# THE CONSENSUS RULE: JUDGES, JURORS, AND ADMISSIBILITY HEARINGS

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## INTRODUCTION

IN his provocative argument in favor of the Consensus Rule,<sup>1</sup> Edward Cheng suggests that *Daubert* admissibility hearings, and hence the role of judges in determining which expert evidence juries get to hear, should be scrapped. In their place he proposes an "inference rule," under which juries are (1) asked to determine what the consensus amongst the relevant expert community is and, where this consensus exists, (2) instructed to defer to that. In what follows, I respond to Cheng's proposal in what I hope is a positive spirit, agreeing with him that the U.S. legal system can do better than *Daubert*, but also suggesting that his own proposal needs some refinement if it is to deliver this.

The principal strength of the "Consensus Rule" is the idea that legal decisions should start from the collective position of the expert community, rather than the case-by-case evaluation of individual experts, which is what the *Daubert* admissibility hearing essentially requires. The weaknesses of the proposal, which I explore in more detail below, are twofold:

- (1) Consensus is more complicated than Cheng appears to allow. The Consensus Rule appears to assume that consensus is either present or absent—i.e., that a fact is or is not established—and that the boundary of the expert community that holds this consensus is likewise clearly defined. Neither of these conditions can be assumed, however, which means that lay jurors are unable to perform the task assigned to them with anything like the epistemic competence Cheng assumes.
- (2) The recommendation to remove the admissibility hearing risks having the opposite effect to what is intended—i.e., more low quality and/or irrelevant expertise enters the trial process, not less—and should be rejected. Instead, a revised admissibility hearing, in which judges use "consensus rule reasoning" to determine which experts are permitted to testify and the weight that should be attached to their testimony, is needed.

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<sup>1.</sup> See Edward K. Cheng, The Consensus Rule: A New Approach to Scientific Evidence, 75 VAND. L. REV. 407 (2022).

## I. NATURE OF CONSENSUS

To begin with the nature of consensus, Cheng makes two claims. First, that the "propositional" questions that *Daubert* poses (e.g., does X cause Y?) should be replaced with a "sociological" question (i.e., does the relevant expert community believe that X causes Y?); and second, that this sociological question can be correctly and reliably answered by lay persons:

Most of the time, the best evidence of the scientific community's judgment will come from individual experts. The layperson retains the duty to determine when an individual expert is accurately reporting or representing that consensus. This subtle point is worth restating. The layperson uses his [sic] judgment not to determine the substantive answer to the scientific question, but rather to determine what the community consensus thinks it is. The perspective shift is critical, for the latter determination *involves no expert judgment. The layperson is perfectly competent to perform it*, and there is no expert paradox.<sup>2</sup>

Cheng's argument thus appears to rest on two assumptions:

- (1) There is a clearly defined expert or scientific community that collectively believes a "fact" has been established;
- (2) That it is easy for an outsider to recognize when such agreement has been reached.

As Collins notes in his response to Cheng in this Symposium,<sup>3</sup> things are rarely that simple. Whilst some of these difficulties are anticipated and acknowledged by Cheng, I think they pose a greater threat to the application of the Consensus Rule than he recognizes. For example:

• What is agreed within an expert community depends on how it is phrased. "Bold" claims with high evidential significance (e.g., claims that X causes Y) are likely to be associated with lower levels of consensus than with more "modest" claims (e.g., that some correlation between X and Y as been observed, or that something consistent with X causing Y has been observed).<sup>4</sup> In other words, jurors may need to distinguish between competing expert claims from within the *same* 

<sup>2.</sup> Id. at 434-35 (emphasis added).

<sup>3.</sup> See Harry Collins, The Owls: Some Difficulties in Judging Scientific Consensus, 67 VILL. L. REV. 877 (2022).

