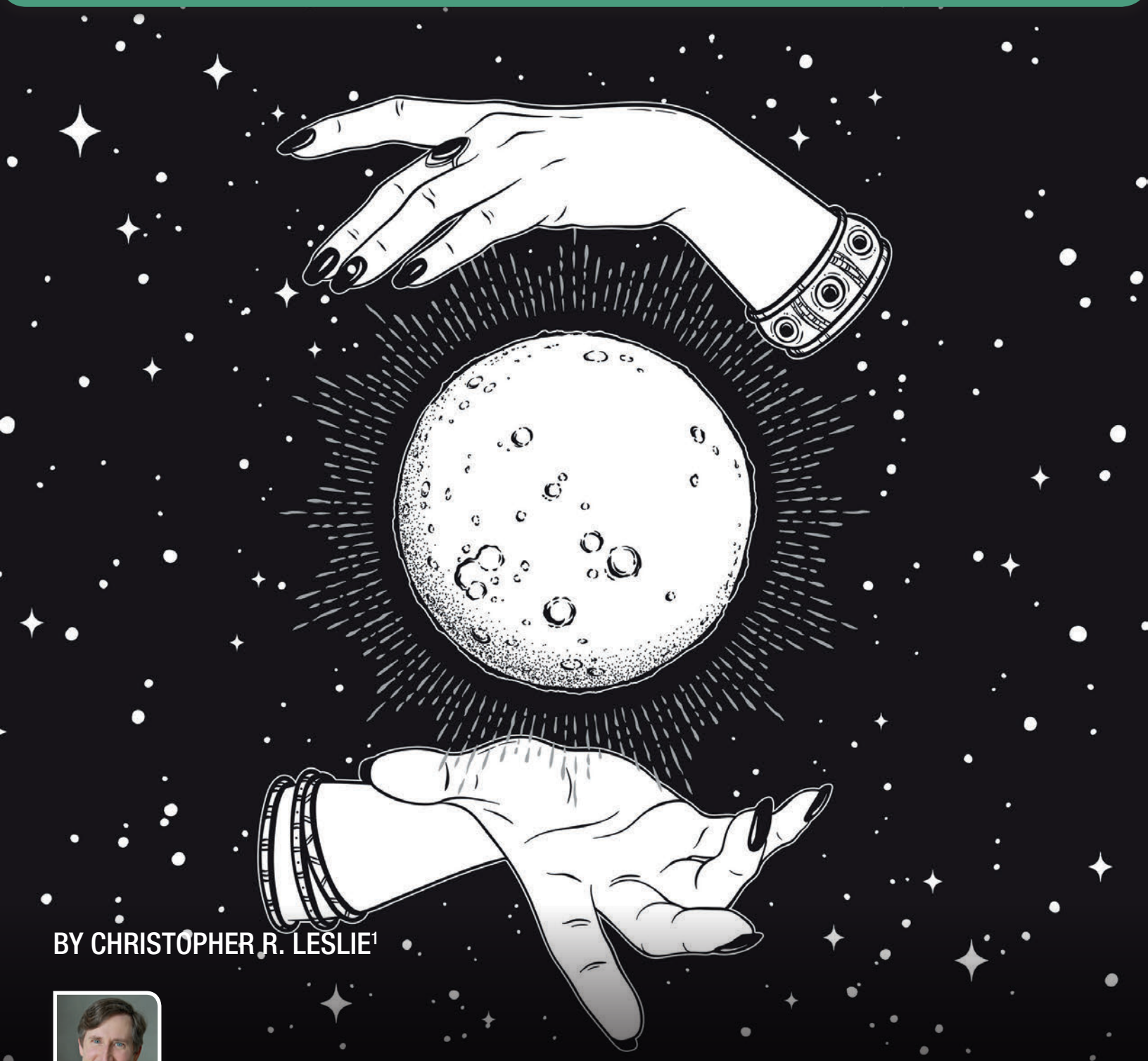
BEHAVIORAL ECONOMICS AND ANTITRUST LAW: HINDSIGHT BIAS



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I. INTRODUCTION

Predicting what the probable future looked like in the past from the vantage point of the known future is fraught with peril. If the factfinder knows what actually happened, this information will influence the calculation of what the probabilities were before it actually happened. The task of estimating past probabilities of something happening when one knows what has actually happened is so notoriously difficult, that it has its own designation: the risk of hindsight bias.

