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STANDING UP TO STANDARD AUTHORITY

Statements contained in learned treatises can be powerful evidence on both direct and cross-examination.

In Connecticut, statements contained in a published treatise may be admissible as full exhibits supplying substantive evidence for the jury's consideration. The key to their admissibility is establishing that the publication is "recognized as a standard authority in the field." This frequently begins with a demonstration that the paper was peer reviewed. However, whether a publication was peer reviewed is not the end of the inquiry. Peer review alone does not make a treatise authoritative.

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hether you are advocating for or against the admission of a publication, there are issues you should be aware of pertaining to the concept of whether the article is a standard authority. These issues include peer review, the identity of the journal, the professional pedigree of the editor, author and co-authors, the year of its publication, whether the article in fact accomplishes what it claims to accomplish, and whether the article accomplishes what the opposing expert says it accomplishes. This article explores these factors.¹

Rule 803 of the Federal Rules of Evidence recognizes an exception to the hearsay rule upon the establishment of a treatise as a reliable authority. It provides in part:

The following are not excluded by the rule against hearsay, regardless of whether the declarant is available as a witness:

(18) Statements in Learned Treatises, Periodicals, or Pamphlets. A statement contained in a treatise, periodical, or pamphlet if: (A) the statement is called to the attention of an expert witness on cross-examination or relied on by the expert on direct examination; and (B) the publication is established as a reliable authority by the expert's admission or testimony, by another expert's testimony, or by judicial notice.

While the federal rule uses the term "reliable," other jurisdictions use the terms "standard authority" or "authoritative." Regardless, the principle is similar: out-of-court statements from an authoritative text may be used to cross-examine a defense expert's opinion or to buttress the opinion of your expert.² As per the rule, the foundation for admission of a learned treatise may be established by the proponent's own witness, another expert witness' testimony or by judicial notice. Connecticut, however, takes a broader approach than most other jurisdictions in that we allow the treatise itself to be admitted as a full exhibit and taken into the jury room during deliberations.³ By doing so, the jury is given the opportunity to assess the context of the statements in the publication. This is our rule, despite the danger of misunderstanding or misapplication by the jury.

There are at least five areas of inquiry to pursue when dealing with the issue of the authority of a learned treatise:

- 1. Was it subject to the peer review process?
- 2. Was the peer review process rigorous and independent?
- **3.** Is it a meta-analysis or original scientific research?
- 4. Is this a "white paper" expressing poorly validated opinions?
- 5. Does the content include statements that are unduly prejudicial?

Was there peer review?

When the United States Supreme Court decided *Daubert v. Merrell Dow Pharmaceuticals, Inc.*,⁴ the importance of peer review of published scholarly papers involving scientific theories and techniques took on increased importance. Justice Blackmun, writing for the Court stated:

Publication (which is but one element of peer review) is not a sine qua non of admissibility; it does not necessarily correlate with reliability ... and in some instances well-grounded but innovative theories will not have been published... Some propositions, moreover, are too particular, too new, or of too limited interest to be published. But submission to the scrutiny of the scientific community is a component of "good science," in part because it increases the likelihood that substantive flaws in methodology will be detected....The fact of publication (or lack thereof) in a peer-reviewed journal thus will be a relevant, though not dispositive, consideration in assessing the scientific validity of a particular technique or methodology on which an opinion is premised.

Peer review of a publication has remained one of the principal factors considered by trial judges sitting as gate keepers to the admission of learned treatises. In fact, many state courts have since adopted standards comparable to those adopted in *Daubert* to include this factor explicitly.⁵ While the peer review label may help in elevating a publication that might not otherwise appear scholarly to the necessary level of authority needed for

admission, it alone is not enough. Too often attorneys mistakenly assume that demonstrating an article was peer-reviewed is all it takes to garner admission. It does not. The science in each paper must stand on its own.

Not all professional journals, books and book chapters are subject to the same peer review process. Generally, rigorous peer review, together with scrupulous editing, are essential aspects of the quality control process. At times you may have reliable information that undermines some aspect of an article or points to obvious deficiencies in its research. But most often you do not, in which case it may be uneconomical to undertake an all-out direct assault on the peer-reviewed publication.

One such example where a wholesale attack may be launched by you (when, incredibly, defense experts still rely on the publication) is presented by the article Guidelines for the Ethical Use of Neuroimages in Medical Testimony: Report of a Multidisciplinary Consensus Conference.6 This article purported to be a consensus report of an interdisciplinary (neuroradiologists, neurologists, forensic psychiatrists, neuropsychologists, neuroscientists, legal scholars, statisticians, judges, practicing attorneys and neuroethicists) conference regarding the use in legal matters of diffusion tensor imaging (DTI) in the diagnosis of mild traumatic brain injury (TBI). However, following the conference, verbal reports emerged to indicate that its findings were, in fact, inconclusive. Controversy swirled around the Guidelines article because it was felt that there was no consensus among the conference's participants. Attorney William Jungbauer wrote an article in 2014 exposing this fact.⁷ In May 2017, the Guidelines article's second author, Gordon Sze, M.D., testified that only the votes of the neuroradiologists and neurologists - not the other professionals present - were counted toward making up the supposed consensus. Further, lead author Meltzer was, for all intents and purposes, solely responsible for not only the text of the article, but also its limited selection of supporting citations.^{8, 9, 10}

The point is this – refrain from assuming that, simply because an article is peer reviewed, it is unassailable. Get your hands on whatever you can to attack it. But absent the type of extensive fodder for cross-examination available in the above example, other means may be equally worthwhile.