<sup>4.</sup> For an early analysis of this idea, see Trevor Pinch, *Towards an Analysis of Scientific Observation: The Externality and Evidential Significance of Observational Reports in Physics*, 15 Soc. Studs. Sci. 3 (1985). For a more recent application of the same idea to scientific advice, see Robert Evans, *SAGE Advice and Political Decision-Making: Following the Science' in Times of Epistemic Uncertainty*, 52 Soc. Studs. Sci. 53 (2022).

community about the content and strength of the consensus to which they should defer.

- Practical problems rarely reside in single scientific disciplines. In many cases that come before courts, determining which scientific community has the most relevant consensus will itself be a subject of controversy. Scientific disciplines vary in methods and theories, with each foregrounding a slightly different aspect of the problem.<sup>5</sup> It is, therefore, entirely possible that competing-but-contradictory "facts," all of which are held with some degree of consensus by at least one expert community, will be presented to the court. In this all-tooplausible scenario, jurors seeking to determine the consensus to which they should defer now find themselves having to choose between *different* expert communities.
- Science may not be the only source of expertise. Where the source of relevant expertise is contested, this controversy is likely to include the question of whether expertise from outside the scientific community is also relevant. In these cases, non-scientists with substantial experiential expertise in a relevant domain of practice—what we call "experience-based experts"<sup>6</sup>—can legitimately challenge the extent to which scientific research captures all relevant knowledge.<sup>7</sup> Again, the outcome is that, to determine the consensus to

6. Harry M. Collins & Robert Evans, *The Third Wave of Science Studies: Studies of Expertise and Experience*, 32 Soc. Studs. Sci. 235 (2002).

<sup>5.</sup> Donald MacKenzie's work in the development of intercontinental ballistic missiles introduces the idea of the "certainty trough" to explain how the uncertainty associated with claims about the accuracy of missiles varies as a function of "social distance" from the research front. *See* DONALD A. MACKENZIE, INVENTING ACCURACY: A HISTORICAL SOCIOLOGY OF NUCLEAR MISSILE GUIDANCE (1990); My-anna Lahsen, *Seductive Simulations? Uncertainty Distribution Around Climate Models*, 35 Soc. STUDS. SCI. 895 (2005). More cynical and systematic attempts to misrepresent consensus are documented in NAOMI ORESKES & ERIK M. CONWAY, MERCHANTS OF DOUBT: HOW A HANDFUL OF SCIENTISTS OBSCURED THE TRUTH ON ISSUES FROM TO-BACCO SMOKE TO GLOBAL WARMING (2010).

<sup>7.</sup> There are many, many examples of this within the STS literature, with both the methodological and value choices that are in intrinsic part of scientific research being challenged. Much cited and iconic examples include: Brian Wynne, *Misunderstood Misunderstanding: Social Identities and Public Uptake of Science*, 1 PUB. UNDERSTANDING SCI. 281 (1992); STEVEN EPSTEIN, IMPURE SCIENCE: AIDS, ACTIVISM, AND THE POLITICS OF KNOWLEDGE (1998); ALAN IRWIN, CITIZEN SCIENCE: A STUDY OF PEOPLE, EXPERTISE, AND SUSTAINABLE DEVELOPMENT (1995); HEATHER E. DOUGLAS, SCIENCE, POLICY, AND THE VALUE-FREE IDEAL (2009); HELEN E. LONGINO, SCIENCE AS SOCIAL KNOWLEDGE: VALUES AND OBJECTIVITY IN SCIENTIFIC INQUIRY (1990). More recent examples include: Wendy Wagner, *The Consensus Rule: Lessons from the Regulatory World*, 67 VILL. L. REV. 907 (2022); GWEN OTTINGER, REFINING EXPERTISE: HOW RESPONSIBLE ENGINEERS SUBVERT ENVIRONMENTAL JUSTICE CHALLENGES (2013); Kyle Whyte, *Too Late For Indigenous Climate Justice: Ecological and Relational Tipping Points*, 11 WIRES CLIM. CHANGE e603 (2020).

which they will defer, jurors must choose, only now they must choose between different *types* of experts as well.