The modern field of study into hindsight bias was launched by Baruch Fischhoff.[2] Fischhoff provided his research subjects with a primer on the 1810s conflict between British forces and Nepalese Gurkhas near northern India. He suggested four possible outcomes: British victory, Gurkha victory, a peace settlement, and a military stalemate with no peace settlement. The subjects were then divided into five groups. One group was given no information about the ultimate outcome of the conflict. Subjects in each of the remaining four groups were told that one of the four outcomes had, in fact, occurred. The subjects were then asked to assess the probability of each of the outcomes at the time that the conflict began. On average, the members of each group thought that the outcome that they had been told occurred was the most likely outcome *a priori*, even though they had been instructed to ignore what they "knew" about the ultimate outcome. Fischhoff's studies effectively created the field of research on hindsight bias.

The potential for hindsight bias exists whenever a person is tasked with determining the *ex ante* probability of an event after the fact. If people learn that the event did not, in fact, occur, they are more likely to believe that the *before-the-fact* probability of the event occurring was relatively low. Conversely, if people learn that the event did later occur, they are more likely to say that the event was highly probable – perhaps inevitable – all along. This phenomenon is hindsight bias, the "using [of] known outcomes to assess the predictability at some earlier time of something that has already happened."[3] Because of hindsight bias, "[p]eople overstate their own ability to have predicted the past and believe that others should have been able to predict events better than was possible."[4]

Once people learn the actual outcome of an event or a plan, they cannot replicate the uncertainty that existed before they knew the outcome.[5] Hindsight bias makes outcomes seem inevitable in retrospect and "people consistently exaggerate what could have been anticipated in

2 Baruch Fischhoff, *Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgment Under Uncertainty,* 1 J. Exp. Psych. 288 (1975).

3 Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Inside the Judicial Mind*, 86 Cornell L. Rev. 777, 803 (2001).

4 *Id.* at 799.

5 Jennifer D. Campbell & Abraham Tesser, *Motivational Interpretations of Hindsight Bias: An Individual Difference Analysis*, 41 J. Personality 605, 605 (1983).

foresight."[6] Hindsight bias has been well documented in many areas of law.[7] Indeed, hindsight bias can affect all of the major participants in the litigation process. Witnesses predicting probability could be influenced by hindsight bias.[8] Hindsight bias prevents jurors from properly calculating probabilities[9] and may make "juries believe that litigants should have predicted events that no one could have predicted…"[10] And several studies have shown judges to be prone to hindsight bias in several contexts.[11]

II. HINDSIGHT BIAS IN ANTITRUST JURISPRUDENCE

This essay discusses how hindsight bias can affect decisions in three areas of antitrust law: attempted monopolization, predatory pricing, and anticompetitive conspiracies.

A. Attempted Monopolization

In *Spectrum Sports, Inc. v. McQuillan*,[12] the Supreme Court created a three-element test for attempted monopolization: "(1) … the defendant has engaged in predatory or anticompetitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power."[13] The third element focuses on probability because, by definition, attempted monopolization is "an unsuccessful attempt to achieve monopolization."[14] This dangerous probability of success must be calculated at the time that the defendant began engaging in the challenged anticompetitive conduct.[15] One reason for analyzing the dangerous probability element at the time of the anticompetitive conduct – instead of in retrospect – is to avoid the possibility of hindsight bias. For example, the Fifth Circuit has explained that "[w]hen evaluating the element of dangerous probability of success, we do not rely on hindsight but examine the probability of success at the time the acts occur."[16]

