prosecution had strong evidence that Martha Woods had, in fact, murdered the six other children and offered this evidence to prove she murdered little Paul. That fits the definition of impermissible character evidence to a T.[166] She murdered the other six children; therefore, she is a murderer; therefore, she murdered Paul. How then can the weaker evidence the case actually presented—that Woods had access to six other children who suffered cyanotic episodes and died—prove, without propensity reasoning, that she murdered Paul? Imwinkelried contends it does so because the

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161 *E.g.*, Bavli, *supra* note 126, at 155–57; Steven Goode, *It's Time to Put Character Back into the Character-Evidence Rule*, 104 MARQ. L. REV. 709, 756 (2021); Sullivan, *supra* note 33, at 34-5.

162 State v. Jackson, 498 P.3d 788, 803–04 (Or. 2021); State v. Vuley, 70 A.3d 940, 949–51 (Vt. 2013).

163 Imwinkelried, *Admitting Evidence*, *supra* note 22, at 4. Many courts use similar language. *See, e.g.*, United States v. Woods, 484 F.2d 127, 133 (4th Cir. 1973); People v. Mardlin, 790 N.W.2d 607, 613 (Mich. 2010); State v. Skillicorn, 479 P.3d 254, 268 (Or. 2021); People v. Spector, 128 Cal. Rptr. 3d 31, 66 (Ct. App. 2011).

164 IMWINKELRIED & LAVE, *supra* note 15, § 1:3 ("[T]he introduction of uncharged misconduct evidence will tempt the trier of fact—at least at a subconscious level—to penalize the defendant for his or her past misdeeds.") (emphasis omitted); *see* Park, *supra* note 122, at 720–24.

165 *See infra* Section II.B (discussing situations where repeated, similar other acts may be probative without a propensity inference); *infra* Section III.B (discussing situations where they may be probative without a *character*-propensity inference).

166 This is not to say that courts would refuse to admit such evidence. When confronted with such highly probative evidence, they often cite one or more of the permissible purposes listed in Rule 404(b) (e.g., plan) and ignore that propensity reasoning is required. *See* Goode, *supra* note 161, at 724–60.

admission of such evidence objectively eliminates the chance that all these deaths were accidental. This, in turn, increases the likelihood that at least one of them—including little Paul's—was not accidental.[167] But evidence of the other six deaths tends to prove Woods murdered Paul only if she murdered at least one of the other children. Suppose all the other children had actually died of natural causes. How would the fact that Woods had been extremely unlucky tend to prove she murdered Paul?

Imwinkelried says, and no one would disagree, the odds of seven such accidental deaths are astronomical; at least one must be murder. According to Imwinkelried then, if the first six are accidental, the seventh must be murder.[168] That's absurd.[169] If you were playing the dice game craps, you likely would know that the chance of any given roll of the dice coming up seven is one out of six. If your opponent rolled six straight sevens—a 1/46,656 likelihood[170]—you might well suspect that your opponent was using loaded dice and the chance of a seven coming up on the next toss is close to one hundred percent. But if you demanded to inspect the dice and discovered they were good, you would realize that your opponent simply had been extremely lucky. Rare events are rare, but they do happen; the chance of a seven coming up on the next toss would still be one of six. If the other six children in *Woods* all died of natural causes, Martha Woods would be the equivalent of your craps game opponent (although she would have been extremely unlucky while your opponent was extremely lucky). The six other deaths would have no effect on the odds that Paul's death was nonaccidental. For the evidence of the other deaths to alter the chances that she committed murder, Woods must have killed one or more of them. She must be the equivalent of a

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167 IMWINKELRIED & LAVE, *supra* note 15, § 4:1; Imwinkelried, *An Evidentiary Paradox*, *supra* note 22, at 456; *see* Bavli, *supra* note 126, at 155; Sullivan, *supra* note 33, at 33–34, 64.

168 Imwinkelried expressly reasons that the doctrine of chances operates to reject "the hypothesis that random chance accounts for all the outcomes." IMWINKELRIED & LAVE, *supra* note 15, § 4:1. Without propensity reasoning, eliminating the random chance hypothesis thus increases the probability that at least one of the outcomes is the product of human design. *Id.* So, Imwinkelried must implicitly reason, if there are seven unlikely events and the first six are truly accidental, the seventh must be the product of human design because the possibility that all could be the result of random chance has been eliminated.

169 *See* Morris, *supra* note 33, at 199–205; Rothstein, *Comment*, *supra* note 33, at 1260–63; Sullivan, *supra* note 33, at 41. Although Bavli ultimately argues for creating a true exception to the character evidence rule for objective-chance evidence, he seems to accept the logic of Imwinkelried's argument. Bavli, *supra* note 126, at 156 (noting that "the probative value of objective-chance evidence arises" both through propensity and nonpropensity reasoning). Bavli fears, however, that impermissible propensity reasoning would "entirely overshadow[]" any nonpropensity inference and so proposes a true exception as the best approach. *Id.* at 157–60.

170 Since the odds of rolling a seven are one out of six, the odds of rolling six consecutive sevens are $(1/6)^6$.

pair of loaded dice. She killed one or more of the other six children; therefore, she is a murderer; therefore, she murdered Paul.

The language the cases often use also reveals that the doctrine of chances typically involves a propensity inference. Recall the widely-quoted line from *York*: "The man who wins the lottery once is envied; the one who wins it twice is investigated."[171] It begins a paragraph that includes the following explanation for why the doctrine of chances avoids propensity reasoning:

> [T]he odds of the same individual reaping the benefits, within the space of three years, of two grisly murders of people he had reason to be hostile toward seem incredibly low, certainly low enough to support an inference that the windfalls were the product of design rather than the vagaries of chance. This inference is purely objective, and has nothing to do with a subjective assessment of York's character.[172]

If the "reaping of benefits . . . of two grisly murders" was "the product of design rather than the vagaries of chance," whose evil design was it? The defendant's, of course. York murdered his wife so he could collect the insurance proceeds, and that tends to prove he killed his business partner so he could collect the insurance proceeds because that is the kind of person York is. It has everything to do with an assessment of York's character, just as the other killings in *Woods* and *Vail* and the other fires in *Mardlin* all derive their probative value from an inference about the defendant's character.[173]

Standing almost alone, the Vermont[174] and Oregon[175] supreme courts have rejected the doctrine of chances.[176] Both conclude that the doctrine operates through propensity inferences. But they remain in the decided minority, as do the scholar-critics of the doctrine. One reason the doctrine's seductive promise of nonpropensity probative value persists is because it contains a small kernel of truth. In a limited context, the doctrine does provide probative value through nonpropensity reasoning.

