



Volume 67

Issue 5 2022 *Villanova Law Review* Norman J. Shachoy Symposium:
*The Consensus Rule: A New Approach To Admissibility Of Scientific
Evidence*

Article 1

2-14-2023

The "Crisis of Expertise" Reaches the Courtroom: An Introduction to the Symposium on, and a Response to, Edward Cheng's Consensus Rule

David S. Caudill

Follow this and additional works at: <https://digitalcommons.law.villanova.edu/vlr>



Part of the [Evidence Commons](#), [Judges Commons](#), [Jurisprudence Commons](#), and the [Science and Technology Law Commons](#)

Recommended Citation

David S. Caudill, *The "Crisis of Expertise" Reaches the Courtroom: An Introduction to the Symposium on, and a Response to, Edward Cheng's Consensus Rule*, 67 Vill. L. Rev. 837 (2023).

Available at: <https://digitalcommons.law.villanova.edu/vlr/vol67/iss5/1>

This Symposia is brought to you for free and open access by the Journals at Villanova University Charles Widger School of Law Digital Repository. It has been accepted for inclusion in Villanova Law Review by an authorized editor of Villanova University Charles Widger School of Law Digital Repository.

VILLANOVA LAW REVIEW

VOLUME 67

2022

NUMBER 5

Articles

THE "CRISIS OF EXPERTISE" REACHES THE COURTROOM: AN INTRODUCTION TO THE SYMPOSIUM ON, AND A RESPONSE TO, EDWARD CHENG'S CONSENSUS RULE*

DAVID S. CAUDILL**

[W]hether or not a statement is believed depends far less on its veracity than on the conditions of its "construction"—that is, who is making it, to whom it's being addressed and from which institutions it emerges and is made visible.¹

INTRODUCTION

THE discipline of law is always interdisciplinary—law necessarily comprises historiography, sociology, literature, economics, and, especially when it comes to courtroom expertise, science. The mandate in the *Daubert v. Merrell Dow Pharmaceuticals*² regime to let judges, somewhat independently of the scientific establishment, decide questions of admissibility

* When Gil Eyal coined the term "crisis of expertise" he was referring primarily to distrust of expertise in the regulatory context of law and policy disputes, not in the context of litigation:

The . . . moral panic about the 'assault on science' . . . mostly center[s] on what is called 'regulatory science' and 'policy science,' [fields which are] . . . contentious and crisis-prone precisely because [they] serve[] as the interface between scientific research, law[,] and policy.

GIL EYAL, *THE CRISIS OF EXPERTISE* 7–8 (2019).

** Professor and Goldberg Family Chair in Law, Villanova University Charles Widger School of Law.

1. Ava Kofman, *Bruno Latour, the Post-Truth Philosopher, Mounts a Defense of Science*, N.Y. TIMES MAG. (Oct. 25, 2018), <https://www.nytimes.com/2018/10/25/magazine/bruno-latour-post-truth-philosopher-science.html> [https://perma.cc/64C8-JK3X].

2. *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579 (1993) (establishing a new regime for discerning admissibility of expert testimony, including assigning the role of gatekeeper to District Court judges, and suggesting testability, error-rate, peer-reviewed publications, and general acceptance as factors for judges to consider in their evaluation of expertise).

(837)

has, in Edward Cheng's compelling analysis,³ proven to be misguided. Criticism of *Daubert* is not new—it proliferated immediately after the Supreme Court's decision and continues to this day—but Cheng's critique is, importantly, a clear proposal for a new federal rule of evidence.

In short, Cheng argues, “*Daubert* asks judges and jurors to make substantively expert determinations, a task they are epistemically incompetent to perform as laypersons.”⁴ As an alternative structure, Cheng recommends deference to the relevant expert community, which means that jurors should not be asked to make a scientific decision. For example:

To satisfy the requirement of proving causation in a toxic tort case, the question should not be: Does drug A cause disease X? The more appropriate question is: Does the scientific community believe that drug A causes disease X?⁵

To make his case, Cheng recounts in detail the shortcomings of *Daubert*, especially the fact that decisionmakers in legal proceeding are unlikely “to acquire a surface-level understanding of the material, let alone develop the expertise necessary to make informed judgments.”⁶

Of course, the scientific community can sometimes be wrong: “The reason why we should listen to the experts is not that they are infallible, but rather that they are more likely to be right than we.”⁷ Somewhat controversially, Cheng claims that when a

layperson uses his judgment not to determine the substantive answer to the scientific question, but rather to determine what the community consensus thinks it is[,] . . . the latter determination involves no expert judgment. The layperson is perfectly competent to perform it⁸

That foundational claim became an issue in the Symposium—is discernment of scientific consensus really so simple that anyone can do it?⁹ In any event, Cheng completes his proposal by (1) explaining that where

3. See Edward K. Cheng, *The Consensus Rule: A New Approach to Scientific Evidence*, 75 VAND. L. REV. 407 (2022).

4. *Id.* at 407.

5. *Id.*

6. *Id.* at 416.

7. *Id.* at 434 (citing HARRY COLLINS & ROBERT EVANS, *RETHINKING EXPERTISE 2* (2007)); see also *id.* at 456–57 (“[R]elative to the substantive scientific questions asked by the *Daubert* framework, Consensus Rule questions are far more manageable. At least answering the consensus question requires no special expertise.”).

8. See *id.* at 434–35.

9. Harry Collins, *The Owls: Some Difficulties in Judging Scientific Consensus*, 67 VILL. L. REV. 877 (2022); Robert Evans, *The Consensus Rule: Judges, Jurors, and Admissibility Hearings*, 67 VILL. L. REV. 883 (2022); Martin Wienel, *The Adversity of Adversarialism: How the Consensus Rule Reproduces the Expert Paradox*, 67 VILL. L. REV. 893 (2022); Wendy Wagner, *The Consensus Rule: Lessons from the Regulatory World*, 67 VILL. L. REV. 907 (2022).

there is no consensus, juries will need to decide expert questions;¹⁰ (2) distinguishing his evidentiary framework from *Frye v. United States*;¹¹ (3) acknowledging the potential conservatism in his approach;¹² and (4) confirming that, in his view, when experts testify as to consensus (and *not* what their scientific opinions are),

a lay decisionmaker is qualified to assess contradictory testimony on what a community believes. Indeed, one might even argue that testimony about what an expert community believes approaches lay testimony, as it hardly involves expert judgment at all.¹³

Cheng's comprehensive approach to law reform in the field of evidence—identifying a weakness in our admissibility framework, specifying a practical solution, and anticipating criticism—is both timely and persuasive.

