

I KNEW IT ALL ALONG: THE PROMISING EFFECTIVENESS OF A PRE- JURY INSTRUCTION AT MITIGATING HINDSIGHT BIAS

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Of all the forms of wisdom, hindsight is by general consent the least merciful, the most unforgiving. -John Fletcher¹

Jurors are often given the difficult task of determining the likelihood of injury given the defendant's behavior. This is particularly challenging because it requires jurors to disregard the fact that, in hindsight, an injury did occur. Research into mental cognition has emphatically shown that humans are notoriously ineffective at such determinations. Humans routinely overestimate the likelihood of an event if they are informed that it did occur. This well-documented cognitive bias is known as the hindsight bias. Studies into the hindsight bias in trial contexts generally find that not only is it highly pervasive but that attempts to mitigate it with debiasing jury instructions are largely ineffective. This is highly problematic, as the bias is present in numerous legal scenarios, it can be the deciding factor in a jury's verdict, and the biased outcomes disproportionately impact defendants. This study reports the findings of a first-of-its-kind pre-trial debiasing prompt that proves highly effective at mitigating the hindsight bias. These findings are further encouraging because this effective solution is more pragmatic than many other proposed solutions.

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¹*Of All the Forms of Wisdom, Hindsight Is by General Consent the Least Merciful, the Most Unforgiving*, INSPIRING QUOTES, https://www.inspiringquotes.us/quotes/KoeB_7BmS0CpW (last visited Oct. 24, 2021).

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INTRODUCTION

Jurors and judges are often given the difficult task of trying to ignore pieces of information. Examples include ignoring media coverage of the trial, a statement from a witness, or an outburst from a spectator at trial.² This research deals with another example—namely, when jurors are tasked with determining the likelihood that a defendant’s actions would lead to the injury while ignoring that the injury did in fact occur. The tendency of decision makers to overestimate the likelihood of events that they know did occur is so well documented it has been assigned its own cognitive bias, hindsight bias.³ The first study to measure hindsight bias was in 1810.⁴ Hindsight bias has been consistently replicated in over one hundred studies since.⁵

Existing literature has proposed various solutions to minimize this bias with mixed results.⁶ And the studies that did find a way to minimize the hindsight bias largely did so by having participants create written lists,⁷ which is not a feasible solution in a trial setting.⁸ Studies attempting to measure the effectiveness of jury instructions to mitigate hindsight bias in the legal setting have found them to be largely ineffective.⁹ This article demonstrates that this is likely the result of giving the mitigation instruction after the hindsight bias has taken effect. In this first-of-its-kind study, the debiasing prompt is issued before the evidence is heard. This led to a significant reduction in hindsight bias in both scenarios tested. These results

²See Toni Messina, *Keeping Your Jury From Social Media Contamination*, ABOVE THE L. (Apr. 29, 2019, 11:16 AM), <https://abovethelaw.com/2019/04/keeping-your-jury-from-social-media-contamination>.

³See Erin M. Harley, *Hindsight Bias in Legal Decision Making*, 25 SOC. COGNITION 48, 48 (2007).

⁴Christopher R. Leslie, *Hindsight Bias in Antitrust Law*, 71 VAND. L. REV. 1527, 1529 (2018).

⁵*Id.* at 1534.

⁶See Peter M. Clarkson et al., *Debiasing the Outcome Effect: The Role of Instructions in an Audit Litigation Setting*, 21 AUDITING: J. PRAC. & THEORY, no. 2, 2002, at 7, 9 (“[A]ttempts to discover effective debiasing techniques have been largely unsuccessful . . .”).

⁷*Id.* at 9–10.

⁸*Id.* at 10.

⁹See *infra* notes 33–54 and accompanying text.

are highly promising given the pervasiveness of hindsight bias and the highly pragmatic nature of this solution.