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171 United States v. York, 933 F.2d 1343, 1350 (7th Cir. 1991).

172 *Id.*

173 Like *York*, *Mardlin* even explicitly says the aggregation of incidents "suggest[s] human design." People v. Mardlin, 790 N.W.2d 607, 618 (Mich. 2010).

174 State v. Vuley, 70 A.3d 940, 950–54 (Vt. 2013).

175 State v. Jackson, 498 P.3d 788, 800–04 (Or. 2021).

176 The Maryland Supreme Court recently rejected the use of the doctrine of chances when the prosecution offered proof that the defendant had previously been convicted of a similar intentional act (killing his infant son) to prove that he murdered his girlfriend's seventeen-month-old daughter. Browne v. State, 305 A.3d 445, 450–52, 467–69 (Md. 2024). The court held this required forbidden propensity reasoning. *Id.* at 467–68. The court insisted, however, that the doctrine of chances remained a viable nonpropensity method to prove, as in *Woods*, that "one or some of the incidents are likely not accidents." *Id.* at 467.

B. *Situations Where Other-Acts Evidence Works Without a Propensity Inference*

Courts invoke the doctrine of chances in two situations in which the probative value of other-acts evidence flows from a nonpropensity inference. The first is where the doctrine is erroneously invoked, but the evidence has nonpropensity probative value independent of the doctrine of chances. The second is where the small kernel of truth in the doctrine's promise of nonpropensity reasoning resides: in the doctrine's use in addressing conditional relevancy matters.

1. Courts Erroneously Invoke the Doctrine of Chances Where the Other-Acts Evidence Is Independently Admissible for a Nonpropensity Purpose

The character-evidence rule renders other-acts evidence inadmissible only when it is offered for a propensity inference. If such evidence draws its probative value from a nonpropensity inference, courts may admit it. The federal and most state evidence codes[177] provide a nonexclusive list of possible permissible uses. For example, Federal Rule 404(b)(2)'s nonexclusive list includes "motive, opportunity, intent, preparation, plan, knowledge, identity, absence of mistake, or lack of accident."[178] In some cases, courts have erroneously relied on the doctrine of chances and its bogus nonpropensity rationale to admit other-acts evidence that was independently probative for a purely nonpropensity purpose. In *Duntsch v. State*, for example, the defendant, a neurosurgeon, was charged with intentionally, knowingly, recklessly, or with criminal negligence causing serious bodily injury to an elderly person.[179] The charges arose from a botched back surgery he performed, which left his patient in excruciating pain and unable to move her legs.[180] The prosecution's medical expert testified that the defendant "did virtually everything wrong."[181] To rebut a potential defense that the defendant lacked a culpable mental state, the prosecution offered evidence of five other botched surgeries the defendant had performed in the eight months

177 *See supra* note 15.

178 FED. R. EVID. 404(b)(2).

179 568 S.W.3d 193, 198–99 (Tex. App. 2018).

180 *Id.* at 199.

181 *Id.* at 200.

leading up to the charged offense.[182] This evidence tended to show that the defendant was aware that his surgical skills were extremely deficient and that he therefore at least recklessly caused serious bodily injury.[183] Using a defendant's previous acts to prove knowledge is a commonly-recognized type of nonpropensity inference.[184] Similarly, a defendant's prior violent acts against the victim of the charged offense are commonly admitted to establish motive.[185] The prior acts manifest the defendant's hostility toward the victim; no propensity inference is required.[186] The court in *Robbins v. State*,[187] therefore, did not need to rely on the doctrine of chances to admit evidence that the defendant had thrice before assaulted his murder victim.[188]

A somewhat more subtle instance is examined in *State v. Vuley*.[189] The defendant was charged with four counts of arson.[190] Over an eight-

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182 *Id.* at 205–13. The defendant is the subject of a podcast called "Dr. Death," which won numerous awards, including the Ambie 2021 award for Best True Crime Podcast. *Dr. Death Awards*, IMDB, https://www.imdb.com/title/tt13708916/awards [https://perma.cc/22WF-U4K9].

183 Recklessness requires an awareness by the defendant of a substantial and unjustifiable risk that his conduct will cause a particular result. TEX. PENAL CODE ANN. § 6.03(c) (West 2025). Knowledge requires the defendant to be aware that his conduct is reasonably certain to cause the particular result. *Id.* § 6.03(b).

184 *See, e.g.*, United States v. Whitney, 524 F.3d 134, 141–42 (1st Cir. 2008) (admitting, to prove that defendant knowingly falsely stated when purchasing a firearm that he was not under a restraining order, evidence that he had been arrested for violating that restraining order shortly before making the statement); United States v. Uzenski, 434 F.3d 690, 710 (4th Cir. 2006) (upholding, in defendant's prosecution for possession of a pipe bomb, evidence of defendant's prior attempts to make pipe bombs as proof that defendant knew he was making a "destructive device"); United States v. Walters, 351 F.3d 159, 165–68 (5th Cir. 2003) (admitting a chapter of a book defendant owned that detailed how to construct explosives to prove defendant knew how to construct an explosive device).

185 *See, e.g.*, United States v. Berckmann, 971 F.3d 999, 1002–03 (9th Cir. 2020) (upholding the admission of evidence of other assaults on the victim as proof of defendant's animosity toward her and intent to assault her); United States v. Williston, 862 F.3d 1023, 1034–36 (10th Cir. 2017) (holding admissible defendant's previous violent acts against a child-murder victim as establishing animosity toward the victim, and hence a motive to kill); United States v. Howard, 692 F.3d 697, 702–06 (7th Cir. 2012) (holding that evidence of defendant's alternating acts of assaults on his ex-girlfriend and attempts to reconcile manifested defendant's obsession with her and so tended to prove defendant committed charged solicitation of murder).