Cheng's proposal for a "Consensus Rule"—basing admissibility of science-based evidence on consensus in the relevant scientific community—was the topic for the 2022 Norman J. Shachoy Symposium at Villanova University Charles Widger School of Law. The Symposium, held as Cheng's article appeared in *Vanderbilt Law Review*,¹⁴ brought together judges, evidence scholars, and sociologists of science to critically evaluate the Consensus Rule for federal courts. The purpose of this introductory Article is first, in Part I, to summarize Professor Cheng's opening remarks at the symposium, as well as the responses of four panelists to Cheng's proposal, the texts of which follow this introduction. In Part II, I offer my

10. See Cheng, *supra* note 3, at 437 ("In these cases, the Consensus Rule leaves the legal system right back where it started, with the jury deciding the expert question. But this outcome should not trouble us. If the expert community is divided, then the legal system cannot do much better than a coin flip anyway.")

11. See 293 F. 1013, 1014 (D.C. Cir. 1923). Cheng explains that *Frye* is an admissibility rule, and that in his proposal, the jury, not the judge, determines general acceptance. Cheng, *supra* note 3, at 438.

12. See Cheng, *supra* note 3, at 453 ("The Consensus Rule is perhaps a touch conservative, as it automatically rejects cutting-edge or controversial positions. But given the context, it arguably does so with good justification. Since legal actors lack epistemic competence on expert topics, they will find it difficult if not impossible to separate the wheat from the chaff. So the Consensus Rule plays the probabilities.")

13. *Id.* at 458. Cheng later explains: Under the Consensus Rule, experts no longer offer their personal opinions on causation or teach the jury how to assess the underlying studies. Instead, their testimony focuses on what the expert community as a whole believes about causation. If consensus statements or meta-analyses exist, then the parties will surely rely heavily on them. At the same time, judges do not gatekeep the substantive reliability of the scientific studies as they do under *Daubert*. Judges may of course check whether the testifying experts are adequately familiar with the relevant expert community, but otherwise all of the evidence on community belief goes to the jury, who is epistemically competent to assess it.

Id. at 467.

14. See *id.*

own assessment of Cheng's proposal. I agree with most of Cheng's analysis, but in the style of a friendly critique, I have some reservations and recommendations.

I. CONTRIBUTIONS TO THE SYMPOSIUM

Cheng's contribution to this Symposium (co-authored with Elodie O. Currier and Payton B. Hampton), entitled *Embracing Deference*,¹⁵ briefly summarizes and then goes beyond his earlier *Vanderbilt Law Review* article¹⁶ to demonstrate that the Consensus Rule is consistent with both the use of custom in medical malpractice cases and foreign language translation and interpretation in the courtroom. He begins with the expert paradox as formulated by Judge Learned Hand: "[H]ow can the jury judge between two statements each founded upon an experience confessedly foreign in kind to their own?"¹⁷ Judges, likewise, are almost always non-experts in the relevant field of controversy. To avoid the adversarial problem of party-driven experts confusing the jury with opposing opinions, Cheng argues that requiring jurors to defer to relevant expert communities is superior to previous proposals such as "neutral" court-appointed experts and judicial gatekeeping (*Daubert*).¹⁸ To show that the deference approach is hardly radical, Cheng points out that a "similar deference model has been operational in determining the standard of care of medical professionals for decades."¹⁹ Moreover, in cases involving foreign language translation, "courts readily concede their epistemic incompetence"—jurors cannot arbitrate between battling translators, so courts defer to a commonly accepted translation, one "that a consensus of experts (i.e., bilingual speakers) would agree upon."²⁰ While scientific expertise might seem "enticingly accessible" (we give short courses to judges!), it is time, Cheng concludes, to concede that in the limited time-frame of litigation, judges and juries are epistemically incompetent in most specialized, substantive fields of study.²¹

15. Edward K. Cheng, Elodie O. Currier & Payton B. Hampton, *Embracing Deference*, 67 VILL. L. REV. 855 (2022).

16. See Cheng, *supra* note 3.

17. Cheng, Currier & Hampton, *supra* note 15, at 855 (quoting Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40, 54 (1901)). In Cheng's formulation:

How is a jury, a nonexpert body, supposed to decide between the conflicting testimony of two adversarial experts when the very reason why those experts are in court is because the jury lacks expertise?

Id. at 860.

18. See *id.* at 857–58 ("The problem with court-appointed experts is that these proposals have never been successful.").

19. *Id.* at 863. The use, for example, of treatises and guidelines, or medical review panels, reflects a focus on community consensus. See *id.*

20. *Id.* at 872–73.

21. *Id.* at 873.