In other words, given that content, strength, and scope of consensus can all be made into a subject of controversy, there is a danger that adopting the Consensus Rule will return legal proceedings to the pre-*Daubert* state of endless warring experts. The only change will be that the battle-ground has shifted from whether *X* causes *Y* to whether the relevant community (whoever and whatever they are) are sure they believe that *X* causes *Y*.

I suspect Cheng would argue that this is no problem because, as stated in the quote above, he assumes these determinations require no specialist expertise. The difficulty with this claim is that, if these lay judgments do not depend on specialist expertise, they must depend, instead, on the "external meta-expertise" he questions when criticizing the *Daubert* process<sup>8</sup>:

External meta-expertise basically consists of the everyday expertise that people use to distinguish liars. In some sense, resorting to these skills and techniques is both understandable and promising. Devoid of other options, jurors naturally fall back on techniques that they both know and are comparatively competent in. The problem, however, is that those everyday techniques do not transfer well to the expert context, which is why jurors are mocked for focusing on an expert's tie or appearance. Everyday cues and stereotypes, perhaps half-useful (and even then deplored) in assessing the honesty of a salesperson or the danger presented by the person lurking at a street corner, have even less probative value in assessing expert testimony.<sup>9</sup>

Cheng's argument seems to be that relying on external meta-expertise is a poor method for judging expert claims about expert practices but is perfectly adequate for choosing between competing expert claims about expert beliefs. I think he is right about the first part but not about the

<sup>8.</sup> This distinction between specialist expertise and meta-expertises is set out in HARRY M. COLLINS & ROBERT EVANS, RETHINKING EXPERTISE (2007). In summary, specialist expertises are those that can only be acquired by participation in the relevant community and which are not, therefore, available to everyone due to the opportunity cost of participation; time spent training to be a plumber, for example, is time that can't be spent training to be a lawyer and vice versa. In contrast, meta-expertise is the "expertise about expertise" that is needed to function in a society with a specialized division of labor. External meta-expertises are the sub-set of these skills that acquired simply by virtue of being a member of a society and in the absence of any participation in the relevant specialist group. To return to the example of plumbers and lawyers, external meta-expertises are what lawyers and plumbers must rely on when employing the services of the other. To see the difference between the two, think of all the additional expertise each would bring to evaluating the work of their own profession.

<sup>9.</sup> Cheng, supra note 1, at 421.

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second part. The reason is that choosing between expert claims about expert beliefs is better done with some knowledge and understanding of the relevant communities, their practices, and their social organizationall of which are opaque to a genuine outsider.<sup>10</sup> It is precisely for this reason that Collins and Evans argue for a separate institution—they call it the Owls<sup>11</sup>—to produce authoritative determinations of consensus.

In summary, the Consensus Rule does not change the game as radically as Cheng hopes: the outcome is still that lay people must use generic social criteria about who to believe to make quasi-technical judgments about what to believe. The only difference from *Daubert* is that the weaknesses in the chain of inference are now clearer: they decide, using some generic everyday experience, which of several competing claims about the content, strength and relevance of a consensus to trust and then, given this, act "as if" a reliable fact has or has not been established. Making these judgments about what expert communities collectively know in a more reliable and authoritative way-i.e., in a way for which we might legitimately claim jurors are "epistemically competent"-requires more than external meta-expertise, but an adversarial legal process played out as a war of competing experts cannot provide this. As a result, scrapping Daubert hearings and replacing them with the Consensus Rule is unlikely to have the beneficial effects Cheng imagines.

### II. Admissibility Hearings

This is not intended as a counsel of despair or a defense of the status quo ante: the insight that motivates Cheng's argument—namely that courts should defer to the expert consensus rather than taking the role of expert themselves-remains sound. The question is, therefore, how best enact this aspiration. My suggestion is that, in seeking to abolish the admissibility hearing aspect of the Daubert process, as opposed to the specific tests it requires, Cheng has thrown the baby out with the bathwater. What is needed is a new kind of admissibility hearing, the purpose of which is to determine the content and boundaries of the admissible consensus testimony and direct the jury accordingly.