186 In *United States v. DeCicco*, 370 F.3d 206, 209, 213 (1st Cir. 2004), the "victim" was a building. The First Circuit held the trial court erred in excluding evidence that the defendant had previously twice tried to burn down the same warehouse that was the subject of the charged arson. *Id.*

187 88 S.W.3d 256 (Tex. Crim. App. 2002).

188 *Id.* at 267–68 (Cochran, J., concurring).

189 70 A.3d 940 (Vt. 2013).

190 *Id.* at 944.

month span, his home had caught fire four times.[191] Because the trial judge expressly instructed the jury that they could use the doctrine of chances,[192] the state supreme court took up the issue. Notably, the court discussed and rejected the Wigmore-Imwinkelried view that the doctrine of chances rests on nonpropensity reasoning.[193] But the court held that the first two fires were admissible to cast doubt on the defense's claim that the last two fires were accidental. A defense expert had suggested they could have been caused by careless smoking.[194] The court responded that when someone accidentally does something with unfortunate consequences, the person gains a heightened awareness of the consequences such an action entails.[195] "Someone who has had two or three fires at his home in the span of a month should be much less likely to toss around cigarettes cavalierly."[196] Regrettably, the court called this the "psychological doctrine of chances."[197] But it has nothing to do with the probabilistic reasoning behind the doctrine of chances.[198] It is simply another example of how a defendant may gain knowledge from prior acts, which then tends to prove the defendant's guilt on the charged offense.[199] A different kind of use of the doctrine of chances, however, does involve probabilistic reasoning.

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191 *Id.* at 942–45. This was a rare case in which the prosecution presented evidence that the defendant had been the victim of an unusual event more than the average, innocent person. The four fires at defendant's home accounted for forty percent of all fires the local fire department had responded to over a two-year period. *Id.* at 942.

192 *Id.* at 945.

193 *Id.* at 947–51.

194 *Id.* at 944.

195 *Id.* at 953.

196 *Id.* at 954.

197 *Id.* at 952–53.

198 That the court, after so clearly dissecting the Wigmore-Imwinkelried view, embraced the term "doctrine of chances" provides further evidence of the doctrine's enduringly seductive allure.

199 A still subtler way of inferring a defendant's knowledge involves the type of nonpropensity reasoning promised by champions of the doctrine of chances. Suppose a defendant, on trial for transporting drugs across the border, claims he was unaware that drugs were hidden in the car he was driving. He claims he drove the car only because a friend asked him to do so as a favor. The prosecution offers evidence that in the previous year the defendant had fulfilled such a request for the same friend, and that each time, upon returning home, the friend paid him $2,000. A jury might well infer that the defendant could not have done this five previous times without figuring out that he was transporting drugs, or that, at the least, he remained "willfully blind" to what he was doing. *Cf.* Turner v. United States, 396 U.S. 398, 417 (1970) ("[T]hose who traffic in heroin will inevitably become aware that the product they deal in is smuggled, unless they practice a studied ignorance to which they are not entitled." (footnote omitted)).

2. The Doctrine of Chances and Conditional Relevancy

Cases invoking the doctrine of chances often raise two different questions. The first is whether the repeated occurrence of similar other acts can give rise—without propensity reasoning—to an inference that some or all those acts were not accidental. The second is whether the repeated other acts tend to prove—without propensity reasoning—that the defendant committed the charged offense. Our focus has been on the second question, and we have seen that, for that purpose, the doctrine of chances requires propensity reasoning. The first question, however, poses a conditional relevancy problem, and for that, typically, the doctrine of chances works without propensity reasoning.

Before the prosecution can offer evidence that the defendant committed other acts and that one or more of them were not accidental, it must establish that the defendant actually was involved in those acts and that one or more of them were not accidental.[200] Consider *Woods*. As the Fourth Circuit acknowledged, when looked at in isolation, there was no evidence that any of the other six children's deaths was anything but a tragic, natural death.[201] Each time the prosecution offered proof about one of these deaths, the defense could have objected on relevance grounds. Evidence of another child's natural death does not tend to prove that Paul died of unnatural causes. But such objections would fail. In *Huddleston v. United States*,[202] the Supreme Court held that the proof of the defendant's involvement in other acts is a conditional relevancy issue[203] governed by Federal Rule 104(b).[204] Under that rule, when the relevancy of one piece of evidence depends on proof of some fact, the trial court may admit the evidence conditionally. If sufficient evidence of the other fact is adduced, the condition for admissibility is met. And the sufficiency standard is low. All Rule 104(b) requires is sufficient proof to allow a reasonable juror to find the conditional fact by a preponderance of the evidence.[205] In assessing sufficiency, the trial court "must consider

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

201 United States v. Woods, 484 F.2d 127, 133 (4th Cir. 1973).

202 485 U.S. 681, 689–92 (1988).

203 *Id.* A paradigmatic conditional relevancy issue arises when the relevancy of a particular piece of evidence hinges on proof of certain other facts, and the relevancy of those other facts in turn hinges on proof of the first piece of evidence. *See* 1 MCCORMICK, *supra* note 26, § 58.

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

205 *Huddleston*, 485 U.S. at 690. Some states impose a higher burden of proof. Louisiana, for example, requires the state to prove by "clear and convincing evidence" that the defendant committed the other act. State v. Vail, 150 So. 3d 576, 579 (La. Ct. App. 2014). Despite this, *Vail* upheld the admissibility of evidence of the subsequent disappearances of two women with whom

all evidence presented to the jury."[206] In the context of *Woods*, this means that the unlikelihood that all six deaths were natural could lead a reasonable juror to find by a preponderance of the evidence—without relying on a propensity inference—that one or more of those deaths were not accidental. But that does not mean the court should admit the evidence. To be sure, jurors can use nonpropensity reasoning to conclude that Woods killed one or more of the other six children. The character-evidence rule, however, still bars the use of such evidence to prove Woods's character so that the jury may infer that Woods acted in accordance with that character and killed little Paul. Whether the repeated occurrence of similar other acts can give rise—without propensity reasoning—to an inference that some or all those acts were not accidental is a different question from whether the repeated other acts tend to prove—without propensity reasoning—that the defendant committed the charged offense. Imwinkelried and other advocates of the doctrine have conflated these two questions.[207] Because the conditional relevancy problem yields to a nonpropensity inference, Imwinkelried and others have been seduced into thinking that the guilt question also yields to a nonpropensity inference.[208]

Even regarding the conditional relevancy issue, however, in one key respect *Huddleston* went too far. When *Huddleston* said that the trial court must consider "all evidence presented to the jury" in making its Rule 104(b) sufficiency determination, it included evidence of the charged offense.[209] Huddleston was charged with possessing and selling

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the defendant had been involved. *Id.* at 589–90. Amazingly, it said that "the lack of direct evidence" that the defendant killed them and his "apparent lack of direct culpability" weighed in favor of admissibility. *Id.* at 589.