The first respondent to Cheng was Dr. Harry Collins, a Distinguished Research Professor at Cardiff University's School of Social Sciences. In his Article, *The Owls: Some Difficulties in Judging Scientific Consensus*, Collins not only finds "Cheng's arguments for abandoning [*Daubert*] entirely convincing,"²² but agrees that the proposal to follow consensus "move[s] in the right direction."²³ However, unless consensus has been "solidly formed," Collins doubts that it is as easily established as Cheng suggests:

Where there are [scientific] disputes, the *substance* of scientific consensus and the *strength* of the consensus can be hard to establish; and in both policy making and the courtroom, we need to know both substance and strength.²⁴

Scientific experts, notwithstanding their technical proficiency and one-way focus on truth irrespective of consensus (Collins calls them "eagles"), "are not always the best people to reflect on the nature of their skills, since there is no reason for them to do so."²⁵ But there is a smaller group of experts—potentially courtroom experts in Cheng's future regime—who are *not only* "deeply immersed in their scientific craft," *but also* able to "reflect upon the sociological and philosophical setting" of their expertise. The latter group, who can look in two directions (Collins call them a committee of "owls"), would be able to "deliberate and give an answer to the substance and strength of consensus in domains of science to which their experience was a match."²⁶ Collins concludes that Cheng will not be able to simply switch to his new "criterion to consensus within the current timetable and ethos of the courtroom"—we will likely need a new institution to make this work.²⁷

The next respondent at the Symposium, Dr. Martin Weinel, a research associate at Cardiff University, focuses on Cheng's hope of resolving the expert paradox. Like his colleague Collins, Weinel questions whether a "social judgment about the state of consensus about factual mat-

22. Collins, *supra* note 9, at 877. Collins agrees with Cheng that "the jury's ubiquitous expertise is not going to be adequate when faced with deciding between competing scientific experts." *Id.* at 878.

23. *Id.* at 877–78. Moving "in the direction of consensus has to be better than what we have now." *Id.* at 880.

24. *See id.* at 879 (emphasis added).

25. *See id.*

26. *Id.* at 880. Persisting in his bird metaphors—eagles as "powerful predators whose gaze is narrowly focused . . . in pursuit of the next objective in their domain of truth"—Collins explains:

While deeply immersed in their scientific craft, owls are still able to turn their heads through 180 degrees and reflect upon the sociological and philosophical setting which comprises the scientific "air" they fly in.

Id. 879–80.

27. *Id.* at 882.

ters within the scientific community” requires no expertise.²⁸ Weinel further states

In epistemic terms, it does not matter whether one judges the science or the social dynamics within a scientific community: without the requisite expertise, an epistemic mismatch remains This also means that the expert paradox still remains in place.²⁹

Some such social judgments, of course, do not require expertise—everyone can “agree that there is a very strong consensus in Western societies that dancing is not going to cause rain,” even among those who have not tried the method.³⁰ But how would an *outsider* know whether a claim of consensus in an expert scientific community is true? Weinel argues:

The social conventions that underpin knowledge production and ideas as to what counts as proven and established knowledge in esoteric communities are as much removed from our every-day experience as the actual scientific facts or claims that might feature in a[n] admissibility hearing under *Daubert*.³¹

To evaluate a claim of expert consensus requires *meta*-expertise (not expertise about a scientific field, but expertise about scientific expertise), which is only attained through “prolonged socialization into the expert community.”³² On the other hand, *external* meta-expertise, “based on criteria that lie outside of the specialist domain,” such as common sense, is “the least reliable type of expertise to make judgments about anything.”³³

Cardiff University Professor Robert Evans was the next respondent to Cheng’s proposal. In *The Consensus Rule: Judges, Jurors, and Admissibility Hearings*, Evans agrees that our “legal system can do better than *Daubert*,” but suggests that the Consensus Rule would have to be refined to make that happen.³⁴ Echoing Collins’s and Weinel’s concern that discerning expert consensus is more complex than Cheng assumes (for example, the boundaries of an expert community may not be clear), Evans warns that “experts” on consensus may be of lower quality than scientific experts—an “opposite effect” of what Cheng intended.³⁵ Therefore, instead of elimi-

28. Martin Weinel, Research Associate, Cardiff University, Presentation Materials for Norman J. Shachoy Symposium (Mar. 18, 2022) (on file with editors).

29. *Id.*

30. *Id.*

31. *Id.*

32. *Id.* Meta-expertise about consensus “relates to judgments about expert claims or about claims to expertise and not directly to substantive issues (scientific knowledge or consensus).” *Id.*

33. *Id.*

34. Evans, *supra* note 9, at 883.

35. *See id.*

The recommendation to remove the admissibility hearing risks having the opposite effect to what is intended—i.e., more low quality and/or

nating the *Daubert* admissibility hearing, Evans recommends “a revised admissibility hearing, in which judges . . . determine which experts [on consensus] are permitted to testify and the weight that should be attached to their testimony.”³⁶ The complexities facing a *jury* charged with determining consensus include the possibilities of (1) various confidence levels of consensus within a single expert community,³⁷ (2) inconsistent statements of consensus from two different relevant scientific communities,³⁸ and (3) conflicting statements of consensus from an expert in a scientific field, on the one hand, and a non-scientist-in that-field (perhaps a social scientist) with enough experience in the field to recognize consensus (a sociological, not a scientific, fact!), on the other.³⁹ Evans agrees with Cheng that jurors are epistemically incompetent to choose between expert scientific opinions, but adds:

[C]hoosing between expert claims about expert beliefs is better done with some knowledge and understanding of the relevant communities, their practices, and their social organization—all of which are opaque to a genuine outsider.⁴⁰

To solve that dilemma and retain the spirit of Cheng’s proposal, Evans recommends a pre-trial “Consensus Admissibility Hearing,” given that judges (admittedly outsiders), in contrast to juries, have “specialist training and substantial experience of legal argument[.]” to help them discern consensus.⁴¹ While these credentials likely do not rise to the level of experts who deeply understand the field, we should perhaps not let the perfect be the enemy of the good. The experts who testify at such a hearing would be *informants* about their expert community’s collective beliefs, and that consensus can be reported by the trial judge to a jury instructed to follow expert consensus—the goal of Cheng’s Consensus Rule.⁴²

irrelevant expertise enters the trial process, not less—and should be rejected.

Id.

36. *Id.*

37. Modest claims may garner more support than bold claims within the same expert community, hence “jurors may need to distinguish between competing expert claims . . . about the content and strength of the consensus to which they should defer.” *Id.* at 884–85.

38. “In this all-too-plausible scenario, jurors seeking to determine the consensus to which they should defer now find themselves having to choose between *different* expert communities.” *Id.* at 885.

39. *See id.* at 886 (“[J]urors must . . . now . . . choose between different types of experts . . .” (emphasis removed)).