HINDSIGHT BIAS IN THE LEGAL SETTING

There are numerous situations at trial in which jurors and judges are asked to consider the likelihood of an outcome given the defendant's actions. In negligence cases, jurors must consider if the injury was foreseeable given the defendant's actions.¹⁰ Juror predictions of the likelihood of injury also affect the potential for punitive damages and the extent to which they are awarded.¹¹ In an antitrust case, the factfinder must make a determination as to whether the defendant's anticompetitive conduct was likely to result in monopoly power.¹² In attempted monopolization cases, if the defendant did not successfully obtain monopoly power, hindsight bias will cause juries to unjustifiably conclude that such an outcome was inevitable and therefore the defendant was never close to monopolizing the market.¹³

Hindsight bias also affects criminal law proceedings in numerous scenarios. Using a mock felony murder trial, a 2013 study found that jurors overestimate the likelihood of how foreseeable a murder was based on the underlying felony if they were informed that a murder did in fact occur.¹⁴ One study found that the determination of whether a police search was justified or not is affected by hindsight bias.¹⁵ A 2006 study found that a hypothetical police shooting of a suspect who appeared to have a gun was judged as less justified when study participants were informed that the suspect did not have a gun, information not available to the police officer at

¹⁰Harley, *supra* note 3, at 49.

¹¹While compensatory damages are meant only to compensate the plaintiff for their actual damages, punitive damages are meant to punish the defendant. Therefore, it stands to reason that the more likely the defendant's actions were to lead to the injury, the more justified punitive damages are. *See id.* at 49–50; *see also* Reid Hastie et al., *Juror Judgments in Civil Cases: Hindsight Effects on Judgments of Liability for Punitive Damages*, 23 *LAW & HUM. BEHAV.* 597, 609 (1999).

¹²Leslie, *supra* note 4, at 1530.

¹³*Id.* at 1589.

¹⁴Andrew J. Evelo & Edie Greene, *Judgments About Felony-Murder in Hindsight*, 27 *APPLIED COGNITIVE PSYCH.* 277, 281 (2013).

¹⁵Harley, *supra* note 3, at 50.

the time of the shooting.¹⁶ Studies have also found that hindsight bias affects the conclusions of DNA experts and fingerprint experts.¹⁷

Auditory and visual evidence presented at trial is particularly susceptible to the hindsight bias. The modern use of computer-animated accident reconstructions at trial likely increases the risk of hindsight bias in jurors.¹⁸ A 2006 study found that the use of computer-animated accident reconstructions produced hindsight bias effects more than twice what was present when only a traditional text plus diagram was used to describe the accident.¹⁹ A 2011 study found that providing written transcripts of degraded audio increases the confidence in mock jurors regarding what the degraded audio might be saying.²⁰

Hindsight bias may even cause jurors to engage in unjustified victim blaming. One study found hindsight bias was present when participants were more likely to possess a disapproving view of a rape victim in hindsight (they were informed a rape did occur) than in foresight (they were told the actions that led up to the rape but not whether a rape occurred).²¹

A prominent aspect of patent law is whether the product or technology is novel and nonobvious at the time of invention.²² This determination is susceptible to hindsight bias because it is always made after the time of invention. A 2006 study confirmed the presence of hindsight bias in mock jury decisions regarding the nonobvious nature of a hypothetical patent.²³

Trial outcomes may also be affected by the hindsight bias as it is applied to witnesses. For example, a medical expert witness is more likely to predict that a radiologist should have identified a tumor on an X-ray because the expert witness is, in hindsight, aware that it is in fact a tumor.²⁴ Another

¹⁶LAURENCE J. ALISON ET AL., HINDSIGHT BIAS AND SHOOTING INCIDENTS 4 (2006).

¹⁷Megan E. Giroux et al., *Hindsight Bias and Law*, 224 ZEITSCHRIFT FÜR PSYCHOLOGIE 190, 197 (2016).

¹⁸Neal J. Roeser et al., *The Propensity Effect: When Foresight Trumps Hindsight*, 17 PSYCH. SCI. 305, 308 (2006).