206 *Huddleston*, 485 U.S. at 690–91. The Court added, "[i]ndividual pieces of evidence, insufficient in themselves to prove a point, may in cumulation prove it. The sum of an evidentiary presentation may well be greater than its constituent parts." *Id.* at 691 (quoting Bourjaily v. United States, 483 U.S. 171, 179–80 (1987)).

207 *See* State v. Jackson, 498 P.3d 788, 803 (Or. 2021) ("[T]he doctrine of chances operates at the level of the entire group of events, and not the level of the individual events within the group. Ruling out random chance as the explanation for all four events in the group does not rule out or even diminish random chance as the explanation for any one of the four events. Each one of the charged acts is only one event in the group. At most, the doctrine of chances allows a factfinder to infer that random chance cannot explain one or some events in the group, without identifying which events can be explained by random chance and which cannot.").

208 Even if such evidence could legitimately tend to prove a defendant's guilt without violating Rule 404(b), a court would still have to balance the probative value of the evidence for such a legitimate use against the danger that the jury will improperly consider it as evidence of the defendant's character. *See* FED. R. EVID. 403 (providing that evidence is inadmissible if its probative value is substantially outweighed by the danger of unfair prejudice).

209 *Huddleston*, 485 U.S. at 690–91.

stolen videocassette tapes.[210] To prove he knew the tapes were stolen, the prosecution offered evidence of two other instances in which he sold property—televisions and appliances—to merchants for well under market price.[211] In determining for conditional relevancy purposes whether there was sufficient evidence to show that the television sets were stolen, *Huddleston* said the trial court must consider as part of "all evidence" the defendant's sale of the videotapes.[212] In other words, evidence that the defendant knew the videocassettes were stolen—the charged offense—must be considered in deciding whether the defendant knew the televisions were stolen, from which jurors could then infer the defendant knew the videocassettes were stolen.

When there is only one other act, however, using the charged offense to prove that the other act was itself criminal requires forbidden propensity reasoning. A habeas case, *Miller v. Baldwin*,[213] illustrates the problem. Miller was charged with murdering his two wives, five years apart. The women had disappeared "under similarly suspicious circumstances."[214] Miller moved to sever the cases, arguing that, with regard to each alleged murder, evidence of the other wife's disappearance would be inadmissible.[215]The Oregon trial court disagreed, finding that if the cases were tried separately, the evidence would be admissible under the doctrine of chances.[216] The Ninth Circuit affirmed. "It is a permissible inference, referred to as the 'doctrine of chances,' to consider two otherwise independent events that, taken together, are unlikely to be coincidental. That differs from the inference covered by the character evidence rule, which prohibits inferring a defendant's guilt based on an evil character trait."[217]

There was, therefore, no need to sever the murder charges because if Miller had been put on trial solely for the murder of Wife B, evidence of Wife A's disappearance would have been admissible, and vice versa. In a trial for, say, the murder of Wife B, evidence of her death would,

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210 *Id.* at 682.

211 *Id.* at 683–84.

212 *Id.* at 690–92.

213 723 F. App'x 408 (9th Cir. 2018).

214 *Id.* at 409. Although the Ninth Circuit does not describe the similarities, the district court opinion does. Miller v. Baldwin, No. 96-cv-00114, 2016 WL 3951394, at *6 (D. Or. Apr. 7, 2016). The details are reminiscent of Felix Vail and his missing companions. There is no state appellate opinion. The Oregon Court of Appeals affirmed Miller's conviction without opinion, State v. Miller, 888 P.2d 605 (Or. Ct. App. 1994), and the state supreme court denied review, State v. Miller, 891 P.2d 659 (1995).

215 *Miller*, 723 F. App'x at 410.

216 *Id.* at 410–11.

217 *Id.* at 410 (quoting Estelle v. McGuire, 502 U.S. 62, 69 (1991)).

through the doctrine of chances, provide sufficient evidence to meet the conditional relevancy standard and authorize admission of evidence of Wife A's disappearance. Having thus "established" that Wife A had been murdered, the prosecution could urge the jury to infer that Wife B was murdered. In other words, the charged offense (Wife B's death) may be used to prove that the uncharged act (Wife A's death) was a murder so that the jury can then infer Wife B was murdered.

On its face, the recursive nature of this form of proof should be troubling.[218] Worse, it works only through propensity reasoning. If Miller had nothing to do with Wife A's disappearance, her disappearance does not tend to prove that he murdered Wife B. For Wife A's death to be relevant, therefore, the jury must be able to infer that Miller killed her. The only way for the jury to do that, however, is through a propensity inference: if Miller committed the charged offense (Wife B's murder), he killed Wife A. To the extent *Huddleston* authorizes the charged crime to be used to meet the conditional relevancy standard analysis when there is only one piece of other-act evidence, it runs afoul of the character-evidence rule.[219]

3. Summary

Courts sometimes erroneously invoke the doctrine of chances to justify the admission of other-acts evidence where the evidence is

