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Forensic Science: Complex admissibility standard for scientific evidence and expert witness` testimony.

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Abstract

Modern science forces the world to accept new theories and invention. Science has invented several tools, which are used in the legal system to dispute criminal cases. Scientific evidence and expert witness testimony have weight in the courtroom because those are scientifically proved to be true. Even though there are few case laws and Federal rule of evidence 1975, still the admissibility standard is complex which may lead injustice.

This article examines the Federal rule of evidence, case laws and scholars` opinion to address the complexity of the admissibility standard of scientific evidence and expert testimony. The first legal question raised relating the admissibility standard was *Frye v. United States (1923)* where the court ruled that any scientific method or practice must be generally accepted by the scientific community at large. The First Federal rule of evidence was adopted in 1975. In 1980`s scientific scholars began to questioning the authenticity of the admitted scientific evidence saying "the kind of expertise regularly accepted as admissible by courts was, frankly, 'junk' of scandalous lack of dependability." To address the problem of "junk science" in the courtroom, the United States Supreme Court decided *Daubert v. Merrell Dow Pharma, Inc. (1993)* In this case the Court addressed a new standard for determining the admissibility of scientific evidence in the federal courts of the U.S.

After examining the case laws and statutes, it revealed US has legal system has complex admissibility standard for scientific evidence and expert witness interpreted by the judges and may serve injustice to innocent people.

Material and Methods

- Several Scholarly Articles
- Common law or case law, which is created by a judicial body such as the Fourth Circuit Court of Appeals or the Virginia Supreme Court.
- Statutory law, which is created by a legislative body, such as the U.S. Congress or the State of Maryland General Assembly.
- Regulatory law, which is created and enforced by an administrative body, such as the U.S. Department of Labor or the State of Michigan Fair Employment Practices Commission.

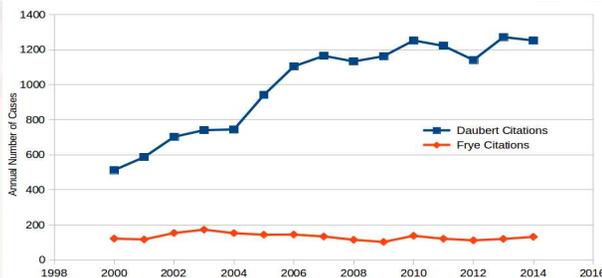


Figure-1

Findings

Criticism of Frye:

The Frye standard exclude valuable and novel scientific evidence and expert testimony simply because the evidence or expert`s theory is too new or unique to have had the time or opportunity to meet the "general acceptance" standard. In addition, Frye is inconsistent with modern science and laws of evidence, which allow for the liberal admissibility of opinion evidence.

According to Professor Giannelli, "the heavy burden demanded by the Frye test deprives courts of relevant evidence. One court has gone as far as to claim that Frye thrusts "an unjustifiable obstacle" to the admission of scientific evidence." such an "obstacle" before the admission of scientific evidence may interfere with a defendant's constitutional right to present a defense.

Rule 702 of the Federal Rules of Evidence provides:

A witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise. Rule 702 did not provide any guidance that expert testimony should depend on general acceptance, also, Congress didn't intend to incorporate the Frye standard into Rule 702.

Under Rule 702, expert testimony is admissible when (i) generally accepted in the scientific community. (ii) subjected to peer review and publication. (iii) tested or can be tested. (iv) potential or known rate of error is acceptable. In addition, it provided discretionary power to trial judges to resolve disputes among the respected and credentialed scientists about matters within the scientist`s expertise and to reject testimony if it is not obtained by the scientific method.

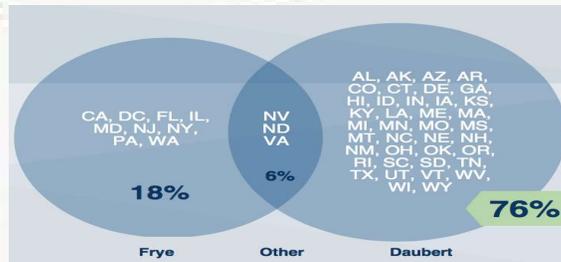


Figure-2

Daubert Standard:

On June 28, 1993, the US Supreme Court announced its decision in *Daubert v. Merrell Dow Pharma, Inc.*, setting a new standard for admission of novel science and expert testimony. The court held that Frye was no longer the governing standard to determine the admissibility of evidence after Congress enacted the *Federal Rule of Evidence* in 1975. The Court reasoned that when common law rules conflicts with provisions of the Federal Rules, the enactment of the Rules eventually supersede the common law. The court ruled that to become admissible, the expert must demonstrate precisely how they reached their conclusions and the scientific method followed by the experts is practiced by at least a recognized minority in their field.

Case

Coppolino v. State, 223 So.2d 68 (FL 2nd Dist, 1968)

Coppolino v. State is a case critical of Frye and supportive of his "relevancy" approach. In *Coppolino*, the jury found the defendant, Dr. Carl Coppolino, guilty of second degree murder. The defendant, appealed. In *Coppolino*, the state postulated that the victim, Mrs. Coppolino, had died as a result of an injection of succinylcholine chloride and sought to introduce at trial evidence of a test performed by Dr. Umberger, a toxicologist, to show the presence of this chemical in the body tissue. The defense presented their own expert who disagreed as to the validity and accuracy of the test. The issue on appeal was whether the trial court should have admitted evidence of the test. On appeal the court made reference to Frye but held "it is incumbent for the defendant to show that the trial judge abused his discretion. This the defendant has failed to do."

Statewide Comparison:

Every states have incorporated their own rule of evidence for admissibility of scientific evidence and expert testimony. A state may choose to follow Frye, Daubert, or some combination of the two. This creates confusion, hindering an attorney`s ability to select an expert witness. For example, *New York* still follows *Frye* but *Connecticut* follows *Daubert*. (Figure 2)

Conclusion

The Frye "general acceptance" standard remains the most authentic to admit novel scientific and expert witness testimony. However, science has evolved and scientist and experts have developed new theories and experiment. By reviewing history of recalcitrance, to comply with modern science the congress and Judicial body should consider enacting new admissibility standard which will supersede all previous conflicts. Rule 702 should be amended to secure the promise of justice and effectively protect future litigants and juries from the powerful and quite misleading impact of unreliable expert testimony.

References:

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