40. *Id.* at 887. “It is precisely for this reason that Collins and Evans argue for a separate institution [called] the Owls . . . to produce authoritative determinations of consensus.” *Id.* (citing HARRY M. COLLINS & ROBERT EVANS, *WHY DEMOCRACIES NEED SCIENCE* (2017)). *See also* Collins, *supra* note 9, at 880.

41. Evans, *supra* note 9, at 887–88. The “aim of this Consensus Admissibility Hearing, is entirely consistent with Professor Cheng’s original proposal.” *Id.* at 890.

42. *See id.* at 890. “This will require more subtle judgments, informed by the testimony of expert witnesses, about the social relations, institutional networks and

Wendy Wagner, a professor from the University of Texas, was the next respondent; in her article entitled *The Consensus Rule: Lessons from the Regulatory World*,⁴³ she begins with admiration for Cheng's Consensus Rule. However, based on her own research into expertise in the *regulatory* environment, Wagner has some suggestions to get "the Consensus Rule ready for prime time":

A substantial change to how judges, juries, and attorneys process scientific evidence—heralded by Cheng's approach—will inevitably raise a few unanticipated challenges worthy of troubleshooting I am able to draw from [my] experience of using consensus approaches in the regulatory sphere to identify a few potential challenges for the Consensus Rule that may warrant some finetuning.⁴⁴

While examples of industry sponsors of science subtly manipulating (bending) the research process in their favor abound in policy disputes, Cheng's proposal may overcome that challenge in the courtroom by emphasizing mainstream scientific consensus.⁴⁵ But there remains a concern that the "idiosyncratic, albeit collective values" of *consensus* scientists may be invisible:

[S]ome "consensuses" within scientific specialties might be developed to advance a particular end or policy purpose. Forensic science is a classic example [E]ven in less overtly policy-driven settings, there are still significant risks of the blurring of science and policy in the black-boxing approach adopted by the Consensus Rule.⁴⁶

Wagner also echoes the concerns of her fellow panelists that consensus may not be as easy to determine as Cheng hopes—consensus changes over time; and using scientific panels to declare consensus (instead of letting it "emerge organically from the scientific community") raises the same concerns over the panelists' values.⁴⁷ Finally, Wagner worries that in cases where there is no governing consensus, the jury will be left in a post-*Daubert* world with "no guardrails for the trial process" and no "judge [to]

intellectual history of the domain." *Id.* at 888. Evans is perhaps too optimistic that such a pre-trial hearing is not an adversarial proceeding—*Daubert* hearings are quite adversarial.

43. Wagner, *supra* note 9.

44. *Id.* at 908.

45. *See id.* at 911.

46. *Id.* at 913 ("Forensic science exists because prosecutors commission it, and the number of troubling methodological blind spots in this type of evidence is now well-established.").

47. *Id.* at 918 ("[T]here are a number of difficult (value) choices involved in establishing which scientists serve on the panels, the 'charge' or questions they are tasked with answering, and the rules governing how they operate.").

cull out unreliable science or play any oversight role”⁴⁸ Wagner concludes with the idea of an alternative “consensus rule,” the details of which are forthcoming in her scholarship, focused not on “substantive agreement among scientists” but on procedural conventions among scientists, such as “skepticism, disinterestedness, and authorship,” that could serve as “guideposts a judge would use to determine whether to exclude scientific testimony.”⁴⁹

Finally, the panelists at the Symposium responding to Cheng’s Consensus Rule proposal included U.S. District Court Judge Jed Rakoff and former U.S. District Court Judge Shira Sheindlin, both of whom decided not to contribute scholarship to this issue. However, it bears mentioning that Judge Rakoff, who is known for his interest in neuroscientific expertise and his leadership role with respect to enhancing the quality of forensic science,⁵⁰ was somewhat critical of Cheng’s proposal, perhaps due to the implication that federal judges lack scientific judgment. By contrast, Judge Scheindlin, who handled numerous complex evidentiary cases during her tenure, was more open to Cheng’s proposal, observing that, in her experience, many federal judges are not as comfortable as Judge Rakoff in evaluating scientific expertise.

My own response to Cheng’s proposal, in Part II below, raises a concern related to the so-called crisis of expertise, evidenced by an increasing number of Americans who distrust consensus science.

II. WHAT IF JURORS DO NOT RESPECT CONSENSUS SCIENCE?

A number of studies find that . . . [among] scientists who publish peer-reviewed climate research, 97% agree that humans are causing global warming.

. . . A number of studies have found that political ideology is one of the dominant drivers of climate beliefs.

48. *Id.* at 920.

In this scenario where there is no governing consensus, then, the Consensus Rule would seem to yield an evidentiary approach that is not markedly better than the *Daubert* status quo. For all of its imperfections and complications, *Daubert* at least imposes some self-discipline on the types of experts that parties can introduce and on the nature of their testimony.

Id. at 922.

49. *Id.* at 923 (“This alternative approach is thus similar to Cheng’s Consensus Rule with respect to drawing on scientific consensus for guidance, but it looks to long-standing procedural conventions regarding how to do science . . .”).

50. Judge Rakoff represented the federal judiciary on the National Commission on Forensic Science, co-chaired the National Academies of Science’s Committee on Eyewitness Identification, participated in the development of the third edition of the federal judiciary’s *Manual on Scientific Evidence*, co-edited *The Judge’s Guide to Neuroscience*, and was a senior advisor to the President’s Council of Advisors on Science and Technology’s Advisory Group on Forensic Science.