¹⁹*Id.*

²⁰Nicholas D. Lange et al., *Contextual Biases in the Interpretation of Auditory Evidence*, 35 LAW & HUM. BEHAV. 178, 185 (2010).

²¹Linda L. Carli & Jean B. Leonard, *The Effect of Hindsight on Victim Derogation*, 8 J. SOC. & CLINICAL PSYCH. 331, 340 (1989).

²²See *United States v. Adams*, 383 U.S. 39, 48 (1966).

²³Gregory N. Mandel, *Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational*, 67 OHIO ST. L.J. 1391, 1411 (2006).

²⁴Harley, *supra* note 3, at 54–55.

example would be that of a witness's ability to identify the defendant under imperfect conditions.

Hindsight bias is further problematic for defendants because it also results in the decision maker being more likely to remember information consistent with the known outcome and rate such information as more influential.²⁵ Therefore, facts at trial favorable to the defense—such as those that point to how unlikely the defendant's actions were to lead to injury—are disproportionately likely to be minimized, discounted, or even forgotten.²⁶

Another unique aspect of hindsight bias that harms defendants is that it is more likely to occur when negative outcomes are involved.²⁷ Because judicial determinations are mostly the result of a negative outcome, trials are at an increased risk of hindsight bias. Even worse for the defendant is that the bias increases in severity as the severity of the harm increases.²⁸ Meaning, the greater the injury suffered by the plaintiff, the more likely a juror is to erroneously predict that the defendant's conduct was likely to cause the injury.²⁹

Examples from real-life court cases further support the existence of hindsight bias in the legal system that scholarly research indicates is present. In a 2009 Italian case, six scientists were convicted of manslaughter and sentenced to six years in prison for failing to predict an earthquake.³⁰ In 1931, a U.S. court punished the executors of an estate for not selling the testator's stocks before the stock market crash of 1929.³¹ In a clear example of hindsight bias, the court explained, "It was common knowledge, not only amongst bankers and trust companies, but the general public as well, that the stock market condition at the time of testator's death was an unhealthy one . . . and that a crash was almost sure to occur."³²

²⁵ *Id.* at 48–49.

²⁶ *Id.* at 49.

²⁷ Giroux et al., *supra* note 171717, at 190.

²⁸ Harley, *supra* note 3, at 51.

²⁹ Susan J. LaBine & Gary LaBine, *Determinations of Negligence and the Hindsight Bias*, 20 LAW & HUM. BEHAV. 501, 511 (1996).

³⁰ Giroux et al., *supra* note 17, at 190. The decision was overturned on appeal. *Id.*

³¹ *In re Chamberlain's Estate*, 156 A. 42, 43 (N.J. Prerog. Ct. 1931).

³² *Id.*

POTENTIAL SOLUTIONS TO HINDSIGHT BIAS

Outside of the legal realm, multiple studies as early as 1977 have shown that hindsight bias can be mitigated by instructing the decision maker to come up with explanations that would result in alternative outcomes.³³ However, this alternative-outcome debiasing method has had mixed results when applied to judgments in a legal setting. When practicing state judges were used as participants in a study, this method produced no difference.³⁴ A similar debiasing technique that asked mock jurors to rank the likelihood of alternative outcomes did reduce hindsight bias.³⁵ But this result is largely irrelevant because it is unlikely that an attorney would be allowed to instruct jurors to perform a written task.³⁶ Therefore, verbal jury instructions are preferable.³⁷

Some researchers have suggested that testimony from expert witnesses describing hindsight bias to jurors should be utilized in an effort to reduce its effects.³⁸ This is likely not a practical solution. It is unclear how effective this would be,³⁹ and in most cases it would be prohibitively expensive to procure expert witnesses for this purpose. Furthermore, hindsight bias is for the most part uniformly applicable to instances in which the decision maker is tasked with predicting the likelihood of an event occurring when he or she already knows the event occurred. This uniformity means that a standardized jury instruction is a practical solution.

