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| Forensic Technology



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Contents

Foreword	13
Introduction	16

Chapter 1: Is Forensic Technology Unreliable?

Chapter Preface	21
-----------------	----

Yes: Many Common Forensic Technologies Have Not Been Scientifically Validated

The Quality of Forensic Investigation Varies Widely Due to a Lack of Standards	24
--	----

National Research Council

With National Research Council approval and support, the National Academy of Sciences conducted an investigation of forensic technology and in 2009 issued a report stating that much of it is not based on sound science. New procedures, more education, accreditation of laboratories and practitioners, and further research were recommended.

More Research in Forensic Science Is Needed to Prevent Wrongful Convictions	35
---	----

Peter Neufeld

Many innocent people have been convicted on the basis of faulty forensic evidence, which judges and juries have been misled to believe is based on science. The support of Congress in implementing the recommendations of the National Academy of Sciences' 2009 report is needed.

Both Fraud and Error in Forensic Investigation Are Common	44
---	----

Radley Balko and Roger Koppl

Charlatans have often taken advantage of judges' and juries' ignorance about forensic technologies, but there have been even more instances of mistakes on the part of conscientious investigators. The system must be reformed and quality control measures must be instituted.

There Is No Scientific Basis for Trusting
Fingerprint Evidence 50

Simon A. Cole

In recent years, there has been growing controversy over the validity and legal admissibility of fingerprint evidence. Judges believe that fingerprinting is reliable, but an increasing number of experts now agree that there is no scientific evidence for such a conclusion.

The Defense Now Has the Right to
Question Forensic Analysts During Trials 61

Lyle Denniston

The U.S. Supreme Court has recently ruled that if a crime lab report is introduced as evidence in a trial, the defense has the right to cross-examine the person who prepared it. The Court's majority opinion cited many published reports on the unreliability of forensic evidence.

**No: Forensic Evidence Is Not as Unreliable
as Recent Reports Suggest**

Efforts to Solve the Problems of Forensic
Science Are Already Underway 64

Tabatha Wethal

The state of forensics is not as bad as the 2009 National Academy of Sciences report suggests, for most of the problems cited were already known to those working in the field, and many of the steps it recommends are already being taken. Poor training of analysts is caused by lack of funding.

The Official Report on the State of
Forensics Is Interfering with Prosecutions 71

Barry Matson

The 2009 National Academy of Sciences report overlooked all that prosecutors and forensic professionals do to protect the innocent. Its attack on established investigative techniques has already had a negative impact on prosecutors who are seeking the truth.

Forensic Technology Has Been Wrongly
Criticized as Unscientific 79

Crime Lab Report

Forensic technologies have been developed over a long period of time by qualified researchers, and there is no evidence that they are unreliable. Their critics are uninformed about the ways in which they have been validated. All scientific evidence requires human interpretation.

Chapter 2: Does the “CSI Effect” Influence Verdicts in Jury Trials?

Chapter Preface 89

Yes: Juries and Lawyers Are Affected by Fictional Portrayals of Crime Investigation

The TV Drama *CSI* Is Affecting How Jurors
React in Real-Life Trials 91

Richard Willing

So many people watch the television series *CSI: Crime Scene Investigation* that it is having an effect on how lawyers prepare their cases and choose juries. Many believe juror familiarity with *CSI* helps the defense, but on the other hand it may also help prosecutors.

The *CSI* Effect Is Leading to
Unwarranted Acquittals 98

Jeffrey Heinrick

Television-educated jurors are less likely to convict someone who is guilty because the techniques they have observed in fictional cases have not been used. It may eventually become standard procedure in pre-jury screening to make sure that jurors understand forensic technology.

Judges Should Take Steps to Counter
CSI's Influence on Jurors 106

Joshua K. Marquis

CSI fosters myths about how crime scene investigators work, and it also leads jurors to expect forensic evidence where in many cases it does not exist. As a result, other evidence that once would have led to a conviction is discounted. Judges should do more to combat this trend.

The Criminal Litigation Process Is Being
Altered by Fear of the *CSI* Effect 113

Tamara F. Lawson

A potential juror's exposure to the distorted view of criminal prosecution created by *CSI* sways his or her analysis of real evidence. Lawyers and judges are changing their tactics to deal with this, and it has immeasurably changed the way criminal litigation is conducted today. No matter what it is called, there is a real phenomenon that must be controlled to ensure fair trials.

No: There Is No Evidence That TV Fiction Has Changed Jury Behavior

Expectation of Forensic Evidence Has
No Bearing on Jurors' Decisions 122

Donald E. Shelton

A study of 1,000 prospective jurors found that although *CSI* viewers had higher expectations for scientific evidence than non-*CSI* viewers, these expectations had little, if any, bearing on the respondents' willingness to convict.

