F6 Science, Technology, and Jurors: An Update

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Learning Overview: After attending this presentation, attendees will be aware of the potential impact on jurors of the scientific and technological developments of the past decade, particularly the "Tech Effect" and the "CSI Effect" myths.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by making attendees aware of how the scientific and technological developments of the past decade may impact the attitudes of jurors toward forensic science evidence in criminal cases.

Ten years ago, the validity of the so-called "CSI Effect," which alleged that jurors were wrongfully acquitting criminal defendants when the prosecution did not present the type of forensic science evidence seen on television programs like *CSI* was examined. While data did demonstrate that jurors expected, and in some cases demanded, scientific evidence, there was no correlation with the television programs those jurors watched.[1-4] It is suggested that those juror expectations and demands were more likely partially the result of what was called a "Tech Effect"—the impact of the technological and informational revolution in our society—which informed jurors about the ready availability of DNA and other forensic science techniques.

It is time to take another look. This presentation discusses the impact of some of the technical and social changes in the past decade on today's jurors and discusses whether the "Tech Effect" persists considering those developments.

Some of those developments include increased public awareness of the large numbers of exonerations. The National Registry of Exonerations documented 2,665 exonerations of wrongfully convicted persons since 1989. Almost 1,300 of those exonerations have come since 2010. It also includes new developments in DNA techniques, including such things as autosomal Short Tandem Repeats (STRs), Y-chromosomal Short Tandem Repeat s (Y-STRs), Single Nucleotide Polymorphisms (SNPs), body fluid identification, rapid DNA testing, Next Generation Sequencing (NGS), DNA mixture interpretation, Probabilistic Genotyping Software (PGS), DNA phenotyping, and new genomic platforms regarding "touch" and other refinements. Another development is the use of genetic genealogy to solve crimes and the widespread publicity involving its solving of "cold" cases.

Meanwhile, there also is a growing politically based "anti-science" movement. There has been a demonstrated policy rejection of previous forensic science efforts. Recently, there has been a very public debate about the seemingly "anti-science" approach to the COVID-19 pandemic in addition to media coverage of forensic science laboratory misconduct. There have been several highly publicized cases of forensic laboratory fraud and mistakes and, relatedly, a distrust of police testimony and conduct following video documentation of police misuse of force. The Black Lives Movement is just the latest result of such technologically documented police misconduct.[5-12]

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