Others have suggested a bifurcated trial structure as a debiasing technique.⁴⁰ A bifurcated trial would involve dividing the trial into two parts. In the first part, jurors would only hear evidence about the defendant's actions

³³ See, e.g., Paul Slovic & Baruch Fischhoff, *On the Psychology of Experimental Surprises*, 3 J. EXPERIMENTAL PSYCH. HUM. PERCEPTION & PERFORMANCE 544 (1977); Martin F. Davies, *Reduction of Hindsight Bias by Restoration of Foresight Perspective: Effectiveness of Foresight-Encoding and Hindsight-Retrieval Strategies*, 40 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 50 (1987); Hal Richard Arkes et al., *Eliminating the Hindsight Bias*, 73 J. APPLIED PSYCH. 305 (1988).

³⁴ John C. Anderson et al., *The Mitigation of Hindsight Bias in Judges' Evaluation of Auditor Decisions*, 16 AUDITING: J. PRAC. & THEORY, no. 2, 1997, at 20–21.

³⁵ D. Jordan Lowe & Philip M.J. Reckers, *The Effects of Hindsight Bias on Jurors' Evaluations of Auditor Decisions*, 25 DECISION SCIS. 401, 414–15 (1994).

³⁶ Harley, *supra* note 3, at 57–58.

³⁷ *Id.* at 58.

³⁸ *Id.*

³⁹ *Id.*; Giroux et al., *supra* note 17, at 199.

⁴⁰ Harley, *supra* note 3, at 59–60.

but not the resulting injury.⁴¹ Jurors would then engage in the probabilistic determinations necessary for negligence.⁴² Only if negligence was determined to be present would the trial then progress into part two, in which the existence and extent of damages would be revealed to the jury, and decisions regarding a damage award would be made.⁴³

Studies have produced mixed results as to how effective at reducing hindsight bias a bifurcated trial would be.⁴⁴ Defendants are more likely to prevail in a bifurcated trial,⁴⁵ which may be the result of reducing hindsight bias. The mixed results of studies that measure the effects of a bifurcated trial are not surprising, given the numerous problems with such a solution. First, it is unlikely that a bifurcated trial would successfully keep the jury ignorant as to whether an injury occurred. Given that the jurors are participating in a trial, it is reasonable for them to assume that an injury has occurred, thus reintroducing hindsight bias.⁴⁶ And even in a bifurcated trial, the injured plaintiff may need to testify in the first stage. Therefore, the jury would be able to see any physical manifestations of more severe injuries the plaintiff suffered by observing, for example, a missing limb, neck brace, wheelchair, or cast. Conversely, jurors observing a plaintiff with one of those ailments but from an unrelated incident may incorrectly assume the defendant is to blame. Bifurcated trials are furthermore not very pragmatic because they impose additional burdens on the litigants, witnesses (who may now have to testify twice), and judicial system. The extra cost and extra difficulty are likely not warranted given the lack of evidence for such a bifurcated trial to reduce hindsight bias.

Studies that have analyzed the effectiveness of a written jury instruction have largely found the practice ineffective. One study attempted to use the following debiasing jury instruction to mitigate the hindsight bias effect:

Making a fair determination of probability may be difficult.
As we all know, hindsight vision is always 20/20. Therefore
it is extremely important that before you determine the
probability of the outcome that did occur, you fully explore

⁴¹ *Id.* at 59.

⁴² *See id.*

⁴³ *Id.* at 59–60.

⁴⁴ *Id.* at 60.

⁴⁵ Irwin A. Horowitz & Kenneth S. Bordens, *An Experimental Investigation of Procedural Issues in Complex Tort Trials*, 14 LAW & HUM. BEHAV. 269, 269 (1990).