Contrary to the rule that the dangerous probability of monopolization element should be evaluated as of the time when the defendant engaged in anticompetitive conduct, several courts have invited hindsight bias by examining the defendant's market performance in the years after its anticompetitive conduct. Most notably, the Seventh Circuit held that the defendant's "subsequent market performance" is relevant to determining whether defendants in attempted monopolization cases ever had a dangerous probability of monopolization.[17] Several courts have since relied on the Seventh Circuit precedent to hold that in calculating the probability that the defendant's anticompetitive conduct would result in monopolization, factfinders may consider "the defendant's subsequent market performance," among other variables.[18]

Despite courts claiming that they will not treat subsequent market performance as dispositive, attempted monopolization jurisprudence is littered with examples of courts falling victim to hindsight bias. In *Lektro-Vend Corp. v. Vendo Corp.*,[19] for example, the plaintiff challenged the defendant's imposition and enforcement of illegal restrictive covenants as an attempt to monopolize the relevant market of coin-operated vending machines for the sale of food, beverages, and cigarettes in the United States. Although the challenged conduct occurred in 1959, the court

6 Fischhoff, *supra* note 3 at 341.

7 Leslie, *Hindsight Bias, supra* note 1 at 1535-39 (collecting authorities).

8 Scott A. Hawkins & Reid Hastie, *Hindsight: Biased Judgments of Past Events after the Outcomes Are Known*, 107 Psych. Bull. 311, 318 (1990).

9 Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 Stan. L. Rev. 1471, 1522 (1998).

10 Guthrie, Rachlinski & Wistrich, *supra* note 3 at 780 (citations omitted).

11 *Id.* at 803.

12 506 U.S. 447 (1993).

13 *Id.* at 456.

14 *Multiflex, Inc. v. Samuel Moore & Co.*, 709 F.2d 980, 990 (5th Cir. 1983); *Taylor Publ'g Co. v. Jostens, Inc.*, 216 F.3d 465, 474 (5th Cir. 2000) ("[A]ttempted monopolization claim necessarily involves conduct which has not yet succeeded....").

15 See Leslie, *Hindsight Bias, supra* note 1 at 1542-43 (collecting cases).

16 *United States v. American Airlines, Inc.*, 743 F.2d 1114, 1118 (5th Cir.1984).

17 *Lektro-Vend Corp. v. Vendo Co.*, 660 F.2d 255, 270-71 (7th Cir. 1981).

18 See, e.g. *G. Heileman Brewing Co. v. Anheuser-Busch Inc.*, 676 F. Supp. 1436, 1474 (E.D. Wis. 1987), aff'd, 873 F.2d 985 (7th Cir. 1989).

19 500 F. Supp. 332, 335 (N.D. Ill. 1980), *aff'd sub nom. Lektro-Vend Corp. v. Vendo Co.*, 660 F.2d 255 (7th Cir. 1981).

focused on the defendant's declining market share in the early 1960s through the mid-1970s.[20] In doing so, the district court opined that "rather than speculating as to what would happen in the future (as most courts must of necessity do in evaluating alleged attempts to monopolize), this court has the benefit of observing what actually happened in the marketplace. [The defendant] did not achieve a monopoly or come dangerously close."[21] This is the very definition of hindsight bias: The court used the actual outcome to conclude that the *ex ante* probability of monopolization was impermissibly low. The court said that the defendant's failure was "not dispositive" but then essentially treated it so.[22]

Antitrust opinions exhibit potential hindsight bias in attempted monopolization cases in a number of ways. For example, some courts commit hindsight bias by asking whether any market entry occurred after the defendant began its anticompetitive conduct.[23] More commonly, courts hold that if the defendant's market share decreases after it has begun engaging in anticompetitive conduct, then there cannot have been a dangerous probability of monopolization.[24] Many courts have treated the defendant's subsequent loss of market share as sufficient to defeat an attempted monopolization claim.[25] Other courts commit hindsight bias by focusing on the defendant's market share after antitrust litigation is filed.[26] It is not uncommon for courts to invoke a defendant's post-complaint market share to assert that pre-complaint it had no probability of monopolizing the market.[27] Such use of post-conduct evidence to calculate *ex ante* probabilities is the essence of hindsight bias.

