JUNK SCIENCE OR …. EXPERT TESTIMONY?

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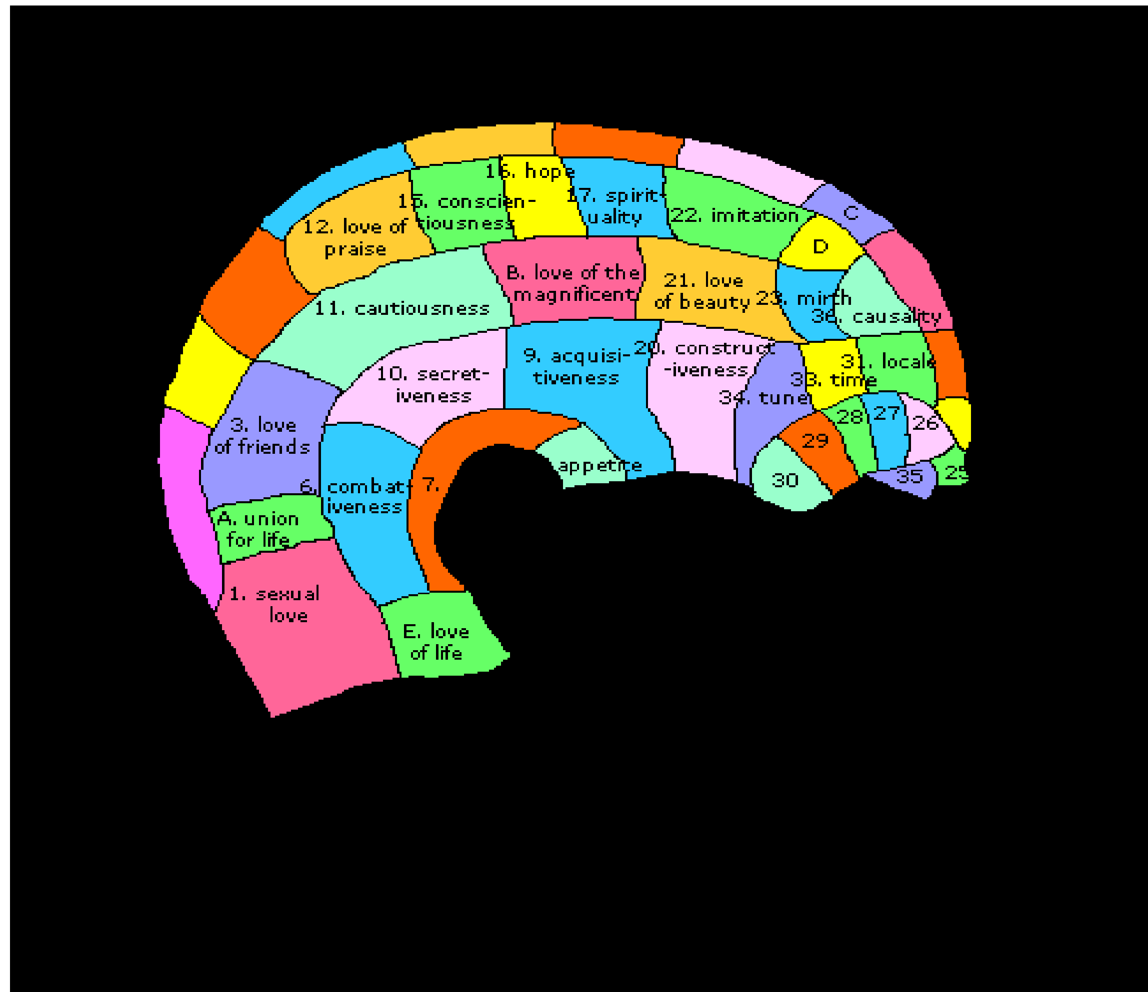
When are experts' views valid?



Issues of "competency" include:

- Testamentary capacity
- Involuntary commitment
- Ability to consent to participate in research
- Sign a contract
- Serve as a witness
- Claim the insanity defense
- Mitigate punishment based on diminished capacity
- Represent self in a criminal trial
- Obtain a reasonable accommodation due to disability

No bright lines, so call on “experts.”

- Many standards are subjective and require consideration of the context, what’s at stake, “normalcy” of action, etc.
- Courts and public are hungry for expertise on this and many scientific and technical issues.

What "opinion" is worth listening to?

- How about the "smile-o-metrics" theory being used to determine whether you get CME credit for this session?
- Study found that physicians who appear to doze or to smile often ***at their laptops*** are not paying attention to the speaker.

- Physicians with good eye contact and who were typing following the lecturer's key points were found to have better comprehension (and thus would get CME credits).