⁴⁶ Harley, *supra* note 3, at 60.

all other possible alternative outcomes which could have occurred. Please take a moment to think of all the ways in which the event in question may have happened differently or not at all.⁴⁷

The study concluded that this debiasing jury instruction did not reduce hindsight bias.⁴⁸

Another study used the following debiasing jury instruction:

Hindsight bias is said to exist when individuals overestimate the extent to which an outcome could have been anticipated prior to its occurrence. This bias occurs when people unknowingly use outcome information in evaluating decisions made by others. Previous research has indicated that hindsight bias has been found in jurors' evaluation of auditors' decisions.⁴⁹

This instruction did not reduce hindsight bias. However, the study also tested the following, stronger prompt, and it was found to be effective:

Hindsight bias is said to exist when individuals overestimate the extent to which an outcome could have been anticipated prior to its occurrence. This bias occurs when people unknowingly use outcome information in evaluating decisions made by others. Previous research has indicated that hindsight bias has been found in jurors' evaluation of auditors' decisions. When an auditor is charged with improper conduct of an audit, jurors must decide *ex post* if the auditor exercised due professional care (was negligent). Jurors, however, have outcome information that was *not* available earlier to the auditors (e.g., deepened recession, nonavailability of new financing due to "tight money" conditions, unexpected litigation, etc.). Using this type of information in evaluating the decisions made by an auditor is certainly *inappropriate* and *unfair*.⁵⁰

⁴⁷Kim A. Kamin & Jeffrey J. Rachlinski, *Ex Post ≠ Ex Ante: Determining Liability in Hindsight*, 19 LAW & HUM. BEHAV. 89, 97 (1995).

⁴⁸*Id.* at 102.

⁴⁹Clarkson et al., *supra* note 6, at 18.

⁵⁰*Id.*

A study regarding hindsight bias in patent cases found the following jury instruction to be ineffective at mitigation:⁵¹ “In answering this question, you should avoid using hindsight: that is, you should not consider that [the inventor] came up with a solution, or what [the inventor’s] solution was, in determining whether it was obvious at the time [the inventor] was working on it.”⁵²

These results are not surprising because evidence suggests that jurors do a poor job of following jury instructions.⁵³ And limiting instructions from a judge have also been found to be counterproductive. Psychological reactance studies indicate that instructing a decision maker to ignore a piece of information may function to increase his or her reliance on it.⁵⁴ Furthermore, these studies presented the debiasing script after the mock juror read the case summary. Therefore, the hindsight bias had already influenced the decision maker before any attempt to mitigate it. This study hypothesizes that warning jurors of the hindsight bias before they are exposed to the facts of the case will be more effective at mitigating its effects.

METHODOLOGY

This study was conducted in the summer of 2021. A total of 132 participants were recruited from Amazon MTurk. Survey participants were screened for U.S. residency and for being at least eighteen years old. The average age of participants was 43.6.⁵⁵ Of the participants, 54% were male and 36% were female. After being asked a series of demographic questions, participants were randomly given one of two concise case summaries. One involved an advocacy group that conducted a provocative political rally that led to two politicians being killed by someone who attended the rally. The other involved a practical joke that inadvertently led to an injury to an elderly person. The full text of each case summary is available in Appendix A. Half of the participants assigned to each case summary were given a debiasing prompt before any information of the case was provided, while the other half were not. The prompt read as follows:

⁵¹ See Mandel, *supra* note 23, at 1411.

⁵² *Id.* at 1408 n.59 (alteration in original).

⁵³ See Judith L. Ritter, *Your Lips Are Moving . . . but the Words Aren’t Clear: Dissecting the Presumption that Jurors Understand Instructions*, 69 MO. L. REV. 163, 213–14 n.280 (2004).

⁵⁴ Leslie, *supra* note 4, at 1583–84.

⁵⁵ To protect anonymity, the survey collected age ranges and not exact ages. Therefore, this average age is an estimate.