Courts also routinely hold that a plaintiff's attempted monopolization claim must fail as a matter of law if the plaintiff cannot prove that the defendant currently possesses monopoly power.[28] In a similar vein, courts sometimes look at the defendant's market share at the time of the trial in order to hold that no dangerous probability of success existed previously when the defendant engaged in the challenged anticompetitive conduct.[29] Many courts point to a plaintiff's ultimate profitability, success, or survival as proof that the defendant never possessed a dangerous probability of monopolizing the market. For example, the Second Circuit has reasoned that because the plaintiff "has remained an effective competitor" with the defendant despite the latter's exclusionary conduct, the plaintiff's "claim of attempted monopolization is without merit."[30] In some opinions that exhibited hindsight bias, a strong case can be made that the bias led the court to improperly dispose of the case.[31]

B. Predatory Pricing

Hindsight bias in antitrust law is not limited to evaluating the "dangerous probability of success" element of attempted monopolization claims. It also arises in predatory pricing cases. In *Brooke Group v. Brown & Williamson Tobacco Corp.*,[32] the Supreme Court articulated a two-element test for illegal predatory pricing: (1) the defendant is charging a price that is below an "appropriate measure" of its costs;[33] and (2) the defendant had "a dangerous probability[] of recouping its investment in below-cost prices."[34] The probability of recoupment should be determined at the time that the defendant began engaging in below-cost pricing.

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20 *Lektro-Vend Corp.*, 660 F.2d at 270.

21 *Lektro-Vend Corp.*, 500 F. Supp. at 356.

22 *Id.* See Leslie, *Hindsight Bias, supra* note 1 at 1547 (discussing appellate reasoning in *Lektro-Vend Corp.*).

23 *Savory Pie Guy, LLC v. Comtec Indus., Ltd.*, No. 14 CV 7527 (VB), 2016 WL 7471340, at *11 (S.D.N.Y. Dec. 28, 2016).

24 *McGahee v. N. Propane Gas Co.*,658 F. Supp. 189 (N.D. Ga. 1987), rev'd, 858 F.2d 1487 (11th Cir. 1988).

25 *See* Leslie, *Hindsight Bias, supra* note 1 at 1549 (collecting cases).

26 *Nifty Foods Corp. v. Great Atl. & Pac. Tea Co.*, 614 F.2d 832, 841 (2d Cir. 1980).

27 See Leslie, *Hindsight Bias, supra* note 1 at 1550 (collecting cases).

28 *Indiana Grocery Co. v. Super Valu Stores, Inc.*, 864 F.2d 1409 (7th Cir. 1989).

29 *Buehler AG v. Ocrim S.p.A.*, 836 F. Supp. 1305 (N.D. Tex. 1993), *aff'd sub nom.* Buehler AG v. Ocrim SpA, 34 F.3d 1080 (Fed. Cir. 1994); *Deauville Corp. v. Federated Dep't Stores, Inc.*, 756 F.2d 1183 (5th Cir. 1985).

30 *Twin Labs., Inc. v. Weider Health & Fitness*, 900 F.2d 566, 571 (2d Cir. 1990).

31 See Leslie, *Hindsight Bias, supra* note 1 at 1553-54 (discussing *Buehler AG*).

32 509 U.S. 209 (1993).

33 *Id.* at 222-23.

34 *Id.* at 224.

Because the antitrust cause of action for predatory pricing asks factfinders to determine *ex ante* probabilities, it presents a risk of hindsight bias. Courts succumb to hindsight bias when they hold that judges evaluating predatory pricing claims should "explore not only whether recoupment was possible but also whether it in fact occurred."[35] Some federal courts have dismissed predatory pricing complaint that allege a dangerous probability of the defendant controlling long-term prices "but fail[] to allege *actual recoupment* of losses, or any other facts allowing such an inference."[36] Examining the post-predation period invites hindsight bias because "it would be difficult for anyone to conclude both that recoupment had utterly failed and that [during the predation period, the defendant] had been likely to succeed."[37]