The rationale for this is that Cheng is wrong to argue that the determination of expert consensus requires no specialist expertise and can, therefore, be left to jury members with no cost. One obvious criticism of this suggestion is, as Cheng has noted, that judges are also lay persons and so equally unsuited to the task. Whilst there is some truth in this claim, it is also possible to argue that, at least in respect of the legal system, judges are not in the same position as lay jurors. For example, they have special-

<sup>10.</sup> This argument is set out in more detail in Martin Weinel's contribution to this volume, The Adversity of Adversarialism: How the Consensus Rule Reproduces the Expert Paradox, 67 VILL. L. REV. 893 (2022).

<sup>11.</sup> For more on "The Owls," see HARRY M. COLLINS & ROBERT EVANS, WHY Democracies Need Science (2017).

ist training and substantial experience of legal arguments, which means some form of admissibility hearing, loosely modelled on what Collins and Evans call the Owls, would be possible.

The first step is to set out what this new admissibility process—hereafter the "Consensus Admissibility Hearing"—that would take place pre-trial would be tasked with achieving. This can be summarized quite simply as providing the information needed for jurors to implement Cheng's amended inference rule.<sup>12</sup> In other words, if Rule 702A is adopted such that:

If the relevant scientific community believes a fact involving specialized knowledge, then that fact is established accordingly.<sup>13</sup>

Then the purpose of the Consensus Admissibility Hearing is to establish for the jury whether a relevant expert community believes a specific fact and, if so, how claims relating to that fact are to be treated by the court.

In making this determination, judges would need to hear and synthesize evidence or testimony from a range of different parties and make judgments about the domains of science and expertise that are relevant to the case in question. Whilst much of this will need only the most ubiquitous expertises (e.g., what is or is not a science), the Consensus Admissibility Hearing will no doubt focus on testing the boundaries of what is or is not relevant.<sup>14</sup> This will require more subtle judgments, informed by the testimony of expert witnesses, about the social relations, institutional networks, and intellectual history of the domain. Whilst judges may struggle to make these judgments unaided, it is arguable that a pre-trial admissibility hearing, in which the judge can direct proceedings more precisely and in which what is presented to the court is a synthesis and summary of the competing views, is a more suitable forum for this work than the adversarial setting of the trial. As Cheng puts it, when writing what this deference to consensus entails:

Deference is due neither to any random person claiming to be an expert, nor to someone merely sporting the right credentials. In fact, deference is arguably not due to any individual at all! Individual experts can be incompetent, biased, error-prone, or

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<sup>12.</sup> The existing FED. R. EVID. 702 this seeks to replace can be found at *Rule* 702. *Testimony by Expert Witnesses*, LEGAL INFO. INST., https://www.law.cornell.edu/rules/fre/rule\_702 [https://perma.cc/RU7S-8HXJ] (last visited Dec. 28, 2022).

<sup>13.</sup> Cheng, *supra* note 1, at 436.

<sup>14.</sup> The idea of ubiquitous expertises is set out in Collins & Evans, *supra* note 8. In this context, the idea of the "fractal model of society" is also important. The "fractal model" captures the idea that any individual will be a member of many different social groups, with the fractal character due to the fact that the expertise that characterizes each is acquired by the same mechanism: socialization. Ubiquitous expertises are the expertises associated with the largest, most general, social groups that sit at the "highest" levels of the fractal. For an accessible introduction to the fractal model, see HARRY M. COLLINS, FORMS OF LIFE: THE METHOD AND MEANING OF SOCIOLOGY 1 (2019).