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218 *See* People v. Albertson, 145 P.2d 7, 22 (Cal. 1944) (warning about the "vicious circle" that results when "proof of the crime charged is used to bolster up the theory or foster suspicion in the mind that the defendant must have committed the prior act, and the conclusion that he must have committed the prior act is then used in turn to strengthen the theory and induce the conclusion that he must also have committed the crime charged"). *Albertson* did not mention the doctrine of chances, but a more recent California court quoted *Albertson* in rejecting a similar use of the doctrine of chances. In *People v. Winkler*, the defendant was charged with murdering his third wife in 2012 by stabbing her with a pair of scissors; he claimed he acted in self-defense. 271 Cal. Rptr. 3d 88, 96–100 (Ct. App. 2020). The prosecution offered evidence about the 1999 death of the defendant's second wife. *Id.* at 102–09. She died while they were camping in a national forest. *Id.* at 103–07. The defendant's story was that he had been stung by a bee and had an allergic reaction. *Id.* at 103–08. As his wife rushed him to the hospital, she lost control of her pickup truck. *Id.* The defendant claimed he was somehow ejected from the truck before it crashed and burst into flames. *Id.* at 103–08. Local investigators ruled his wife's death an accident, *id.* at 117, and the defendant collected more than a million dollars on life insurance policies he had taken out in his wife's name earlier that year, *id.* at 106. The court held that evidence of the second wife's death was inadmissible under the doctrine of chances. *Id.* at 133–39.

219 Although judges may ignore the rules of evidence (except for the privilege rules) in making preliminary admissibility calls under FED. R. EVID. 104(a), it is up to jurors to decide the relevancy of evidence admitted under FED. R. EVID. 104(b). Jurors may not draw inferences forbidden by the rules of evidence.

independently admissible for one of the true nonpropensity purposes listed in Rule 404(b). For one set of admissibility questions—conditional relevancy determinations—the doctrine works analytically without a propensity inference. But that does not mean the evidence is admissible. Proof that a defendant committed one or more of the other acts is admissible only if it tends to prove the defendant's guilt without requiring the jury to draw an inference about the defendant's character. And, despite its proponents' claims, the doctrine of chances typically requires a propensity inference. Finally, even with respect to conditional relevancy determinations, when there is only one other act, using the charged offense to prove that the other act was itself criminal requires forbidden propensity reasoning.

III. TWO UNDERLYING PROBLEMS AND ALTERNATIVE ANALYTICAL APPROACHES

Seductions often succeed because the seducer's target, at some level, wants to be seduced. Two underlying problems with the character-evidence rule help explain why—despite its analytical flaws—so many courts and commentators want to believe in the doctrine of chances. First, the character-evidence rule is based on a judgment about the relative probative value and unfair prejudice of other-acts evidence, a judgment that is often wrong. Second, although the character-evidence rule bans other-acts evidence whose probative value flows from an inference about the defendant's character, no one really knows what "character" means. An examination of each of these problems gives rise to an alternative analytical approach.

A. *The Categorical Balancing Problem*

The character-evidence rule is premised on a judgment that the unfair prejudice associated with a category of evidence—other-acts evidence whose probative value flows from a character inference—outweighs its probative value.[220] In many instances, however, that categorical judgment is clearly wrong.[221] *Woods*, *Mardlin*, and *Vail* provide three examples. No one doubts that the probative value of the six

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220 *See* IMWINKELRIED & LAVE, *supra* note 15, § 1:3; GRAHAM, JR. & BLINKA, *supra* note 28, § 5239; Park, *supra* note 122, at 720–25, 745–47. This judgment extends also to more general proof of character, such as reputation and opinion testimony. *See* FED. R. EVID. 404(a), 405(a).

221 Goode, *supra* note 161, at 712–15.

prior deaths, four other fires, or two subsequent (apparent) murders in those cases, respectively, outweighs any danger of unfair prejudice they pose. These three cases are not outliers. And the case law is rife with instances in which courts, intuiting that the other-acts evidence is more probative than prejudicial, admit the evidence even though its probative value flows only from a character inference.[222] Courts do this either by carelessly invoking one or more of the permissible purposes for other-acts evidence listed in Rule 404(b)(2) or by simply denying that the evidence requires a propensity inference.[223] This is understandable. A categorical rule like the character-evidence rule is designed to sacrifice accuracy in a given case to achieve optimal results in the long run of cases. Not surprisingly, many trial judges are more concerned with making admissibility rulings that promote a just result in the case immediately before them.[224] The doctrine of chances offers them an easy way to do what they instinctively want to do: admit highly probative other-acts evidence despite a character-evidence rule objection. Courts are quite willing to be seduced.

In one class of cases—where the actus reus is established and the only real issue in the case is mens rea—a strong argument can be made that the character-evidence rule's categorical judgment about the relative balance between probative value and unfair prejudice is itself categorically wrong. In such cases, the probative value is typically robust: The inferential leap from the other-acts evidence to a conclusion about the defendant's state of mind is relatively short.[225] Moreover, the need for such proof is particularly acute, especially when the actus reus may be accompanied by an innocent state of mind or a lesser culpable mental

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222 *See, e.g.*, Capra & Richter, *supra* note 31, at 778; David P. Leonard, *Character and Motive in Evidence Law*, 34 LOY. L.A. L. REV. 439, 490–97 (2001); Morris, *supra* note 33, at 190; Roger C. Park & David P. Bryden, *The Twenty-Second Annual Kenneth J. Hodson Lecture: Uncharged Misconduct Evidence in Sex Crime Cases: Reassessing the Rule of Exclusion*, 141 MIL. L. REV. 171, 177 (1993).

223 Bavli, *supra* note 126, at 126; Goode, *supra* note 161, at 724–60.

224 We can expect that jurors who decided the case would likely be upset to learn that highly probative other-acts evidence had been kept from them. *See* D. GRAHAM BURNETT, A TRIAL BY JURY 70–71, 175–76 (2001) (expressing frustration, as a juror, at the jury's inability to hear evidence about the defendant's and victim's background and describing his reaction upon learning after the trial about the victim's past act). In highly publicized cases, the exclusion of such evidence can cause a public uproar. Indeed, the public reaction to the exclusion of evidence that an (acquitted) sexual-assault defendant (a nephew of then-Senator Edward Kennedy) had committed three previous sexual assaults prompted Congress to create new exceptions to the character-evidence rule in sexual assault and child molestation cases. FED. R. EVID. 413–415; *see* Roger C. Park, *The Crime Bill of 1994 and the Law of Character Evidence: Congress Was Right About Consent Defense Cases*, 22 FORDHAM URB. L.J. 271, 272 (1995).