C. Anticompetitive Conspiracies

Attempted monopolization and predatory pricing claims are susceptible to hindsight bias, in part, because they require the factfinder to determine *ex ante* probabilities in an *ex post* world. But even antitrust claims that do not require calculating *ex ante* probabilities can induce hindsight bias. Even though a failed anticompetitive conspiracy violates Section One, hindsight bias exists in the evaluation of Section One claims. The progenitor of hindsight bias in Section One jurisprudence is the Supreme Court's decision in *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp*.[38] After describing predatory-pricing conspiracies as irrational – because they require upfront losses with uncertain or unlikely recoupment[39] – and noting the alleged conspiracy had been ongoing for 20 years,[40] the *Matsushita* majority concluded: "The alleged conspiracy's failure to achieve its ends in the two decades of its asserted operation is strong evidence that the conspiracy does not in fact exist."[41] The *Matsushita* rationale has allowed lower courts to hold that if an alleged conspiracy has failed, then it is implausible that the conspiracy ever existed.[42]

III. HOW HINDSIGHT BIAS UNDERMINES/REWRITES ANTITRUST DOCTRINE

When courts succumb to hindsight bias, judges can alter substantive antitrust doctrine. Section Two of the Sherman Act separately condemns a defendant's illegal acquisition and attempted acquisition of monopoly power. In the context of attempt claims, courts recognize that "the Sherman Act's prohibition against attempted monopolization does not require that the attempt in fact ripen into an actual monopoly. It is the attempt which is the offense."[43] Successful monopolization is not part of an attempted monopolization claim; successful monopolization is a separate antitrust cause of action with its own elements.

Hindsight bias changes this dynamic. If courts accept defendants' invitations to review probabilities in hindsight, then the "failure of the alleged monopoly scheme proves there was never any 'dangerous probability' of its success. Such a conclusion would undermine most attempt claims."[44] Examining the would-be monopolist's success or failure in retrospect comes close to eliminating attempted monopolization as an antitrust claim altogether. As the Seventh Circuit correctly observed, "A subsequent failure to achieve monopoly status cannot itself vitiate a claim of attempted monopoly where other evidence substantially supports the attempt without eviscerating the entire attempt offense."[45] In effect, hindsight bias surreptitiously reads the attempted monopolization language out of the Sherman Act altogether.[46] This is a mistake because even

35 *Ashkanazy v. I. Rokeach & Sons, Inc.*, 757 F. Supp. 1527, 1543 (N.D. Ill. 1991) (discussing *Rose Acre*, 881 F.2d at 1403-04).

36 *Edgenet, Inc. v. GS1 AISBL*, 742 F. Supp. 2d 997, 1013 (E.D. Wis. 2010) (dismissing predatory pricing claim for failure to sufficiently plead antitrust injury) (emphasis added).

37 Stephen Calkins, *The October 1992 Supreme Court Term and Antitrust: More Objectivity Than Ever*, 62 Antitrust L.J. 327, 401 (1994).

38 475 U.S. 574 (1986).

39 475 U.S. at 588-89.

40 *Id.* at 591.

41 *Id.* at 592; see also Randolph Sherman, *The* Matsushita *Case: Tightened Concepts of Conspiracy and Predation?*, 8 Cardozo L. Rev. 1121, 1131 (1987).

42 See, e.g. *Williamson Oil Co. v. Philip Morris USA*, 346 F.3d 1287 (11th Cir. 2003). See Leslie, *Hindsight Bias, supra* note 1 at 1563-65 (discussing *Williamson* in detail).

43 *Lektro-Vend Corp. v. Vendo Co.*, 660 F.2d 255, 270-71 (7th Cir. 1981) (*citing Kearney & Trecker Corp. v. Giddings & Lewis, Inc.*, 452 F.2d 579 (7th Cir. 1971)).

44 *White Mule Co. v. ATC Leasing Co. LLC*, 540 F. Supp. 2d 869, 893 (N.D. Ohio 2008).

45 *Lektro-Vend Corp.*, 660 F.2d at 270–71. Unfortunately, the Seventh Circuit went on to say that circuit law did "not forbid consideration of subsequent market performance to evaluate the existence of the alleged attempt..." *Id.* The court was seemingly unaware how considering such subsequent market performance invites hindsight bias.