Part of your duties in this case will be to determine the likelihood of injury given the defendant's actions. This will be difficult because we already know that the injury did occur and we tend to overestimate the likelihood of something happening if we know that it did happen. Therefore, as you hear the facts of the case, try and view them as someone who does not know the outcome. This way, you will not be biased in predicting the likelihood that the harm occurred.

This 2×2 format allows the effectiveness of the pre-jury instruction prompt to be measured under two different scenarios. After reading the case summary, participants were asked, "Based on the facts presented, what would you estimate is the likelihood that the defendant's behavior would lead to injury?"

RESULTS AND DISCUSSION

The results of this study indicate that a debiasing prompt can be highly effective if administered before the juror hears about the case. The average percentage of blame attributed to the defendants in the two cases when the debiasing prompt was not provided was 56.0%. When the prompt was provided, it was only 41.9%. A t-test was performed to determine if this result was statistically significant. The test returned a p-value of 0.0069, significantly lower than the 0.1 required for certainty at the 90% confidence level.⁵⁶ Furthermore, when a t-test was performed on the two case summaries individually, they each returned statistically significant results. The prank case summary had a p-value of 0.018, and the political rally case summary had a p-value of 0.073. It was determined that the sample size was too small to perform statistically significant assessments based on demographic factors such as age, race, and level of education. A survey of hindsight bias studies reveals no reason to believe that it would be significantly affected by such demographic factors.

While both case summaries returned statistically significant results when measured individually, it is interesting to note that the prank case summary's p-value of 0.018 is much stronger than the political rally case summary's p-value of 0.073. Perhaps the political rally question had greater variance

⁵⁶ A p-value of 0.0069 means there is more than 99% confidence that the results of this study are not due to random chance.

because it involved a more contentious issue. The scenario was intentionally crafted to be very different from the January 6, 2021 political rally that led to the Capitol riot. Furthermore, the case study was intentionally worded to provide no indication of which political party the rally was supported by or the political party of the murdered politicians. Regardless, participants in this study may have interpreted the description as being the result of either a left- or right-wing group. With such an interpretation, it is easy to see how the participant's own political leanings would result in either artificially high or artificially low assessments of how blameworthy the political activists in the case summary were.⁵⁷

The results of this study are promising not only because they significantly reduced the hindsight bias but also because implementing such a pre-jury instruction would be relatively easy compared to alternative options. Requiring jurors to perform written exercises designed to decrease hindsight bias as some have suggested would be time consuming and complex and therefore risk misunderstandings by jurors.⁵⁸ The suggestion of using expert witnesses to caution jurors about hindsight bias would likely be prohibitively expensive and time-consuming for most trials.⁵⁹ Conversely, as demonstrated in this research, the pre-jury instruction method is highly effective and easy to implement. Furthermore, the uniform nature of hindsight bias means that the language of the instruction would largely not be subject to time-consuming debate and later be grounds for appeal.

This study focused only on juror decision-making. However, judges are routinely tasked with making decisions that are susceptible to hindsight bias. Existing evidence regarding cognitive biases in general,⁶⁰ and hindsight bias specifically,⁶¹ indicates that judges are just as vulnerable to hindsight bias as

⁵⁷ Meaning, a Republican survey participant who assumed the political rally was conducted by Democrats and that the two murdered politicians were Republicans might ratchet up the level of blame attributed to the Democratic rally speaker. Conversely, a Democratic survey participant may ratchet down the level of blame they attribute to the speaker who they assume is a fellow Democrat. Likewise, a Republican survey participant may ratchet down—and a Democratic survey participant may ratchet up—the level of blame attributable to a speaker they assume is Republican.

⁵⁸ See Harley, *supra* note 3, at 57–58.

⁵⁹ *Id.*

⁶⁰ Michael Conklin, *Combating Arbitrary Jurisprudence by Addressing Anchoring Bias*, 97 WASH. U. L. REV. ONLINE 1, 5 (2019), <https://wustllawreview.org/essays/combating-arbitrary-jurisprudence-by-addressing-anchoring-bias/>.