Was the peer review rigorous and independent?

There are multiple factors to consider in the peer review process beginning with the identities of the reviewers – if you can ascertain them. While the identities of most mainstream journal reviewers are unknown, and articles are generally submitted to the reviewers blind to avoid bias, some fields are so limited that someone well-versed in the topic may be able to suss out the identity of one or more of the reviewers.¹¹ Several of the open-access journals identify their reviewers. If you know a reviewer, you can cross-examine his assessment of the article on several bases:¹²

- 1. Identification of the hypothesis and the null hypothesis
- 2. Institutional Review Board compliance
- 3. Type of study (random control trial, cohort, case controlled, case report, mechanism-based reasoning)
- 4. Selection of the comparison groups
- 5. Reproducibility of the findings
- 6. Identification of instruments and methods
- 7. Use of most current standards and literature
- 8. Scientific support of conclusions
- 9. Limitations of conclusions

"Impact factor" measures the relative scholarly importance of each journal by the frequency with which the average article in the journal was cited in a specific year. A lower impact factor reflects a lower status. Thus, impact factor may suggest a potential vulnerability of an article.

Is it a meta-analysis or original scientific research?

Most of us learned about the scientific method in school. You do not need to be a scientist to spar with one in court. While experts often know more about the medicine than counsel, challenging the *method* an expert used to get to his opinion is a good place to start on cross. The opposing expert should be forced to answer specific questions to reveal each step of his methodology. If you find that, in truth, he jumped to his conclusion, rather than reasoned his way there, it is a good time to pounce.

Generally, it is rare that entirely new scientific discoveries will arise from a scientific approach developed for your cases. More commonly, experts apply known methodologies to analyze the data in a given situation, e.g., opinions by a toxicologist regarding alcohol consumption, opinions by an accident reconstructionist regarding the mechanisms of the crash, or opinions by a metallurgist regarding medical device failure. Thus, most disagreements among competing experts relate to the application of known science to the particular set of facts of your case.

If the article relied upon is a meta-analysis (that is, an examination of data from several independent studies of the same subject to determine overall trends), then it should systematically combine relevant qualitative and quantitative data. A meta-analysis attempts to reflect combined data and consistent conclusions about a methodology to provide statistical significance. A meta-analysis paper must set forth its 1) objective, 2) data source, 3) study selection, 4) data extraction, 5) data synthesis, and 6) conclusions. If it does not, these are grounds for challenging it.

Alternatively, a paper may present a novel scientific approach or build on an existing approach to reach new conclusions. Such assessments in health care often refer to evidence-based medicine, which is the conscientious, explicit, judicious and reasonable use of modern, best evidence to make decisions regarding the care of individual patients.¹³ The most prominent model for evaluating evidence-based medicine is the *Oxford Centre for Evidence-Based Medicine* (OCEBM).¹⁴ Among the completed projects of the OCEBM is a classification system to rank the quality of scientific studies for use in health care based upon their authority and reliability. Thus, to assist in determining whether a learned treatise is a standard authority in the field, you may want to consider how it is classified using the OCEBM.¹⁵



Is this a "white paper"?

A white paper is a report or guide that informs the reader concisely about a complex issue and presents the issuing body's philosophy on the matter. The level of authority of each white paper must be evaluated carefully. Some white papers covering original scientific research including a randomized double-blind placebo-controlled study or a randomized controlled study may be quite authoritative. These types of studies generally 1) enumerate a hypothesis, a null hypothesis and often an alternative hypothesis, 2) describe a methodology, 3) provide inclusion and exclusion criteria, 4) summarize the data, and 5) make conclusions addressing the significance of the findings. On the other hand, some white papers represent only institutional policy or the views of a small group. The authority of some white papers may be measured in part by the prestige of its authors or by its sponsoring organization. However, the relative reliability of a white paper ultimately depends upon the process by which it was evaluated, edited and published. Understanding these processes requires an understanding of the underlying science and the goals sought to be achieved by the article's author.¹⁶