46 See *Multistate Legal Studies, Inc. v. Harcourt Brace Jovanovich Legal & Prof'l Publications, Inc.*, 63 F.3d 1540, 1554 (10th Cir. 1995) ("Because we are talking about probabilities, it is not necessary for a defendant to already possess monopoly power in the target market; indeed, if it did, the offense would be monopolization, not attempt.")

failed attempts to monopolize a market impose antitrust injury.[47]

Predatory pricing law requires only that the predator have a dangerous probability of recouping its losses, not that it actually do so.[48] However, when courts suggest that factfinders should interpret an absence of actual recoupment as evidence that there was never a dangerous probability of recoupment, they effectively amend antitrust law to require actual recoupment without acknowledging that they are doing so. Such a change in substantive antitrust law is not warranted because predatory pricing inflicts significant injury even without recoupment.[49]

Hindsight bias can also fundamentally distort antitrust law on conspiracies. *Per se* violations of Section One of the Sherman Act do not have an efficacy requirement. For *per se* violations, plaintiffs do not have to show any market effects; anticompetitive effects are presumed as a matter of law. Antitrust law does not limit its condemnation to successful cartels.[50] Any agreement to fix price is illegal, whether successful or not.[51]

Hindsight bias can essentially amend antitrust law by imposing an effectiveness requirement on price-fixing and other *per se* claims in cases where the plaintiffs are proving an agreement through circumstantial evidence. When courts equate a lack of efficacy with an absence of agreement, judges are effectively rewriting the Sherman Act. If plaintiffs cannot prove an agreement absent proof of that conspiracy's success, then the agreement alone is no longer illegal – at least in cases where the claim is being proven with circumstantial evidence. Hindsight bias risks undermining antitrust law's *per se* rule because it is inconsistent to say that a conspiracy does not have to be successful, but then to hold that if alleged conspiracy is not successful that that is strong evidence that the conspiracy never occurred.

IV. HAVING THE FORESIGHT TO PREVENT HINDSIGHT BIAS IN ANTITRUST LITIGATION

Given the existence of hindsight bias in antitrust litigation and its power to surreptitiously undermine antitrust doctrine, courts should take appropriate steps to prevent hindsight bias from infecting antitrust litigation. Unfortunately, traditional mechanisms cannot solve the problem. For example, jury instructions cannot eliminate hindsight bias. Subjects in hindsight bias experiments do not ignore outcomes even when told to do so.[52] Indeed, the very nature of hindsight bias may prevent juries from ignoring evidence that they have been admonished to disregard.[53] Once a person knows the actual outcome, it is all but impossible to eliminate the effects of hindsight bias.

Another possible solution would be to rely more on judges rather than juries to make factual determinations about elements of antitrust claims that are susceptible to hindsight bias. However, relying on judges instead of juries does not eliminate hindsight bias[54] because in most situations, judges also exhibit hindsight bias.[55] Judges cannot avoid hindsight bias because it is not deliberate; it is a cognitive bias that happens subconsciously.[56] Controlled experiments using actual judges demonstrate that judges are influenced by inadmissible evidence.[57]

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47 See Leslie, *Hindsight Bias, supra* note 1 at 1575-76.

48 *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 251 (U.S. 1993) (Stevens, J., dissenting).

49 Christopher R. Leslie, *Predatory Pricing and Recoupment*, 113 Colum. L. Rev. 1695, 1741-44 (2013).

50 *Plymouth Dealers' Ass'n of No. Cal. v. United States*, 279 F.2d 128, 133 (9th Cir. 1960).

51 See Leslie, *Hindsight Bias, supra* note 1 at 1580 (collecting cases).

52 David B. Wexler & Robert F. Schopp, *How and When to Correct for Juror Hindsight Bias in Mental Health Malpractice Litigation: Some Preliminary Observations*, 7 Behavioral Sciences & the Law 485, 487-88 (1989).