The *CSI* Effect Exists Only in the Minds
of Those Who Propose It 132

Kimberlianne Podlas

There is no empirical evidence that a *CSI* Effect exists; claims that it does are based merely on anecdotes about cases that law enforcement lost when it believed it should have won. The alleged effect does not warrant criminal justice reforms or increased latitude for prosecutors.

Wide Media Coverage of the *CSI* Effect
May Itself Influence Jury Reactions 141

Simon A. Cole and Rachel Dioso-Villa

It is often claimed by the media that the *CSI* Effect is an established phenomenon and that it is disadvantageous to prosecutors, although legal scholars have pointed out that it might instead work to their advantage. These claims may be either a self-fulfilling prophecy or a self-denying one.

Chapter 3: Can New Forensic Technologies Determine If Someone Is Lying?

Chapter Preface 151

Yes: New Technologies Can Detect Concealment of Information or Dishonesty

- Recordings of Brain Activity Show Whether a Fact Is Stored in Someone's Memory 154

Sam Simon

A new forensic technique known as Brain Fingerprinting can determine from brain activity whether a person's memory contains certain facts about a crime. It does not show guilt or innocence, but it can reveal that claims to have no knowledge of those facts are false.

- Brain Scanning Accurately Detects Lies During Experiments 164

Malcolm Ritter

Research is being done on using fMRI (functional magnetic resonance imaging), a common medical process, as a tool for lie detection. Developers have obtained 90 percent accuracy and hope that after further study, the technique will become admissible in court.

- Hand-Held Lie Detectors May Be Useful for Screening Purposes 172

Bill Dedman

A new hand-held lie detector is being used by the military in war zones, although not on U.S. personnel. It is much less complex and thus even less accurate than a polygraph, but its proponents say it serves to show which people out of a large group should be questioned further.

No: Lie Detection Technologies Are Not Accurate Enough to Use in Criminal Investigations

- The Assumption That Physical Reactions Can Detect Lying Is Not Valid 182

Melissa Mitchell

Brain-based technologies have been promoted as effective in detection of lies, but some scholars believe they are based on false assumptions and will not work any better than polygraphs, which have been increasingly dismissed as unreliable.

Brain Scanning Has Not Been Sufficiently Tested for Public Use	187
---	-----

Aalok Mehta

Studies of fMRI lie detection have been successful in controlled lab settings, but it is much too soon to say it will work in real-life situations. It is reckless and unethical to put it into use, when little is known about its limitations, and jurors tend to give too much weight to neuroscience.

Voice Stress Analysis Cannot Adequately Distinguish Lies from Truth	191
--	-----

Kelly R. Damphousse

Although voice stress analysis, which detects a person's stress level by recording voice patterns, is used by many law enforcement agencies, studies have found that it is no better at detecting lies than flipping a coin. However, knowing that it is being used does deter people from lying.

Chapter 4: What Improvements in Forensic Technology Are Being Tried?

Chapter Preface	199
-----------------	-----

Improved Techniques for Analyzing Stains Provide Information About Crimes	202
--	-----

Matt Martin

New forensic technologies, such as bloodstain pattern analysis and skin cell examination, reveal much more about a crime scene than older methods, and far better tools exist for analyzing substances. But not all the techniques shown on television crime shows are available.

Micro-Stamping of Firearms Is Not an Effective Means of Identifying Criminals	208
--	-----

Wendy Wang

California has a law requiring firing pins of new semi-automatic pistols to be engraved with a micro-stamped code, but studies have found that this technology does not work well with all guns and ammunition, and merely linking a cartridge to a gun does not show who fired it.

**DNA Testing Is Now Being Used
with Non-Violent Crimes** **211**

Dan Morse

DNA testing, once used only in cases of murder or rape, is now sometimes employed to solve lesser crimes. Prosecutors say this will lead to more guilty pleas, but defense lawyers fear that it will increase the odds of false matches; moreover, it is creating a backlog of work in DNA labs.

**DNA Samples Can Provide Clues to a
Crime Suspect's Physical Appearance** **214**

Evan Pellegrino

Studies show that it is possible to predict the hair, eye, and skin color of a suspect from DNA taken at a crime scene. This technique is not yet sophisticated enough to be used as evidence, but it may be a useful tool for crime investigation.

**CT Scanning Has Many Advantages
over Conventional Autopsies** **217**

Douglas Page

Multidetector computed tomography (MDCT) scanning is fast, non-invasive, and can be used when conventional autopsies are not feasible. Furthermore, it can provide information about the cause of death that a conventional autopsy cannot.

**Attempts Are Underway to Make Bite
Mark Analysis More Scientific** **224**

Todd Richmond

Bite mark analysis has long been criticized as unscientific and inaccurate, but now an attempt is being made to create a database of bite marks that will help to determine the rarity of specific bite mark characteristics. However, critics say that skin changes distort bite marks too much.