⁶¹ Chris Guthrie et al., *Inside the Judicial Mind*, 86 CORNELL L. REV. 777, 802–03, 818 (2001) (“The judges in our study exhibited hindsight bias to the same extent as mock jurors and other laypersons.”).

lay jurors. And this may be worse, as judges render decisions on more than just the final judgment. The issue of hindsight bias in judges may even be more significant because judges make decisions throughout trial, not just render a verdict. These trial decisions, such as what evidence and testimony to exclude, are potentially even more susceptible to cognitive biases because they are made under time-pressure conditions in which such reliance on cognitive shortcuts is more advantageous.⁶²

Existing research on subject-matter experts, such as doctors, engineers, real estate appraisers, accountants, stock traders, psychologists, military leaders, and lawyers, has concluded that they are not significantly better at minimizing bias than non-experts.⁶³ Just because judges have subject-matter expertise, are well trained, and are generally of above-average intelligence, they are nevertheless no better equipped to address cognitive biases such as hindsight bias.⁶⁴

Research on judicial decision making confirms this. A study that used federal and state judges as participants found they also demonstrated hindsight bias in predicting the likelihood of the defendant's behavior resulting in harm.⁶⁵ Furthermore, studies conducted with other subject-matter experts, such as professional editors and medical experts, found that they also succumb to hindsight bias.⁶⁶ Furthermore, studies suggest that judges may be less receptive to debiasing techniques than jurors.⁶⁷

A potential criticism of this study is that it analyzed individual decisions and not a jury deliberation process as would occur at trial. While the traditional deliberation model is accurate, existing research has concluded that the model is significantly different from individual decision makers when it comes to reducing hindsight bias.⁶⁸

⁶²*Id.* at 783.

⁶³*Id.* at 782.

⁶⁴See Conklin, *supra* note 60, at 5.

⁶⁵John C. Anderson et al., *Evaluation of Auditor Decisions: Hindsight Bias Effects and the Expectation Gap*, 14 J. ECON. PSYCH. 711, 722, 732 (1993).

⁶⁶See, e.g., Harley, *supra* note 3, at 55–56 (showing that medical experts are not immune to the effects of the hindsight bias).

⁶⁷Giroux et al., *supra* note 17, at 196.

⁶⁸*Id.* at 199; Mandel, *supra* note 23, at 1414–15.

CONCLUSION

This study reveals that presenting a debiasing prompt at the beginning of trial is an effective and pragmatic method for mitigating the harms of hindsight bias in trial outcomes. The results of this study also invite future research. These future studies could implement replication with variation to test for prompts and delivery methods that are even more effective. Future research could also assess how measurements of the susceptibility of an individual for hindsight bias could be conducted during jury selection to result in mitigation of the effect in seated juries. Furthermore, the law is particularly susceptible to hindsight bias because there are various ways in which legal decisions are evaluated after the fact. The following are some examples:

The flight risk of a defendant who it is known did in fact flee;

Medical misdiagnoses;

Assessing the prudence of investment decisions, such as those made by a trustee;⁶⁹

Police shooting someone who was later discovered to be unarmed;

Executives' forecasts of corporate profits;

Predicting whether a patent was nonobvious at the time it was filed;⁷⁰

Antitrust cases in which the factfinder must determine if the defendant's behavior was likely to result in the monopoly power that did in fact occur;⁷¹

An appellate court's judgments regarding trial court decisions in which the appellate court has the benefit of additional information not available to the trial court judge;

The assessment of a claim regarding ineffective assistance of counsel that is made with the benefit of additional

⁶⁹ See, e.g., *In re Chamberlain's Estate*, 156 A. 42, 43 (N.J. Prerog. Ct. 1931).

⁷⁰ Mandel, *supra* note 23, at 1411.