. . . While climate belief varies across countries, an affiliation with conservative political parties is a consistent predictor of skepticism.⁵¹

Cheng presumes that juries will follow consensus science; but in the current culture wars, which reflect tribal divisions based on political ideologies, can we be confident that jurors will agree with, and not be skeptical of, an expert who testifies as to the consensus in a scientific community? During the recent (and ongoing?) COVID-19 pandemic, we have seen science become politicized and lose its mooring in scientific evidence. When we talk of people living in a filter bubble,⁵² we imply that when a filter bubble occupant confronts an opposing perspective, say a scientist warning about global warming, logical arguments may not sound compelling due to identity politics:

[P]olitics is not just about making the most logical argument. It also needs to be appealing to the imagination and identity of the people it concerns, and is often a case of trying to convince people “who we are” in terms of shared identity and values.⁵³

That is why the *meaning* of a scientific claim that humans caused global warming may, in rural America, be that the economy will suffer, and jobs will be lost.⁵⁴ The *meaning* of a vaccination mandate, for those who

51. Regarding the scientific consensus on human-caused global warming, see John Cook, *Countering Climate Science Denial and Communicating Scientific Consensus*, OXFORD RSCH. ENCYCLOPEDIA, CLIMATE SCI. 2–6 (Oct. 26, 2016), <https://doi.org/10.1093/acrefore/9780190228620.013.314> [<https://perma.cc/663K-U97K>] (citations omitted). Market research, however, shows that many voters “believe that there is no consensus about global warming in the scientific community.” *Id.* (quoting Frank Luntz, *The Environment: A Cleaner, Safer, Healthier America*, LUNTZ RSCH. CO. (2002)).

52. Some argue that the term “filter bubble”—a state of intellectual isolation brought on by website algorithms that filter out disagreeable information—is an advance over the term “echo chamber.” See ELI PARISER, *THE FILTER BUBBLE: HOW THE NEW PERSONALIZED WEB IS CHANGING WHAT WE READ AND HOW WE THINK* (2011).

In the filter bubble, there’s less room for the chance encounters that bring insight and learning By definition, a world constructed from the familiar is a world in which there’s nothing to learn. If personalization [via filters] is too acute, it could prevent us from coming into contact with the . . . preconception-shattering experiences and ideas that change how we think about the world and ourselves.

Id. at 13.

53. MARCUS GILROY-WARE, *AFTER THE FACT?: THE TRUTH ABOUT FAKE NEWS 19* (2020).

54. Arlie Hochschild’s concept of “deep stories,” developed in her journey through right-wing communities (including “Tea Party” adherents—mainly white, Christian Republicans), captures the set of central values and interests that constitute reality for those with flat wages and job insecurity. See ARLIE R. HOCHSCHILD, *STRANGERS IN THEIR OWN LAND: ANGER AND MOURNING ON THE AMERICAN RIGHT* xii (2016) (“I felt I was in a foreign country again, only this time it was my own.”). Their worldview—“political feeling also runs deeper than it did in the past”—is the

distrust government experts, may not be the key to protection of our health, but rather loss of personal freedom. This phenomenon problematizes the Consensus Rule and suggests that when we say that we seem to live in two different worlds, we mean we *see* things differently. Over twenty years ago, the clash of contradictory certainties that we experience nowadays was identified by Michiel Schwarz and Michael Thompson's *Divided We Stand: Redefining Politics, Technology, and Social Choice*.

If different actors, in the same debate, cognize differently (that is, if they *see* things differently and *know* things differently), then they will inevitably be operating with different definitions of what is there. The debate, therefore, will entail the clash of differently drawn boundaries and the contention of incompatible rules of closure.⁵⁵

The problem of politicized science can then become a problem in the jury room.

The so-called "crisis of expertise" seems to be a sub-part of what is perceived as the broader "culture wars," the latter of which includes the polarized divisions in the U.S. based on differing political parties, human values, economic priorities, and so forth. The "crisis of expertise," on the other hand, refers to the distrust of consensus science on the part of a movement or group of citizens, and in most cases those same citizens' strong belief in alternative, minority "scientific" views. This, too, is a tribal division between those who trust consensus science and those who do not. The crisis also refers to the politicization of science, insofar as those who, for example, believe in "man-made" climate change or the efficacy of mask-wearing during a pandemic, and those who do not, become associated with opposing political parties and even opposing politicians (who, like ordinary citizens, may or may not trust consensus science).⁵⁶ Hostility

same one that might resist environmental regulation on economic grounds ("politics is the single biggest factor determining views on climate change"). *See id.* at 6–7.

55. MICHEL SCHWARZ & MICHAEL THOMPSON, *DIVIDED WE STAND: REDEFINING POLITICS, TECHNOLOGY, AND SOCIAL CHOICE* 33 (1990). The relevance of Schwarz and Thompson's analytical framework to our current circumstances is that, while much has changed, we should not be provincial and assume that our contemporary cultural divisions over scientific matters are new.

56. *See generally* EYAL, *supra* note * (introducing the term "crisis of expertise"); *see also id.* at 16–21 (discussing that from the 1960s to now the politicization of complex issues has led to some lay people having strong beliefs against majority "expertise" opinions); Kelly McLaughlin & Yelena Dzhanova, *Experts Warn Anti-Vaxxer Concerns About a COVID-19 Vaccine Could Slow the End of the Pandemic*, *BUS. INSIDER* (Dec. 3. 2020, 6:23 AM), <https://www.businessinsider.com/anti-vaxxers-concern-covid-19-vaccine-unhelpful-experts-say-2020-12> [<https://perma.cc/NG5Y-AYM8>] (noting another common example of the politicization of science, namely the controversy over perceived dangers of COVID-19 vaccinations); Shi-Ling Hsu, *Anti-Science Ideology*, 75 *U. MIAMI L. REV.* 405, 406 (2021) (alluding to concern that the Trump administration downplayed or did not take the COVID-19 pandemic seriously).

towards scientific *experts* is also evident—“many voters are apparently willing to believe that scientific experts might be part of a ‘mainstream establishment’ conspiring to oppress them.”⁵⁷ If half the population does not trust relatively consensus science, where does that leave the Consensus Rule? Living in different worlds is not simply a metaphor, it is an accurate description of the experience of different realities.⁵⁸ One’s political orientation can be transformed “into a mega-identity that renders opposing partisans different from, even incomprehensible to, one another.”⁵⁹

The effects of social media should be acknowledged in this context. In response to a question by a reader whether she should stop speaking to Trump-supporting friends, the *New York Times* ethicist replied:

[P]eople can be epistemically disadvantaged by gaining their beliefs from social networks that are radically unreliable. We get many of our false beliefs . . . by listening to the views of people we trust.⁶⁰

57. Hsu, *supra* note 56, at 411 (stating “directing animus towards scientific experts and science is grotesquely misguided”). Anti-science ideology works, Hsu explains, in part because scientific experts are part of “the establishment” or “the deep state”—our “dependence upon a vast network of government experts breeds suspicion and resentment,” especially when those experts are viewed as a privileged elite (with powerful knowledge most cannot understand). *Id.* at 443. “It is easy to portray scientists as part of a privileged ‘elite,’ a time-tested political epithet that has often been deployed to great effect in American political campaigns.” *Id.* at 444 (citing BENJAMIN MOFFITT, *THE GLOBAL RISE OF POPULISM: PERFORMANCE, POLITICAL STYLE, AND REPRESENTATION 1* (2016)) (discussing how “populists across the world have made headlines by setting ‘the people’ against the ‘elite’ in the name of popular sovereignty and ‘defending democracy’”); Oscar Winberg, *Insult Politics: Donald Trump, Right-Wing Populism, and Incendiary Language*, 12 EUR. J. AM. STUD. 1, 4 (2017). Falsely linking “job losses to science-backed environmental regulation” also helps fuel anti-science ideology, as does the fate of white working-class Americans:

Finding themselves in opposition to a panoply of non-white, non-Christian, non-heterosexual groups, [Amy] Chua argues that the newly impoverished white working class seeks desperately to coalesce to regain political power they perceive they have lost. It is not hard to see how part of that white working-class identity, rooted in grievance, would find scientific experts, including economists, to be part of the despicable “other.”

Hsu, *supra* note 56, at 445, 448 (citing AMY CHUA, *POLITICAL TRIBES: GROUP INSTINCT AND THE FATE OF NATIONS 137–64* (2019)).

58. For Schwarz and Thompson, contradictory views of nature “lie beyond the reach of both orthodox (‘what are the facts?’) scientific method and the conventional notion of ‘decision making under uncertainty.’” SCHWARZ & THOMPSON, *supra* note 55, at 4. “Another way of putting it is that each actor is perfectly rational, given his or her convictions as to how the world is. The situation is one of plural rationalit[ies]” *Id.* at 6.

59. Eli J. Finkel, Christopher A. Bail, Mina Cikara, Peter H. Ditto, Shanto Iyengar, Samara Klar, Lilliana Mason, Mary C. McGrath, Brendan Nyhan, David G. Rand, Linda J. Skitka, Joshua A. Tucker, Jay J. Van Bavel, Cynthia S. Wang & James N. Druckman, *Political Sectarianism in America: A Poisonous Cocktail of Othering, Aversion, and Moralization Poses a Threat to Democracy*, 370 SCI. 533, 534 (2020).

60. Kwame Anthony Appiah, *Should I Stop Speaking to My Trump-Supporting Friends?*, N.Y. TIMES MAG. (Dec. 1, 2020), <https://www.nytimes.com/2020/12/01/>

Add to this the ubiquity of experts during the COVID-19 pandemic, the collapse of professional journalism (“losing out in competition to social media”), and the way former “President Trump and kindred Republicans are trafficking in misinformation about hard, provable scientific facts that are susceptible to empirical verification,” and you have what some commentators have identified as anti-science politics.⁶¹

Cheng anticipates this problem—“the American distrust of experts runs deep”—but Cheng believes jurors would follow an instruction to follow consensus due to jurors’ specific role in an unfamiliar environment, and the ease in answering a deferential question.⁶² Cheng may be right, insofar as jurors are not being asked to *believe* in consensus science, but only to identify it as a fact. But there is the catch—distrust of mainstream scientific experts means distrust of what they claim to be a fact, namely scientific consensus on some controversial matter.

Cheng cites a recent study finding that a majority view of scientists was “one of the most influential factors in predicting a person’s views on a disputed scientific issue,” but he also cites another study that is less clear on this point.⁶³ A 2020 study of what convinces jurors to believe an expert found “endorsement by other experts”—perhaps a proxy for consensus—to be highly persuasive.⁶⁴ Even when disputes become politicized, Cheng notes, consensus influences lay decision-making, “even under the most trying of circumstances.”⁶⁵ However, his examples from two 2015 studies, (1) finding that consensus among medical scientists that vaccines are safe improves attitudes towards vaccines, and (2) finding that “consensus in-

magazine/should-i-stop-speaking-to-my-trump-supporting-friends.html [https://perma.cc/ER8R-7MAH].

61. Hsu, *supra* note 56, at 450–51.

62. Cheng, *supra* note 3, at 436–37 (“Given the difficulty of the material and their limited time and resources, juries are highly unlikely to make their task harder than it already is. So even if a juror normally distrusts experts, the juror may obey the Consensus Rule at trial.”).

63. See Cheng, *supra* note 3, at 452 (citing Branden B. Johnson, Nathan F. Dieckmann & Marcus Mayorga, Cues to Relative Credibility: Their Relative Influence on Lay Americans’ Judgments of Disputing Groups of Scientists 19–21 (Mar. 10, 2020) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3552167 [https://perma.cc/FZ4Y-3PCP]; (explaining “this factor is *most influential* when the topic was esoteric and unfamiliar” (emphasis added)). *But see id.* (citing Branden B. Johnson, “Counting Votes” in *Public Responses to Scientific Disputes*, 27 *PUB. UNDERSTANDING SCI.* 594, 606 (2018) (citing a different study that claims information on the distribution of scientist views “had modest *indirect effects*” (emphasis added)). Cheng’s inconsistent citations diminish the influence he claims that the views of a majority of scientists have on public confidence in science.

64. See Kristy A. Martire, Gary Edmond & Danielle Navarro, *Exploring Juror Evaluations of Expert Opinions Using the Expert Persuasion Expectancy (ExpEx) Framework*, 25 *LEGAL & CRIMINOLOGICAL PSYCH.* 90, 90 (2020).