**Soil Analysis Is Becoming a Powerful
Technique for Crime Investigation** **227**

Louise Murray

New technologies for soil analysis can pinpoint the location from which dirt found at a crime scene or on a suspect has come. They are also extremely valuable for locating buried bodies, as it is possible to detect where the soil has been disturbed.

Research on Decomposing Bodies Provides Important Data for Forensics	232
---	-----

Mike Osborne

The Anthropological Research Facility at the University of Tennessee, generally referred to as the Body Farm, provides extremely important information about how bodies decompose. It is used not only to train criminologists but to analyze the bodies of specific crime victims.

Organizations to Contact	235
Bibliography	241
Index	247

Foreword

By definition, controversies are “discussions of questions in which opposing opinions clash” (Webster’s Twentieth Century Dictionary Unabridged). Few would deny that controversies are a pervasive part of the human condition and exist on virtually every level of human enterprise. Controversies transpire between individuals and among groups, within nations and between nations. Controversies supply the grist necessary for progress by providing challenges and challengers to the status quo. They also create atmospheres where strife and warfare can flourish. A world without controversies would be a peaceful world; but it also would be, by and large, static and prosaic.

The Series’ Purpose

The purpose of the Current Controversies series is to explore many of the social, political, and economic controversies dominating the national and international scenes today. Titles selected for inclusion in the series are highly focused and specific. For example, from the larger category of criminal justice, Current Controversies deals with specific topics such as police brutality, gun control, white collar crime, and others. The debates in Current Controversies also are presented in a useful, timeless fashion. Articles and book excerpts included in each title are selected if they contribute valuable, long-range ideas to the overall debate. And wherever possible, current information is enhanced with historical documents and other relevant materials. Thus, while individual titles are current in focus, every effort is made to ensure that they will not become quickly outdated. Books in the Current Controversies series will remain important resources for librarians, teachers, and students for many years.

In addition to keeping the titles focused and specific, great care is taken in the editorial format of each book in the series. Book introductions and chapter prefaces are offered to provide background material for readers. Chapters are organized around several key questions that are answered with diverse opinions representing all points on the political spectrum. Materials in each chapter include opinions in which authors clearly disagree as well as alternative opinions in which authors may agree on a broader issue but disagree on the possible solutions. In this way, the content of each volume in *Current Controversies* mirrors the mosaic of opinions encountered in society. Readers will quickly realize that there are many viable answers to these complex issues. By questioning each author's conclusions, students and casual readers can begin to develop the critical thinking skills so important to evaluating opinionated material.

Current Controversies is also ideal for controlled research. Each anthology in the series is composed of primary sources taken from a wide gamut of informational categories including periodicals, newspapers, books, U.S. and foreign government documents, and the publications of private and public organizations. Readers will find factual support for reports, debates, and research papers covering all areas of important issues. In addition, an annotated table of contents, an index, a book and periodical bibliography, and a list of organizations to contact are included in each book to expedite further research.

Perhaps more than ever before in history, people are confronted with diverse and contradictory information. During the Persian Gulf War, for example, the public was not only treated to minute-to-minute coverage of the war, it was also inundated with critiques of the coverage and countless analyses of the factors motivating U.S. involvement. Being able to sort through the plethora of opinions accompanying today's major issues, and to draw one's own conclusions, can be a

complicated and frustrating struggle. It is the editors' hope that Current Controversies will help readers with this struggle.

Introduction

“The main cause of the underuse of forensic technology is that it is very expensive.”

In recent years, public interest in forensic technology has grown, largely because of such television dramas as *CSI: Crime Scene Investigation* and others like it. However, these shows offer a somewhat distorted picture of forensics. They imply that when an investigator finds evidence, this will immediately lead to the arrest and conviction of whoever committed the crime. That is not how it works in real life. The people who investigate crime scenes are usually not the same people who do laboratory work; evidence must be sent away to a lab and it is often many weeks, even months, before a report on it is received. Moreover, some of the technologies shown on television are either so new that few police departments have access to them or they do not even exist yet.

Also, as is explained in Chapter One of this book, most existing forensic technologies have not been scientifically validated and are not nearly as foolproof as either the public or the legal profession supposes. They are not the same kind of “technology” as computer technology, which turns out products meeting uniform specifications—they involve human interpretation. This would be true even if their reliability had been measured by science.

Forensic technology is nevertheless extremely valuable in criminal investigations, whether or not it produces evidence admissible in court. But unfortunately, it is not as widely utilized as is generally assumed. In the case of DNA testing—by far the most reliable of the various technologies available—underuse prevents both the conviction of criminals who might otherwise be caught and the exoneration of innocent persons