“The Twinkie Defense”

- Dan White shot and killed mayor of San Francisco and city supervisor Harvey Milk.
- He avoided a murder conviction after psychiatrists claimed that he suffered **diminished capacity** from eating too much junk food.
- The experts said the sugar caused a chemical imbalance in his brain.
- The jury agreed.
- Satirist Paul Krassner coined the phrase.

So, what are the rules in court?

- For years, courts have struggled with what is valid expert testimony.

- For many years, the **federal** courts used a rule that if a scientific method was **“generally accepted”** in its field, then testimony based on that method was admissible.

The "Frye Rule" or "Frye Standard."

- This came from a case, Frye v U.S. (lie detector test).
- 1923 decision of the Ct of Appeals of the District of Columbia, ruling upon the admissibility of a "systolic blood pressure deception test."
- The court ruled the test inadmissible.

Congress Adopts a Set of Rules

- In 1975, Congress adopted the Federal Rules of Evidence, which govern what can be used in evidence in a federal trial.
- The rules determine what is "competent" evidence.
- Most states adopted very similar rules – often verbatim.

Rule 702 of the Rules of Evidence

- If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion.

How about in North Carolina?

- NC was looser about allowing "expert testimony" before that and remained more liberal than most states for many years.
- Our courts said that it's enough for the expert witness to be "in a better position" to have an opinion on the subject than is the trier of fact.
- Courts asked: Is the witness' skill, experience, training or education going to be **"helpful" to jurors?**

Daubert v Merrill Dow Pharmaceuticals.

- 1993, U.S. Supreme Ct. issued a decision that changed the rules about expert witnesses.

- The Daubert decision involved allegations that the anti-nausea drug Bendectin caused birth defects.

The 4 requirements of Daubert

1. Evidence must be relevant.

2. From some scientific, technical, or specialized area that is outside the common experience of a jury.

3. The witness has to be qualified by knowledge, training, skill, education, or experience.

- *AND THE MOST CONTENTIOUS…….*

4. The testimony must be **reliable.** The judge, with wide wide discretion, makes an assessment of whether the reasoning or methodology is **scientifically valid.** Court considers:

- Has the theory or technique been tested,
- Has it been subjected to peer review and publication,
- What's the error rate;
- What standards exist that govern or control the technique; and
- To what degree has the theory by accepted or adopted by the relevant scientific community.

Daubert

- Trial judge – ruled the S. Ct. - was supposed to be a gatekeeper, keeping out **junk science.** This meant that some cases ended right there, w/o expert witnesses.
- For years, NC took a different approach, and was more liberal in letting in expert testimony. This meant the jury had to figure out what's junk (weak) and what's not.
- This approach counted on the lawyers to show the weaknesses of a so-called expert's testimony.

Criticisms of Daubert

- Plaintiffs, who have the burden of proof, found that Daubert was often used to strike their experts. Though Daubert said the gatekeeping function should be flexible, it became a checklist.
- With technology changing so rapidly, there's not always an accepted scientific method to test something.
- First "expert" should be able to show her science is good, whether or not generally accepted in scientific community.
- Judges usurped role of jury.

NC Supreme Ct Rejects Daubert Approach

- The N.C. case – Howerton v Arai - happened to involve a witness who attended WFU Law School.
- He was a neurosurgeon who came to law school, after practicing medicine for years.
- He's now a lawyer in W-S, Dr Charles Rawling.

- Dr Bruce Howerton Jr, a dentist, was experienced in motocross. He had a collision with another rider on a track, went over the front of his bike, and landed on the back of his neck. He was taken by helicopter to the hospital where it was discovered that he had fractures to his C5 and C6 cervical vertebrae. He became a quadriplegic, as a result.
- Dr Howerton was wearing a helmet manufactured by Arai.

