

Engineering Sciences -2018

D24 It's a Fair System, Isn't It? Facts, Alternative Facts, and Other Litigation Influencers

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After attending this presentation, attendees will better appreciate what can go wrong with scientific analyses and testimony, what enabling mechanisms are at work, what motivates practitioners to indulge in unethical and/or illegal behavior, and what strategies may be employed to avoid or minimize such problems.

This presentation will impact the forensic science and legal communities by enabling them to identify unethical behaviors, appreciate the diversity of such behaviors, and provide them with ideas for strategies that may be employed to avoid or minimize such problems.

Expert forensic testimony is so widespread that it now often forms the backbone of criminal cases and nearly always plays a critical role in civil litigation. Some disciplines rely on conclusions derived mostly from hard data (test results or recorded observations, for example), while other disciplines rely on subjective opinion that is based upon experience, hypotheses, individual theories, and judgment. Virtually every discipline involves at least some subjective judgment, and that leaves plenty of scope for a well-intentioned process to go away.

The continuing viability of industries, involvement of huge sums of money, and entire lives are often at stake (death penalty or life without parole). The outcome of trials changes the lives not only of the parties involved, but potentially of huge numbers of people for many years to come. With so much at stake, it is imperative that society ensures the integrity of the system; it should be beyond reproach. Unfortunately, we are falling short of that ideal. The court's role as gatekeeper and the application of *Daubert* and *Frye* standards have helped to keep unreliable expert testimony out of the courtroom, but even these safeguards fall short of desired ideals. *Frye*, for example, requires that testing protocols and underlying scientific principles be accepted by the relevant scientific community — but what objective standards are used to identify the relevant scientific community? The application of a *Frye*-type standard in 16th-century Italy resulted in the incarceration of Galileo because he said the earth was round and rotated around the sun, while the "relevant scientific community" dismissed his work as heresy. How can we be sure that similar errors are not being made in courtrooms today?

Incompetence can largely be overcome by remedial education, training, and stringent staff selection policies. Errors will never be eliminated completely but can be greatly reduced by the adoption of procedures, including independent peer review; however, there are far more sinister forces at work within the system (greed, power grabs, influence peddling, ego aggrandizement, etc.) that motivate humans to lie, commit fraud, intimidate or deceive others, and introduce bias. These can be difficult to detect and extremely difficult to eliminate.

Historically, the legal system appears to have dismissed the aforementioned acts as so rare as to be insignificant; however, a review of cases, and especially criminal cases, reveals that the problem is not as isolated as the layperson may assume. Perhaps there is more motivation to eliminate such acts in civil litigation, where huge sums of money are often involved, and less motivation in the criminal arena, where the high volume of cases and society's perception of criminal defendants as thieves, junkies, rapists, murderers, and general "street scum" results in less scrutiny. The post-conviction process does little to discourage these behaviors. The review system is geared toward errors of process, rather than errors of fact or opinion, and the attitude of the courts is often one of, "tough, the defendant should have hired his own expert and challenged this testimony first time around; he gets only one bite of the cherry." These undesirable expert behaviors have essentially been encouraged by the attitude of the legal community, by experts themselves, by the adoption of poor procedures, and by the creation of innocuous names for unethical or illegal activities. For example, generating fictitious test data (fraud) is often described as "dry labbing," and false and misleading testimony is often described as "he misspoke," even when it leans solely in favor of the hiring party.

Case studies will be used to illustrate the points discussed and perhaps identify the motivations of the guilty parties. It will be demonstrated that while some instances of wrongdoing are the acts of individuals, others indicate conspiracy. It is concluded that the systemic failures that enable these practices to continue will not be changed without significant and concerted effort on the part of the legal system and lawmakers.

Incompetence, Bias, Dishonesty