65. See Cheng, *supra* note 3, at 452.

creases belief in human-caused climate change,”⁶⁶ predate the COVID-19 pandemic—the latest iteration of the crisis of expertise.

Support for Cheng’s optimism is found in those commentators who acknowledge the “growing distrust of expertise,” but limit that distrust “primarily to contemporary politicized issues like climate change, COVID-19 vaccination, or mask wearing.”⁶⁷ Naomi Oreskes, the author of *Why Trust Science?* (2019), seems to agree when she identifies two sources of distrust of science regarding climate change—(1) some people didn’t want to accept the implications of climate change (capitalism failed, so we need government intervention and lifestyle changes), so they “questioned the science,” and (2) “because climate-change denial got picked up by the Republican Party as a political platform, it became polarized according to partisan politics.”⁶⁸ Since “[m]ost experts do not testify about topics that are debated in the political sphere,” we might be reassured by Oreskes’s research.⁶⁹

The reality is that, if we look at careful public-opinion polls, what we see is that most people do trust . . . experts on most things [P]eople use experts all the time [e.g., dentists; car mechanics], and most of us don’t spend a lot of time second-guessing experts on most issues.⁷⁰

My concern with Cheng’s proposal, however, remains—people might trust the experts they choose, but to the extent that the crisis of expertise has been exacerbated by the tribal divisions in our country, we don’t yet have evidence that jurors will trust consensus science in the courtroom.

We know from a 2006 study that jurors are influenced to some degree by ideological biases; the so-called litigation crisis, impressions of which may be the result of insurance industry campaigns,⁷¹ had some effect on jurors—belief that litigation is often frivolous was associated with the view

66. *Id.* (citing Sander L. van der Linden et al., *Highlighting Consensus Among Medical Scientists Increases Public Support for Vaccines: Evidence from a Randomized Experiment*, BMC PUB. HEALTH, Dec. 2015, at 3; Sander L. van der Linden et al., *The Scientific Consensus on Climate Change as a Gateway Belief: Experimental Evidence*, PLOS ONE, Feb. 2015, at 2 [hereinafter Sander L. van der Linden, *Scientific Consensus on Climate Change*]).

67. See T.C. Kelly, *Do Jurors Have an Anti-Science Prejudice Against Expert Witnesses?*, EXPERTPAGES: BLOG (Aug. 17, 2020), <https://blog.expertpages.com/in-the-news/do-jurors-have-an-anti-science-prejudice-against-expert-witnesses.htm> [<https://perma.cc/TZD5-SLN5>].

68. See Isaac Chotiner, *How to Talk to Coronavirus Skeptics*, NEW YORKER (Mar. 23, 2020), <https://www.newyorker.com/news/q-and-a/how-to-talk-to-coronavirus-skeptics> [<https://perma.cc/PZU7-W9T9>] (interviewing Naomi Oreskes). “[Oreskes:] [T]hen it became tribal. So now you have this deeply polarized situation in the United States where your views on climate change align very, very strongly with your party affiliation.” *Id.*; see also NAOMI ORESKES, *WHY TRUST SCIENCE?* (2019).

69. Kelly, *supra* note 67.

70. Chotiner, *supra* note 68 (interviewing Naomi Oreskes).

71. See Kelly, *supra* note 67.

that experts could be found to support any cause of action.⁷² The ideological distrust of expertise during the COVID-19 pandemic could have similar effects in the courtroom.

In the context of governmental expertise, and the manner in which consensus science might be ignored by large segments of the population, scholars have identified perceptions of academic experts as elitist⁷³ and perhaps even dangerous—seen as (1) technocrats with too much power, and as (2) “robotic” in their uncritical attitude toward consensus science.⁷⁴ Courtroom experts might, therefore, attempt to appear less arro-

The view that . . . expert opinions are “elitist” has gained the acceptance of a surprising number of people. Coupled with the insurance industry’s campaign to disparage legitimate opinions as the product of “junk science,” it can be difficult for experts to gain the respect of jurors.

. . . Some experts may need to overcome bias . . . to brand as “junk science” the basis for opinions that experts rely upon.

Id. (citing Niels G. Mede & Mike S. Schäfer, *Science-related Populism: Conceptualizing Populist Demands Toward Science*, 29(5) PUB. UNDERSTANDING OF SCI. 473 (2020)).

72. See Sanja Kutnjak Ivković & Valerie P. Hans, *Jurors’ Evaluations of Expert Testimony: Judging the Messenger and the Message*, 28 L. & SOC. INQUIRY 441, 453 (2003). In this survey,

it was possible to determine whether . . . attitudes or demographic characteristics [other than skepticism] were related to these views of experts. The strongest relationship was with an attitude scale, the Litigation Crisis Scale, which measured the extent to which a juror believed that there was a litigation crisis and a substantial amount of frivolous litigation. Jurors who showed the greatest suspicion of experts also tended to believe that there were many illegitimate lawsuits. The correlation between the Litigation Crisis Scale and the item “Lawyers can always find an expert who will back up their client’s point of view, no matter what it is” was .32, $p < .001$ [That correlation is] of modest size but statistically significant.

Id. (quoting Ivković & Hans, *supra*, at 452 Table 1) (citing VALERIE P. HANS, BUSINESS ON TRIAL: THE CIVIL JURY AND CORPORATE RESPONSIBILITY (2000); Valerie Hans & William S. Lofquist, *Perceptions of Civil Justice: The Litigation Crisis Attitudes of Civil Jurors*, 12 BEHAV. SCIS. & L. 181–96 (1994)).

73. See Mede & Schäfer, *supra* note 71.

Opinion polls, experiments, qualitative interviews, and discourse analyses show that segments of the broader public . . . criticize scientific research, both on controversial topics like climate change or vaccination and on less politicized topics like nutrition or physical therapy. Not all of these criticisms follow the populist logic of portraying the people and the elite as antagonists—but some of them do, accusing climate scientists, for example, of being “part of the ‘elite groups’ who fool people”

Id. (quoting Marianna Poberezhskaya, *Blogging About Climate Change in Russia: Acitivism, Scepticism and Conspiracies*, 12 ENV’T COMM’N 942, 947 (2018)) (citations omitted). Hence the concern that “consensus messaging is an argument from authority,” and the recommendation by some scholars that experts emphasize the “evidential foundation” of consensus and not the credibility and authority of elite scientists. See Cook, *supra* note 51, at 10–11.