225 MUELLER & KIRKPATRICK, *supra* note 27, § 4:34.

state than intent.[226] This suggests an alternate route for admitting other-acts evidence in some of the cases where courts now cling to the doctrine of chances. I have elsewhere advocated for a true exception to the character-evidence rule that would apply when the actus reus is established and state of mind is truly a controverted issue.[227] In *Murillo*, for example, the defendant admitted to fatally shooting his wife; his defense was that he did so accidentally.[228] To prove the defendant's criminal intent, the prosecution introduced evidence that the defendant fatally shot his first wife and claimed that it too was an accident.[229] Invoking the doctrine of chances, the court upheld admission of this evidence.[230] If we had a true exception to the character-evidence rule for this class of cases, courts could simply admit the evidence for its propensity purpose. There would be no need to invoke the doctrine of chances[231] and pretend that only nonpropensity reasoning was involved.[232]

This state-of-mind exception would apply only when state of mind really is an issue in the case. One of the listed permissible purposes for other-acts evidence is to prove "lack of accident," but that often overlaps

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226 22B WRIGHT & GRAHAM, *supra* note 28 § 5239, at 106; Capra & Richter, *supra* note 31, at 807 (noting that "proof of state of mind is elusive"); *see* Huddleston v. United States, 485 U.S. 681, 685 (1988) ("Extrinsic acts evidence may be critical to the establishment of the truth as to a disputed issue, especially when that issue involves the actor's state of mind and the only means of ascertaining that mental state is by drawing inferences from conduct.").

227 Goode, *supra* note 161, at 802–10. The exception I proposed would also reach cases where the actus reus is controverted and the defendant is unwilling to concede that if the actus reus is established, the state of mind is also established.

228 State v. Murillo, 509 S.E.2d 752 (N.C. 1998), discussed *supra* at text accompanying notes 73–75.

229 *Murillo*, 509 S.E.2d at 764–65.

230 *Id.*; *see also* People v. Robbins, 755 P.2d 355, 361–62 (Cal. 1988) (invoking the doctrine of chances to uphold the admission of other-acts evidence to prove that defendant, who admitted picking up, sodomizing, and killing a six-year-old, initially picked up the child with intent to engage in lewd and lascivious conduct, which was necessary to establish the kidnapping charge and to trigger the special-circumstance provision of the felony-murder statute).

231 Recall that Wigmore contended only that the doctrine of chances could be used to prove a defendant's state of mind. *See generally* STEPHEN A. SALTZBURG ET AL., 2 FEDERAL RULES OF EVIDENCE MANUAL § 404.03[2][gg] Lexis+ (database updated Dec. 2025) (listing numerous cases in which actus reus is established and the only issue is mens rea and where courts admit other-acts evidence without invoking the doctrine of chances).

232 Even without such an exception, courts profligately admit other-acts evidence to prove a defendant's state of mind. *See* Capra & Richter, *supra* note 26, at 806 (noting that intent "has been one of the most abused 'proper purposes' under existing precedent"); Imwinkelried, *The Use of Evidence*, *supra* note 18, at 583–84; David A. Sonenshein, *The Misuse of Rule 404(b) on the Issue of Intent in the Federal Courts*, 45 CREIGHTON L. REV. 215, 218 (2011). My proposal is designed to limit such use of other-acts evidence to cases where state of mind actually is in dispute. Goode, *supra* note 145, at 807–09.

with proving intent. When Murillo admitted to shooting his wife but claimed it was an accident, the court admitted Murillo's other act to prove lack of accident, that is, to prove that Murillo intentionally shot his wife.[233] Too often, however, courts have twisted "lack of accident" from a basis for proving mens rea to a means of establishing the actus reus. For example, in *Henthorn*, the defendant "adamantly denied" he pushed his wife off a cliff, contending that she slipped and fell to her death while "trying to get the perfect photograph."[234] When the court admitted evidence of Henthorn's first wife's death to prove lack of accident,[235] the evidence was not offered to rebut a claim that Henthorn acted accidentally.[236] It was offered to prove that his wife did not act accidentally and cause her own death. That is, the evidence was offered to prove the actus reus of the crime—that Henthorn pushed his wife off the cliff. Courts frequently invoke the doctrine of chances to admit other-acts evidence in such "lack of accident" scenarios.[237] Those cases would not fall within my true state-of-mind exception.

Nor would other types of cases where courts, citing the doctrine of chances, admit other-acts evidence to prove intent where intent is not an issue. In *State v. Monroe*, for example, the defendant was charged with strangling an elderly man in an area known as a haunt for "derelicts and winos."[238] He admitted killing the man but claimed self-defense. The prosecution offered evidence that the defendant also admitted strangling another elderly man to death in the same area but again claimed self-

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233 *Murillo*, 509 S.E.2d at 764; *see also* State v. Stager, 406 S.E.2d 876, 890–95 (N.C. 1991) (upholding admission of evidence that defendant's first husband also died from a gunshot wound that defendant claimed was accidental to show intent and lack of accident in prosecution for the shooting death of her second husband); State v. Johns, 725 P.2d 312, 322–27 (Or. 1986) (upholding admission of evidence that defendant had previously assaulted his former wife with a firearm to prove intent and lack of accident where defendant claimed his current wife's shooting death was accidental); Duntsch v. State, 568 S.W.3d 193, 221–26 (Tex. App. 2018) (upholding admission of evidence of defendant surgeon's prior surgeries and adverse outcomes as proof of knowledge where defendant disputed whether he acted with the charged culpable mental state).

234 Appellant's Opening Brief at 3, United States v. Henthorn, 864 F.3d 1241 (10th Cir. 2017) (No. 15-1490), 2016 WL 392291, at *3, discussed *supra* notes 79–84 and accompanying text.

235 *Henthorn*, 864 F.3d at 1256.

236 If asked, he would doubtlessly have been willing to stipulate that if the jury found that he pushed her off the cliff, he did so with the intent to kill her.