- 1 Recently, the Connecticut Supreme Court in Filippelli v. St. Mary's Hospital, 319 Conn. 113 (2015), approved the use of an article from a journal, based upon establishing that the journal in which the article was included (but not the specific article) was a standard authority. This was a matter of first impression for the court. In reaching its decision, the court reviewed the prior Appellate Court authority, *Musorofiti v. Vlcek.*, 65 Conn. App. 365, cert. denied, 258 Conn. 938 (2001), and ultimately agreed that there should not be a per se rule, rather, "there may be circumstances in which a particular periodical is so highly regarded within a field that all articles published therein would be admissible as a learned treatise." Thus, while there may be some journals that convey gravitas and reliability simply by their name and prestige, e.g., the New England Journal of Medicine or Neurology aka the Green Journal this article addresses the methods that can be used to lay a proper foundation for the admission of specific articles.
- 2 See Connecticut Code of Evidence § 8-3(8), which provides: "The following are not excluded by the hearsay rule, even though the declarant is available as a witness:...(8) Statement in learned treatises. To the extent called to the attention of an expert witness on cross-examination or relied on by the expert witness in direct examination, a statement contained in a published treatise, periodical or pamphlet on a subject of history, medicine, or other science or art, recognized as a standard authority in the field by the witness, other expert witness or judicial notice." (Italics added.)
- 3 See, e.g., Cross v. Huttenlocher, 185 Conn. 390, 395-6 (1981).
- 4 509 U.S. 579, 593-594 (1993); see also State v. Porter, 241 Conn. 57, 85-86 (1997), cert denied, 523 U.S. 1058 (1998).
- 5 See, e.g., E.I. du Pont de Nemours and Co., Inc. v. Robinson, 923 S.W. 2d 549, 554-560 (Tex. Supreme1995).
- 6 Meltzer, C. C., et al., American Journal of Neuroradiology, April 2014, 35 (4): 632-7.
- 7 "Daubert, Frye and DTI: Hijacking the Right to Trial by Jury", *AJOB Neuroscience*, 5(2): 16-23 (2014); DOI:10.1080/21507740.885096, ISSN: 2150-7750 on line.
- 8 The Guidelines article was in no way a consensus document. Further, it failed to include even a minority report framed by the attorney and judge attendees concerning how the Daubert gatekeeper standards should be applied to the use of DTI. As Dr. Sze explained, credit for co-authorship was generously allocated. For example, his contributions included some of the organization of the meeting and review of the manuscript.

Does the paper contain evidence that is unduly prejudicial?

Presumably, all evidence offered by your adversary is prejudicial to your case, but the test to exclude prejudicial evidence is whether the evidence is "unduly" prejudicial. Undue prejudice comes in many forms. It is imperative that such undue prejudice not be masked by the labels "peer review" or "standard authority." Consider the amount of prejudice posed by the articles in your case. If it is unduly prejudicial, this may be enough to keep it out. The offensive and defensive use of learned treatises in a courtroom can be intimidating. Anyone who has wrestled with scientific literature in the courtroom knows that the threshold for the article's admissibility, "standard authority," may not be particularly high in practice. The less reliable and more prejudicial an article is, the more likely you will be able to preclude it, restrict its use, or limit its effect. With these helpful tools, you should be able to dig deeper into deconstructing and reconstructing the concept of what constitutes a "standard authority." •

- 9 Two other revelations during Dr. Sze's testimony were: 1) the invitation list for the symposium was fairly random and did not include luminaries in the field of DTI including Andrew Walker, M.D., Erin Bigler, Ph.D, and Michael Lipton, M.D., Ph.D.; and 2) the symposium on DTI was prompted by complaints of some neuroradiologists who had been retained as defense experts in mild traumatic brain injury cases and who obviously did not understand the evidentiary issues.
- 10 Note that the science of DTI is well established. The contention rests with the application and use of DTI to aid in a TBI diagnosis. Thus, the controversy is less about *Daubert/Porter* and more about identifying white matter structural damage in the context of the complex mosaic assembled as part of a probabilistic clinical diagnostic approach.
- 11 In the fields of neuropsychology and "effort testing" (malingering), there are very few qualified reviewers. If this is an issue in your case, note that it is such a controversial subject because no test can verify intentionality; which is the sine qua non for identifying a malingerer. See Bigler, E.D., "Effort, symptom validity testing, performance validity testing and traumatic brain injury," Brain Injury, 2014; 28(13-14): 1623-8. Rather than malingering, poor performance on neuropsychological testing can be attributed to comorbidities, co-occurring injuries and injury to one or more structures in or impacting the limbic system.
- 12 Voight, M.L., "Publishing Your Work in a Journal: Understanding the Peer Review Process," Int J Sports Phys Ther., 2012 Oct; 7(5): 452.
- 13 "Evidence-based medicine: what it is and what it isn't," D. L. Sackett et al., The BMJ. 1996 Jan 13; 312(7023):71-72.
- 14 The OCEBM is an internationally recognized organization based at the University of Oxford in Great Britain. "The Centre for Evidence-Based Medicine aims to develop, teach and promote evidence-based health care through a variety of methods so that all health care professionals can maintain the highest standards of medicine."
- 15 There is an evidence-based medicine classification system published by the American Academy of Neurology. Edlund, et al,. "Clinical Practice Guideline Process Manual", 2004 Edition.
- 16 Under OCEBM criteria, a white paper represents the lowest weighted category – mechanism-based reasoning. Moreover, the publication of a white paper in a journal known to engage in some level of peer review does not make the white paper more scientific, reliable or authoritative.