



## **I9 The Unfolding Development of Forensic Behavioral Science**

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After attending this presentation, attendees will apply a deeper understanding of the underpinnings of their fields to their work and, as a result, will enjoy more satisfying conversations with colleagues of other disciplines.

This presentation will impact the forensic science community by increasing appreciation for gathering and applying sound information — both new and old.

The founding of the American Academy of Forensic Sciences (AAFS) marked the commitment of serious professionals in each of the forensic sciences to contribute to the unending progress in the quality of their work. Their intention applied to both the reliability and validity of the methods and procedures to use in each field. In doing so, our founders expected to promote justice and thereby serve not only parties in litigation, but all humanity as well.

Regarding the behavioral forensic sciences, it is useful to understand their history as developing over a four-stage course, beginning with a time of genuine, although poorly acknowledged, ignorance. In time, it became difficult to demonstrate that behavioral experts' opinions offered anything better than random chance; the equivalent of a coin toss.

Experiencing the painful impact of even moderately good scientific methodology on their theory-based testimony sufficed for most experts to usher in the second developmental stage. By roughly the early 1970s, working groups from several universities began the publication of statistical scales, based on subjects' behavioral histories, medical and social histories, and varied additional data yielding estimates of probabilities of future behaviors.

Meanwhile, the age of scans, the third developmental stage, was getting underway. In the United Kingdom during the mid-1970s, engineers working for Electronic Music Incorporated (EMI) developed crude planar images of living human subjects' brains. To do this, they took advantage of technical refinements in the generation and detection of X-rays. Soon enough, these "EMI scans" became valued for their clinical utility. In the forensic arena, their use has demonstrated both the value and the danger of the saying that a picture is worth a thousand words. Having a basic understanding of the workings of the more recent scanning technologies, especially Magnetic Resonance Imaging (MRI), only strengthens this recognition.

The final phase, for the present at least, is that of genetics. Here, the behavioral forensic specialist needs to comprehend at least the elementary jargon of the DNA expert and related forensic specialists. Any efforts to do so are soon handsomely repaid. As progress in this fourth stage continues, we may look forward to important conversations among forensic experts as they recognize the many diverse likenesses in their professional DNA.

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### **Development, Interdisciplinary, Progress**