fickle—their personal judgments are not and have never been the source of reliability. Rather, proper deference is to the *community* of experts, all of the people who have spent their careers and considerable talents accumulating knowledge in their field. If an individual expert is given our deference, it is only because they represent or provide evidence of what their community would say. The source of reliability is not the person, but the community behind him or her.<sup>15</sup>

In this sense, the Consensus Admissibility Hearing positions the expert not as an individual whose claim to legitimate expertise is being assessed, but as a key informant whose task is to report honestly on their community and its shared practices.<sup>16</sup> Deconstruction and cross-examination are, therefore, unnecessary as any competent member of the community would report the same, shared, beliefs and practices.<sup>17</sup>

The second step is to explain why this work should be given judges and not jurors. Whilst the following list is neither exhaustive nor definitive, it does show there are good grounds for believing that judges are better suited to this task:

- (1) Whilst judges cannot be free of unconscious bias, there is nevertheless the hope (and expectation) that legal training, guidelines, and experience should make them more aware of these effects than the typical lay person, and hence more reflexive about their own practice.
- (2) As part of their specialist legal expertise, judges can be expected to have a better understanding of the different epistemic criteria used in legal settings (e.g., beyond reasonable doubt, balance of probabilities, reasonable person, conformity, etc.) and to have had more experience of applying them.
- (3) As part of their specialist legal expertise, judges can be expected to have a better understanding of how different domains and kinds of expertise have been used and evaluated in similar cases and hence what precedents exist.<sup>18</sup>

<sup>15.</sup> Cheng, supra note 1, at 434 (emphasis added).

<sup>16.</sup> In the language of the movement in the sociology of science known as Studies in Expertise and Experience (SEE), the expert is functioning as a "probe." As any competent member of the discipline can do this, this should not be an insurmountable burden on the domain as, even if there are many trials and many judges wanting advice, there will also be many potential experts. For more on the idea of the probe and how a single individual can represent a group, see Harry M. Collins & Robert Evans, *Probes, Surveys, and the Ontology of the Social*, 11 J. MIXED METHODS RSCH. 328 (2017).

<sup>17.</sup> This is similar to medical malpractice cases where doctors, not jurors or judges, are asked to determine whether a clinical decision was reasonable. *See* Cheng, *supra* note 1, at 463.

<sup>18.</sup> An "extreme" case of this, in which specialist judges develop significant expertise in relation to traumatic brain injury, is described in Jaakko Taipale, *Judges' Socio-Technical Review of Contested Expertise*, 49 Soc. STUDS. Sci. 310 (2019). In

- (4) As part of their specialist legal work, judges will run many of these hearings and, whilst the specific content of each controversy may differ, it is likely that some transferable skills and knowledge can be developed.<sup>19</sup>
- (5) As part of their specialist legal work, judges will have developed substantial skills in synthesizing and "summing up" complex and competing testimonies for juries.
- (6) As part of their specialist legal work, judges already make admissibility decisions about other types of evidence and testimony.

To reiterate, the aim of this Consensus Admissibility Hearing is entirely consistent with Cheng's original proposal. The determination reached by judges establishes what the relevant expert community or communities believe to be the case and reports that to the jury, such that the modified Rule 702 can be applied. The likely outcomes of this process can be summarized as follows:

- The judge determines that there is a clearly defined field of expertise with a strong consensus about the existence of a particular fact or finding. In this case, the jury would be instructed to treat the fact as established for all practical purposes. A current example of such a "fact" is the claim that "DNA fingerprints" are unique and provide an unambiguous means of identification. Because the consensus is strong, neither plaintiff nor defendant would be able to call witnesses to challenge this fact, though they could still argue that relevant science or technique had not been used correctly (e.g., the particular sample had been contaminated in some way).
- The judge determines that there is a partial consensus, with some dispute about both the content of this consensus and the relevance (or not) of particular domains or disciplines (e.g., fingerprint identification). In this, perhaps the most likely, scenario, the judge would set out the contours of the consensus and the extent to which different views are shared across the expert communities. This outcome is what we would expect to see in the case of fingerprint evidence, for example, where there is both a community of fingerprint examiners who would argue for the reliability of fingerprint

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a similar way, judges can also be assumed to follow evaluations of forensic science and be aware of the ways in which the status of forensic techniques can change over time.