74. See Darrin Durant, *Ignoring Expertise*, in THE THIRD WAVE IN SCIENCE AND TECHNOLOGY STUDIES: FUTURE RESEARCH DIRECTIONS ON EXPERTISE AND EXPERIENCE 33–52 (David S. Caudill, Shannon N. Conley, Michael E. Gorman & Martin Weinell eds., 2019). In his investigation of Australian climate change experts, Durant argues that experts are often ignored as (1) unreflective, dogmatic authoritarians, and also as (2) technocratic enemies of democracy.

gant; indeed, some modesty about following scientific consensus may be in order in the era of “TRUST SCIENCE NOT MORONS” T-shirts:

The cliché is that people should “follow the science” and do whatever “science says.” But the truth is that science says many things at once. Science says that the coronavirus can last one month on surfaces; it also says it’s vanishingly rare to get the coronavirus from surfaces. Bad studies, good studies, and mediocre studies are all part of the cacophonous hydra of “science” that is constantly “saying” stuff.⁷⁵

In a media-driven world, adoption of Cheng’s Consensus Rule may also require that we understand the impact of *misinformation* on an expert’s ability to communicate consensus, and how to neutralize that impact.

While scientists need to communicate the consensus, they also need to be aware of the fact that misinformation can interfere with the communication of accurate scientific information. As a consequence, neutralizing the influence of misinformation is necessary. . . . [S]cientific explanations should be coupled with inoculating explanations of how that science can be distorted.⁷⁶

This strategy of inoculation, however, implies preemptive refutation—“pre-bunking”—of misinformation before it influences listeners; “debunking” misinformation, as would occur in the courtroom, is less effective.⁷⁷

Finally, and this phenomenon support’s Cheng’s Consensus Rule, studies have found that the perception of consensus is a “gateway belief” that can influence a number of other beliefs and attitudes.⁷⁸ For example:

When people understand that climate scientists agree on [anthropogenic global warming], they are more likely to accept that

75. Derek Thompson, *Hygiene Theater is Still a Huge Waste of Time*, THE ATLANTIC (Feb. 8, 2021), <https://www.theatlantic.com/ideas/archive/2021/02/hygiene-theater-still-waste/617939/> [https://perma.cc/R2VX-YLLL].

76. Cook, *supra* note 51, at 1.

77. *Id.*

Two approaches to neutralize misinformation involve refuting myths after they have been received by recipients (debunking) or preemptively inoculating people before they receive misinformation (prebunking). Research indicates preemptive refutation or “prebunking” is more effective than debunking in reducing the influence of misinformation. Guidelines to practically implement responses (both preemptive and reactive) can be found in educational research, cognitive psychology, and a branch of psychological research known as inoculation theory. Synthesizing these separate lines of research yields a coherent set of recommendations for educators and communicators.

Id.

78. Sander L. van der Linden, *Scientific Consensus on Climate Change*, *supra* note 66, at 2.

global warming is happening, that humans are causing global warming, and that the impacts are serious, and, importantly, they are more likely to support policies to mitigate climate change.⁷⁹

That is why “opponents of climate action [have] expended so much effort on casting doubt on the scientific consensus.”⁸⁰ Cheng’s reliance on research showing consensus as an influential factor in predicting viewpoints⁸¹ is therefore bolstered in the context of climate debates— “[a]mong Republicans, perceived consensus is the strongest predictor of belief in global warming.”⁸² Whether consensus would be the deciding factor for juries in a contemporary courtroom in which the Consensus Rule was adopted, given the escalation of the crisis of expertise during the COVID-19 pandemic, is an open question.

CONCLUSION

Developing and proposing the Consensus Rule as an alternative to *Daubert*, however, is only the beginning. Looking forward, we need additional research on several empirical questions . . .⁸³

Cheng wisely concludes his Consensus Rule proposal in the hope of “some confirmatory evidence, perhaps through a future vignette study, that a deference approach is empirically superior” to the conventional notion (implied in *Daubert*) that an expert should educate the jury.⁸⁴ My concerns in this Article with the distrust of scientific consensus—the effect of the crisis of expertise on a jury instructed to follow consensus—would also be addressed by such a study. That is, will some jurors fail to respect scientific consensus, finding the expert who announces the view of a majority of scientists in a particular field (or those scientists themselves) elitist and overly dogmatic?

79. *Id.* at 8.

Thus, casting doubt on consensus has the effect of decreasing acceptance of climate change and reducing support for climate policy. Numerous surveys indicate the misinformation campaign targeting scientific consensus has been effective, with the public in many countries believing that there is significant disagreement among climate scientists about whether humans are causing global warming.

Id. (citations omitted).

80. *Id.*

81. See sources cited *supra* note 66.

82. Cook, *supra* note 51, at 8 (citing Justin C. Rolfe-Redding, Edward W. Maibach, Lauren Feldman & Anthony Leiserowitz, Republicans and Climate Change: An Audience Analysis of Predictors for Belief and Policy Preferences (Mar. 21, 2012) (unpublished manuscript), <http://papers.ssrn.com/abstract=2026002> [<https://perma.cc/J3GG-EPD2>]).

83. Cheng, *supra* note 3, at 472.

84. *Id.* at 473; see also *id.* at 415 (stating “the role of the expert may be to educate the jury . . . to the point at which the jury can make its own informed decision”).

The contributions to the Symposium that follow this introductory Article together constitute both an enthusiastic appreciation of, and a critical response to, Cheng's proposal for a consensus rule in the law of evidence—a new, deferential approach to the problem of judges and juries who are not capable of evaluating experts. The Symposium was a great success by any measure, and we at Villanova Law appreciated the opportunity to host this important event.