237 *See, e.g.*, People v. Spector, 128 Cal. Rptr. 3d 31, 39 (Ct. App. 2011) (admitting evidence that the defendant assaulted five other women to rebut defendant's claim that the victim shot herself, either accidentally or deliberately); State v. Peterson, 634 S.E.2d 594, 609–10 (N.C. Ct. App. 2006) (invoking the doctrine of chances to admit evidence that a close acquaintance had died after falling down a staircase to prove that defendant's wife did not die from an accidental fall down a staircase), *aff'd*, 652 S.E.2d 216 (N.C. 2007) (affirming admission of the evidence without invoking the doctrine of chances).

238 364 So. 2d 570, 571 (La. 1978).

defense.[239] The Louisiana Supreme Court, after quoting Wigmore on the doctrine of chances, held the evidence admissible to prove the defendant's intent.[240] But the defendant's intent to kill was not in question. The defendant admitted he deliberately strangled his victim. In this, as in most self-defense cases, the real question concerns the victim's actions. Did the victim act in such a manner as would cause a person to reasonably believe that it was necessary to use deadly force?[241] In a raft of other cases, courts do not even pretend that the other-acts evidence is being offered to prove the defendant's state of mind. Ignoring the propensity inferences needed to support an inference of guilt, they simply use the doctrine of chances to admit other-acts evidence to prove, among other things, that the defendant murdered the victim,[242] sexually assaulted an adult[243] or abused a child,[244] made false statements,[245] committed arson,[246] indecently exposed himself,[247] or tampered with a witness.[248]

In many of these cases, the probative value of the other-acts evidence likely outweighed its prejudicial effect. But except for the cases in which the actus reus is established and the defendant's state of mind is truly an issue, it is impossible to categorically conclude that the probative value of the other-acts evidence outweighs its prejudicial effect. These other cases run the gamut of the criminal law. They all require propensity reasoning. If they are all exempt from the character-evidence rule, there is no character-evidence rule. But there still may be a way to justify the admission of other-acts evidence in some of these cases. That requires a look at the second underlying problem with the character evidence rule.

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239 Id. at 571–72.

240 *Id.* at 572–73; *see also* People v. Demetrulias, 137 P.3d 229, 240–41 (Cal. 2006) (quoting Wigmore and admitting, to prove criminal intent, evidence that a murder defendant claiming self-defense had killed another man the same night and claimed self-defense there as well).

241 *See generally* 2 WAYNE R. LAFAVE, SUBSTANTIVE CRIMINAL LAW §§ 10.4(a)–(c) (3d ed.), Westlaw (database updated Oct. 2025) (explaining that deadly force in self-defense is justified only when a defendant reasonably believes it is necessary to prevent unlawful death or serious bodily harm).

242 *E.g.*, People v. Lisenba, 94 P.2d 569, 579–82 (Cal. 1939).

243 *E.g.*, People v. Everett, 250 P.3d 649, 657–58 (Colo. App. 2010).

244 *E.g.*, Morgan v. State, 692 S.W.2d 877, 881–82 (Tex. Crim. App. 1985).

245 *E.g.*, De La Paz v. State, 279 S.W.3d 336, 347–48 (Tex. Crim. App. 2009).

246 *E.g.*, People v. Mardlin, 790 N.W.2d 607, 614 (Mich. 2010).

247 *E.g.*, State v. Richins, 496 P.3d 158, 168–70 (Utah 2021) (public lewdness), *abrogated by* State v. Green, 532 P.3d 930 (Utah 2023).

248 *E.g.*, United States v. Queen, 132 F.3d 991, 996–97 (4th Cir. 1997).

B. *There Is No Definition of Character*

The character-evidence rule does not bar all other-acts evidence whose probative value flows from a propensity inference. It bars only evidence that requires a *character*-propensity inference.[249] Evidence of a person's habit, for example, is expressly made admissible to prove the person acted in accordance with that habit; that is, as propensity evidence.[250] Since *character*-propensity evidence is barred and *noncharacter*-propensity evidence is allowed, it seems obvious that a rational application of the character-evidence rule demands an understanding of what "character" is. Unfortunately, as I have discussed elsewhere, no viable definition of character can be found in the rules or court decisions.[251] I have offered two ways of understanding what should and should not count as character.[252] This would open the door to some other-acts evidence whose admission the doctrine of chances cannot justify.

Neither personal attitudes (for example, that a person is a racist or sexist) nor medical or psychological conditions should be classified as character.[253] Munchausen Syndrome by Proxy (MSBP) is a recognized psychological condition.[254] As described by one court, its symptoms may include a caregiver's falsifying or inducing illness in a child to gain attention and sympathy.[255] Martha Woods is now believed to have suffered from MSBP.[256] But that never came up at her trial; MSBP was not formally recognized until 1977, several years after she was convicted.[257] Were she to be tried today, and were a psychological condition not considered character, evidence of her long-standing MSBP could be

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249 FED. R. EVID. 404(b)(1) (prohibiting other-acts evidence if offered "to prove a person's *character* in order to show that on a particular occasion the person acted in accordance with the *character*" (emphasis added)).

250 *See* FED. R. EVID. 406. For a compendium of corresponding state rules, see 23 VICTOR GOLD, FEDERAL PRACTICE AND PROCEDURE § 5271 (2d ed.), Westlaw (database updated Apr. 2026).

251 *See* Goode, *supra* note 161, at 715–18.

252 *See id.* at 773–801.

253 *Id.* at 781–87.

254 It is now called Factitious Disorder Imposed on Another (FDIA). AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 325 (5th ed. 2013).

255 Austin v. State, 222 S.W.3d 801, 804 (Tex. App. 2007).

256 MARISSA A. HARRISON, JUST AS DEADLY: THE PSYCHOLOGY OF FEMALE SERIAL KILLERS 60–61 (2023); UNMASKING A MURDERER: *Martha Wood [sic] and the Kids She Killed: Munchausen by Proxy Before It Had a Name* (Apple Podcasts, Aug. 27, 2021).

257 HARRISON, *supra* note 256, at 60.

admitted.[258] Similarly, in an arson case such as *United States v. Gant*,[259] evidence that the defendant suffers from pyromania would be admissible.