<sup>19.</sup> This might include what Collins and Evans call "technical connoisseurship," which is increased skill and refinement in the "consumption" of a specialist expertise that is gained without ever acquiring the practical skills needed to "produce" the knowledge or artifact. For more information, see Collins & Evans, *supra* note 8.

identification and a more critical community of academic scholars who would argue that this reliability has not been established.<sup>20</sup> Other, perhaps more politicized, examples might occur around toxic tort or similar cases where judges would need to determine whether experiential knowledge generated within particular communities would be admitted. Plaintiffs and defendants would then be able to call experts from any of the domains deemed relevant by the judge, with the weight attached to the testimony of these individuals determined by the judge based on its consistency with the consensus in their community and the overall standing of that community within the debate as a whole.

• The judge determines that there is no meaningful consensus within any credible expert community and hence rules that a putative expert be excluded from testifying, either in that capacity or even at all. Examples here include the long debunked pseudo-science of "voiceprint" analysis and, perhaps in the not-too-distant future, expertise in bite-mark identification.<sup>21</sup> Plaintiffs and defendants would remain able to call other witnesses as they see fit, but the direction from the judge would be that such testimony is simply that of an individual with no expert status and without the authority of any wider expert community.

In this way, many of the features of the U.S. legal system that Cheng wants to preserve are maintained—e.g., there is a substantial role for inperson testimony and cross-examination—whilst the worst excesses of the *Daubert* system are eliminated. Judges retain some gatekeeping functions but, by adopting the Consensus Rule reasoning, their task is now one for which their training and experience provide a more robust and reliable foundation.

### CONCLUSION

Cheng makes a provocative and powerful argument that legal proceedings would be enhanced if judges and juries deferred to expert communities when assessing the credibility of expert claims. Whilst an institution such as the Owls might be used to provide the information that judges and juries need to apply the Consensus Rule, the volume and speed

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<sup>20.</sup> See, e.g., Simon Cole, Who Will Regulate American Forensic Science?, 48 SETON HALL L. REV. 563 (2018); David Caudill, Toward a Sociology of Forensic Knowledge? A (Supplementary) Response to Cole, 48 SETON HALL L. REV. 583 (2018); Michael Lynch & Simon Cole, Science and Technology Studies on Trial: Dilemmas of Expertise, 35 Soc. STUDS. SCI. 269 (2005).

<sup>21.</sup> For a recent critique of forensic odontology, see Michael J. Saks, Thomas Albright, Thomas L. Bohan, Barbara Bierer, C. Michael Bowers, et al., *Forensic Bitemark Identification: Weak Foundations, Exaggerated Claims*, 3 J.L. BIOSCIENCES 538 (2016).

of legal decision-making makes such an approach impractical. Cheng's suggestion is that the entire process be devolved to juries (or judges in non-jury trials), with admissibility hearings abandoned in favor of direct decision-making by jurors (or judges in a non-jury trial) operating with a new inference rule—the so-called Consensus Rule.

Whilst agreeing with Cheng that change is desirable, I have argued that consensus is a more complex phenomenon than the Consensus Rule recognizes. As a result, implementing his proposal risks an expansion of the war of experts that already characterizes the U.S. legal system and, in the worst case, gives an enhanced platform for so-called "junk science," as consensus rather than causation becomes the target of adversarial deconstruction. In contrast, I have argued that revised admissibility hearing, in which the ubiquitous and specialist expertise of judges is used to report the nature and extent of consensus to the court, is needed. Such an approach would preserve the core insights and values of the Consensus Rule but provide a more reasonable and better justified foundation for its operation. It will not be easy, and it will not be perfect, but it might, just, be better.

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