53 Hawkins & Hastie, *supra* note 8 at 319; Jonathan D. Casper, Kennette Benedict, & Jo L. Perry, *Juror Decision Making, Attitudes, and the Hindsight Bias*, 13 L. & Human Behav. 291, 309 (1989).

54 Guthrie, Rachlinski & Wistrich, *supra* note 3 at 801.

55 *Id.* at 818 ("[J]udges in our study exhibited hindsight bias to the same extent as mock jurors and other laypersons."); *id.* at 804 ("[O]ur findings are consistent with other studies showing that judges are vulnerable to the hindsight bias.").

56 *Id.* at 804 ("When predicting the likelihood of something after the fact, judges cannot help but rely on facts that were unavailable before the fact.").

57 Andrew J. Wistrich, Chris Guthrie & Jeffrey J. Rachlinski, *Can Judges Ignore Inadmissible Information? The Difficulty of Deliberately Disregarding*, 153 U. Pa. L. Rev. 1251, 1259 (2005) ("[W]e found that some types of highly relevant, but inadmissible, evidence influenced the judges' decisions.").

The most effective way to address hindsight bias by antitrust juries is for judges to suppress evidence of subsequent market performance. In non-antitrust contexts, legal scholars have noted that "[t]he best way to prevent inadmissible information from influencing jurors is to shield them from it altogether."[58] There is no obvious downside to not letting jurors know subsequent market performance.[59] It is not part of an attempted monopolization or predatory pricing claim under Section Two or a *per se* claim under Section One.

After documenting hindsight bias in many legal contexts, Professors Wistrich, Guthrie & Rachlinski advocated a greater reliance on juries as a solution.[60] Judges can shield jurors from information that may lead to hindsight bias.[61] The professors reasoned that "when the only means of avoiding the effect of a cognitive illusion is to restrict access to the information that triggers it, a jury trial has a substantial advantage over a bench trial."[62]

The rules of evidence provide a sound basis for excluding evidence that invites hindsight bias. In non-antitrust contexts, courts have noted that hindsight bias can render evidence of subsequent events more prejudicial than probative and thus inadmissible.[63] The risk of hindsight bias renders evidence of subsequent market performance highly prejudicial. Jurors are too apt to conclude, consciously or subconsciously, that if the defendant did not actually achieve monopoly power that such failure was inevitable and the defendant never enjoyed a dangerous probability of monopolizing the market. Given the power of hindsight bias and the minimal probative value of post-conduct market power, courts can reasonably conclude that the prejudicial effect of such evidence outweighs its probative value and therefore the evidence should not be admitted.

Preventing jurors from hearing evidence that invites hindsight bias is a practical solution for antitrust trials. But most antitrust claims do not make it to juries, in part, because federal judges grant summary judgment as a result of hindsight bias. Judges need to appreciate that their exposure to outcome information subconsciously affects their ability to process information. Unfortunately, because people generally believe that they are unaffected by hindsight bias, it may be hard to convince judges that they are susceptible to hindsight bias and should give the case to a clean-slate jury. This counsels in favor of educating judges about the hindsight bias because even though education cannot prevent an individual from experiencing hindsight bias in a specific case, it may help judges recognize the larger problem and rely more on juries that have not heard the information that invites hindsight bias.

58 *Id.* at 1253.

59 Jolls, Sunstein & Thaler, *supra* note 9 at 1529 ("If hindsight bias is unimportant, then whether jurors are told what outcome occurred should not matter; either way, they should be able to make a correct ex ante determination.").

60 Guthrie, Rachlinski & Wistrich, *supra* note 3 at 821.

61 Wistrich, Guthrie & Rachlinski, *supra* note 57 at 1259 ("[W]e contend that jury trials should be favored over bench trials because judges can shield jurors from inadmissible information in ways that they cannot shield themselves.").

62 Guthrie, Rachlinski & Wistrich, *supra* note 3 at 827.

63 *Michigan Dept. of Transp. v. Haggerty Corridor Partners Ltd. Partnership*, 700 N.W.2d 380, 400 (Mich. 2005) (Kelly, J., concurring).

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