Removing personal attributes and medical and psychological conditions from the ambit of character is relatively easy. More challenging is figuring out whether multiple instances of a very specific type of conduct that fails to qualify as "habit" should be considered "character." Evidence law has long been content to live simply with a dichotomy between character and habit evidence.[260]

The distinction between the two rests on the specificity of the conduct.[261] Generalized descriptions of disposition, such as honesty and peaceableness (and their opposites, dishonesty and violence) constitute character traits.[262] Habit is far more specific and "describes one's regular response to a repeated specific situation," like routinely going down a particular staircase two steps at a time.[263]

The problem is that generalized descriptions of disposition and a regular response to a repeated specific situation mark two ends of a broad spectrum. A wide array of conduct falls between the two. Evidence that a bank robbery defendant committed two previous bank robberies operates in a more specific way than does evidence that the defendant is a generally dishonest or violent person. But evidence of the other two bank robberies is considered a paradigmatic form of inadmissible character evidence. Other-acts evidence may operate still more specifically. In the famous

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258 On the civil side, the doctrine of chances sometimes pops up in discrimination cases. *See* Lisa Marshall, *The Character of Discrimination Law: The Incompatibility of Rule 404 and Employment Discrimination Suits*, 114 YALE L.J. 1063, 1081–82 (2005). Removing personal attitudes from the ambit of character would mean that other acts of racism, for example, could be proved to demonstrate a discrimination defendant is a racist, from which a jury might infer the defendant acted with discriminatory intent on the occasion in question.

259 721 F.3d 505 (8th Cir. 2013). In Gant's trial on three counts of arson, the prosecution sought to offer evidence of seventeen previous fires he had set. *Id.* at 507–08. The trial court limited the evidence to four other fires set by defendant. *Id.* at 508. Witnesses testified that Gant got "[k]ind of excited" when discussing the fires, and the evidence apparently did not show the defendant profited financially from any fires. *Id.* at 509 (alteration in original). In other words, the evidence tended to show that Gant started fires because of pyromania, and not for financial benefit.

260 GLEN WEISSENBERGER & JAMES J. DUANE, WEISSENBERGER'S FEDERAL EVIDENCE § 404.3 (7th ed. 2011) ("While gradations of gray undoubtedly exist between these polar concepts, the law requires designation of the propensity as either character or habit to determine whether Rule 404 or Rule 406 applies.").

261 Crawford v. Tribeca Lending Corp., 815 F.3d 121, 125 (2d Cir. 2016). Habit evidence is considered substantially more probative of how a person behaved on a given occasion than is character. *See* FED. R. EVID. 406 advisory committee's note to 2011 amendment ("Agreement is general that habit evidence is highly persuasive as proof of conduct on a particular occasion.").

262 *See* FED. R. EVID. 406 advisory committee note on proposed rules (citing 1 MCCORMICK ON EVIDENCE § 162 (John W. Strong ed., 1954)).

263 *See id.*

Brides in the Bath case, George Smith wooed and entered into bigamous marriages with three different women in three years.[264] He married each under a different name, made financial arrangements from which he would profit, and ensured that each wife executed a will in his favor. Within a week of each wife's executing her will, he discovered—or so he said—that she had accidentally drowned in her bathtub.[265] This conduct, although very specific, does not qualify as a habit.[266] But I have argued that it should not be considered character evidence. At some point along the spectrum from evidence of a general disposition to evidence of habit, the categorical balance of probative value and unfair prejudice tips in favor of probative value. Determining just where this tipping point occurs requires a lengthy discussion beyond the scope of this Article, one that I have undertaken elsewhere.[267] The point here is simply that if a defendant's other acts fall far enough along the spectrum, they should not be considered evidence of the defendant's character. Their probative value would flow from propensity reasoning—because the defendant committed the other acts, he committed the charged act. But it would not be forbidden *character*-propensity reasoning. The analysis I have laid out elsewhere led me to conclude that the Brides in the Bath case provides an example of noncharacter other-acts evidence.[268] Of the three cases with which this Article starts, the other-acts evidence in *Woods* would likewise qualify as noncharacter evidence,[269] but the evidence in *Vail* and *Mardlin* would not.[270] Evidence that, over eight years, the defendant in *People v. Catlin*[271] killed his fourth and fifth wives and his mother by poisoning them with paraquat would qualify as noncharacter evidence. In contrast, the defendant's conduct in *Henthorn*—killing two wives in markedly different ways—would not.[272] Defining character would allow courts to determine the admissibility of other-acts evidence in an analytically

264 R. v. Smith [1915] 11 Cr. App. R. 229 (Eng.); *see supra* note 152.

265 Sullivan, *supra* note 33, at 29–30; *see* WATSON, *supra* note 152, at 1–32.

266 In determining whether something qualifies as a habit, courts look at the specificity of the conduct, how frequently and regularly it occurs, and the extent to which it is automatic or unreflective. MUELLER & KIRKPATRICK, *supra* note 27, § 4:46. While Smith's behavior was probably specific enough, it was not frequent or regular enough and was hardly automatic or unreflective.

267 Goode, *supra* note 161, at 778–79, 787–93, 796–801.

268 *Id.* at 800.

269 *Id.* The conduct in *Woods* is specific enough to justify classifying it as noncharacter. This is a separate argument for admissibility than the one made earlier that evidence that Woods suffered from Munchausen Syndrome by Proxy should not be considered a character trait. *See supra* notes 152–157 and accompanying text.

270 Goode, *supra* note 161, at 799–800.

271 26 P.3d 357, 367–71 (Cal. 2001).

272 *See supra* notes 78–83 and accompanying text.

coherent manner. And it would authorize courts to admit some of the other-acts evidence they have been admitting under the seductive doctrine of chances.

CONCLUSION

In *Julius Caesar*, Cassius observed, "For who so firm that cannot be seduced?"[273] Despite the doctrine of chances' overwhelmingly favorable reception among courts and scholars, it ill serves the law of evidence. The doctrine of chances is seductive because it pretends to be what it really is not—a doctrine. It is seductive because its alluring promise of nonpropensity reasoning sounds convincing, even though it is typically false. And it is seductive because its targets—judges and commentators—want, at some level, to be seduced. They crave a way to admit what all would agree is highly probative evidence and so are willing to be deceived into thinking the character-evidence rule does not apply. It is time to take heed of Cassius's words and give the doctrine of chances back to the mathematicians.

273 WILLIAM SHAKESPEARE, JULIUS CAESAR act 1, sc. 2, l. 324.