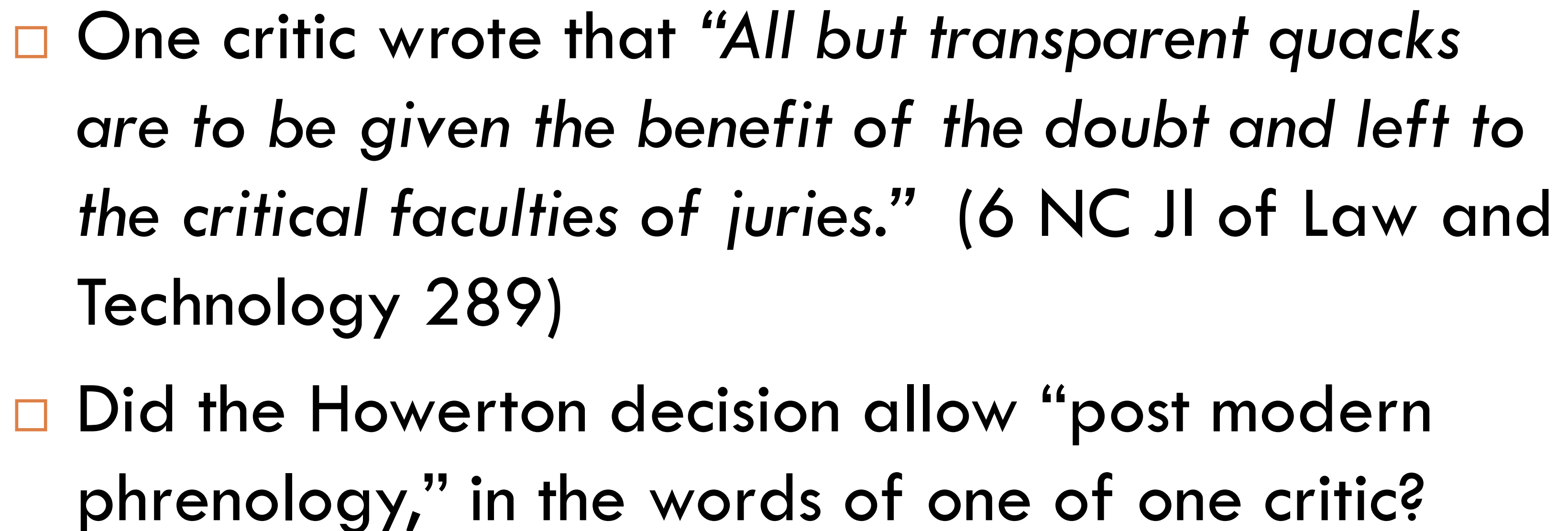
- Dr. Howerton sued the helmet manufacturer, claiming the chin guard was a defective and dangerous design. 4 experts were offered by the plaintiff:
  - U. of Southern Cal head protection researcher with 25 years experience;
  - Dr Charles Rawling, the WFU law student and Duke Med School grad who had been board certified in neurosurgery, and
  - 2 others.

- Trial court would not allow any of the experts to testify. Said NC followed Daubert rule and that the 4 experts' testimony as to causation was unreliable and inadmissible. Threw out Dr Howerton's case. (on summary judgment)
- Court of Appeals agreed.
- But NC Supreme Ct overturned decision.

NC Supreme Court

- Court said there's a difference between the *admissibility* of evidence, as determined by judge, and it's *weight*, as determined by jury.
- It ruled that our state **doesn't** require expert testimony to be proven "conclusively reliable or indisputably valid" before it can be admitted into evidence.
- Sent the case back and it was tried in Oct. 2004, with the experts being **allowed** to testify. Case ultimately settled.

- Seen as a victory for the **plaintiffs' bar,** because they viewed it as giving people their "day in court." Others viewed this as making NC unclear and overly permissive, and letting in "junk science." They felt that it's burdened juries, which often include folks with limited education, by giving them the job of figuring out what's junk science.
- Jurors also tend to be deferential to "experts" with advanced degrees and impressive resumes.


One critic wrote that *"All but transparent quacks are to be given the benefit of the doubt and left to the critical faculties of juries."* (6 NC Jl of Law and Technology 289)
Did the Howerton decision allow "post modern phrenology," in the words of one of one critic?

Daubert rule comes to N.C.

- In 2011, NC amended its Rule 702 to tighten the requirements for admitting expert testimony.
- In three decisions since then, the NC Court of Appeals has interpreted these rules.
- In 2014, the Court ruled in <u>State v Grady.</u>

State v Grady

- Grady convicted of shooting and killing his cousin.
- Trial judge **kept out** his key expert witness, regarding self-defense.
- Witness **would have testified** that the victim had shown some physiological and circumstantial "pre-attack cues" that were "consistent with exhibition by an individual that an attack was likely imminent."

Who was the witness?

- No medical degree or medical education.
- Had testified about having read published articles and having gotten training by some of the authors of those articles.

Why was opinion excluded?

- Based on medical knowledge he wasn't qualified to discuss;
- Not helpful to the jury;
- Not competent to testify about reaction times;
- Not based on *sufficient facts or data;*
- *Not the product of reliable principles or methods;*
- Not subject to peer review; and
- Based on speculation. *(italics = added in 2011)*

Take home message

- Our state trial court judges now have wide discretion to determine whether "expert" testimony is reliable enough to be admitted into evidence.
- Less power for juries?
- Fewer complexities for juries?
- More scrutiny of "experts."

Thank you for your attention!