⁷¹ Leslie, *supra* note 4, at 1530.

information about whether the attorney's strategy was ultimately successful;

The decision to suppress evidence from an allegedly unlawful search that is made with the hindsight that the search did produce evidence of illegal activity;

Assessing the credibility or decisions of a witness with the hindsight of information not available to the witness at the time he acted;

Assessing whether someone is fit to be a parent by evaluating a decision he or she made that, in hindsight, is known to have resulted in an injury to the child;

Experts who testify at trial, such as DNA and fingerprint experts;⁷²

Evaluating whether a contract is unconscionable by considering the end result to the parties;

Facebook's decision to allow some false information about the 2020 presidential election which, in hindsight, contributed to the January 6, 2021 Capitol riots;⁷³ and

Assessing long-term sports and entertainment contracts with an artist who was an unknown at the time of executing the contract but is now known to be very successful.⁷⁴

This research is highly promising, not only because the proposed solution appears to be highly effective at mitigating hindsight bias but also because

⁷²Giroux et al., *supra* note 17, at 197.

⁷³See Alexandra S. Levine, *Inside Facebook's Struggle to Contain Insurrectionists' Posts*, POLITICO (Oct. 25, 2021, 7:01 AM), <https://www.politico.com/news/2021/10/25/facebook-jan-6-election-claims-516997>.

⁷⁴For example, 1990s boy band NSYNC and manager Lou Pearlman were involved in litigation that included the fairness of their contract, which was signed before NSYNC was popular. Lauren Effron et al., *NSYNC, O-Town Members on Learning the Truth About Lou Pearlman: 'My Heart Broke. . . . He Was a Conman,'* ABC NEWS (Dec. 12, 2019, 8:47 AM), <https://abcnews.go.com/US/members-nsync-town-learning-truth-lou-pearlman-heart/story?id=67630216>. Evaluating such a contract is susceptible to hindsight bias because people know now how successful NSYNC is. But at the time of the contract, there was of course no guaranty of success; Lou Pearlman was risking the outcome that NSYNC would not be successful and he would lose his investment. This lawsuit was settled out of court. *Id.*

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the solution could be easily implemented. Furthermore, the importance of mitigating hindsight bias cannot be downplayed. Hindsight bias impacts a broad range of legal scenarios, can be the deciding factor in a jury's verdict, and disproportionately affects defendants. And because cognitive heuristics, such as hindsight bias, function as a shortcut, they likely cut short jury deliberations of other relevant issues. Finally, hindsight bias is influential in part because it plays into how people prefer to view the world as predictable and stable.⁷⁵ Acknowledging that a known outcome was unlikely goes against this notion. But the increased willingness of jurors to make such a concession may enhance their willingness to think critically about other preconceived notions regarding the trial—a mindset that is highly desirable in a jury deliberation.

⁷⁵ Jeffrey J. Rachlinski, *A Positive Psychological Theory of Judging in Hindsight*, 65 U. CHI. L. REV. 571, 582–83 (1998).

APPENDIX A

Political Rally Case Summary

You are a jury member involving the following case:

An advocacy group held a rally to show support for a piece of legislation. The legislation involved a highly contentious issue that led to civic unrest in the past few months. The main speaker at the rally used strong language such as claiming that if the legislation was not passed, “thousands would die every year,” and that any congressman who votes against the legislation “is personally responsible for those deaths.” The speaker further encouraged the crowd to “use any means necessary” to get the legislation enacted.

The next day, two congressmen who vowed to vote against the legislation were killed by supporters of the legislation who had attended the rally. The trial is to determine if the speaker is liable for inciting violence.

Prank Case Summary

You are a jury member in the following case:

A college student wanted to make a funny video to post online. He made his apartment look like it had been broken into and then, when his roommate came home, he jumped out with a fake gun while wearing a mask. Unbeknown to the prankster, the roommate brought his elderly grandfather with him to show him the apartment. The grandfather suffered a heart attack and although he survived, required extensive medical care.

The trial is to determine if the defendant is liable for the injury.