

Injustice by Forensics

An interview with Prof. Brandon Garrett and Dr. Peter Stout

- Overview
 - Forensic labs exist to objectively analyze evidence, guide experts, and support criminal convictions.
 - Any forensic science failure to review evidence accurately and in a timely manner can result in systemic injustice.
 - Quality control, expert reliability, timeliness, and crime lab funding play key roles in reducing the effect of confirmation bias and maintaining the right to a speedy and fair trial.
- Getting it Wrong
 - Josiah Sutton v. The State of Texas¹
 - In 1998, a rape and abduction victim identified two men as possible suspects. Both suspects agreed to DNA testing. While the second man was excluded, laboratory tests determined that Sutton's DNA matched samples found at the crime scene. Sutton was then convicted and sentenced to 25 years in prison, despite several discrepancies in the evidence.
 - Due to an independent investigation into the Houston crime laboratory, Sutton's case was reexamined. After retesting of DNA, exculpatory evidence made Sutton's innocence clear. After serving 4 and a half years, Sutton was exonerated.
 - George Rodriguez v. The City of Houston (5th circuit)²
 - A 1987 case, the victim was taken to the attacker's house, raped by two men, and later left on the side of the road. Despite being at work at the time of the attack and confirmation of his alibi, Rodriguez became a suspect due to his association with the men who lived in the house. The only biological evidence tying Rodriguez to the crime was a 'similar' strand of hair, which was later found to be false evidence from the Houston Police Dept. Crime Lab³. It was noted that Yanez and Rodriguez had many similar characteristics, which presumably led to a mistaken witness ID.
 - Rodriguez was sentenced to 60 years, losing all appeals. Reexamination of DNA evidence found that Rodriguez could not have had any connection, and Yanez could not have been excluded. After serving 17 years, Rodriguez was exonerated of all charges.

- Timeliness: Having the Right Answer Too Late
 - Lydell Grant v. The State of Texas⁴
 - Victim Aaron Scheerhoorn, was stabbed repeatedly outside of Club Blur, later dying at a nearby hospital. There were several witnesses to the crime. The following day, Grant was seen near the bar, and identified by a witness from the previous night, who then called Crime Stoppers. Grant was arrested and charged with first-degree murder during an unrelated traffic stop. All contingent on several eyewitness identifications and testimonies.
 - Physical evidence hinged on scrapings under Scheerhoorn's fingernails and eventually deemed "inconclusive".
 - Grant was convicted of first degree murder and sentenced to life⁵. In 2019, the use of probabilistic genotyping through the FBI's CODIS, proved Grant to be excluded, and another profile, included.
 - Texas Supreme Court released Grant, issuing an apology.
- How Evidence is Collected
 - Proper labeling, giving it to someone with training to analyze, reliable methods, conveying results in comprehensible reports, presenting that evidence in court
 - Methods depend on experts who have expertise based on their own training such as pattern recognition
- Proficiency Testing
 - The majority of crime labs do conduct proficiency tests for analysts.
 - Often taken in groups, the tests are pass/fail and designed to be easy.
 - Educated guesses are made based on training and experience. However, mistakes are still made, due to little check on the system.
- Standard in the Field, High Error Rates and Inconclusivity
 - D.C. Department of Forensic Sciences, Accreditation Suspended⁶
 - In the case of U.S.A. v. Rondell Mcleod⁷
 - D.C. crime lab found the same weapon was used for two separate homicides.
 - U.S. Attorney's Office hired independent experts and found that the cartridges from the two crimes did not match.
 - Ballistics records highlighted a high error rate within the lab, more than 1/3 of cases found to be 'inconclusive'.
 - Frequent unofficial documentation of results
- Power of Forensic Evidence on a Jury
 - Keith Harward v. Commonwealth of Virginia⁸

- Harward accused of capital murder, rape, robbery and burglary. Well-known forensic dentist Lowell Levine examined bite marks made on the victim's body, determining them to belong to Harward. DA highlighted discrepancies between Harward's teeth v. the evidence presented. Jury dismissed these claims due to the fact that he was not an 'expert'.
- Crime lab analyst gave false testimony, claiming that Harward could not be excluded.
- Harward was originally sentenced to death, and later life.
- After spending 33 years in prison, Harward was released and his convictions vacated.⁹
- Standards of Reliability
 - Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993)
 - Expert testimony must be relevant and foundationally reliable. Nonbinding factors for trial court to consider:
 - Whether the methodology has been or can be tested,
 - Whether the methodology has been peer reviewed and published,
 - The known or potential error rate,
 - Existence and maintenance of standards controlling its operation, and
 - Whether the methodology is generally accepted in the field.
 - Federal Rules of Evidence 702. Testimony by Expert Witnesses
 - Amended in 2000 to codify Daubert and progeny cases.
 - If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to 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 or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.
 - Daubert implemented
 - Empirical evidence supports the view that Daubert is more vigorously applied in civil litigation, particularly in cases involving large sums of money. Civil defendants are significantly more successful in Daubert challenges to exclude plaintiff's expert testimony than criminal defendants whose life or liberty is on the

line. Criminal defendants seeking to exclude prosecutions' evidence via Daubert challenges generally lose.¹⁰

- Crime Lab Funding
 - There are 411 publicly funded crime labs nationally. Almost all operate within law enforcement offices.
 - Crime labs are low priority when it comes to general public safety expenses.
 - The DOJ allocates \$200 million of the federal budget for these 411 crime labs.
 - Annie Dookhan¹¹ and Sonja Farak were both forensic analysts in MA crime labs
 - Found to be using drug evidence for their own leisure, during on and off work hours, rather than actually testing the drugs
 - 72,000+ drug-related cases have been thrown out and continue to be, costing the laboratory \$30+ million in compensation
- George Rodriguez¹²
 - Qualified for compensation
 - Sued Houston for civil liberties infringement
 - Won \$8 million from just one lab error
- Quality Control
 - Requirements for lab accreditation and personnel licensing vary
 - In the state of Texas, crime labs do have to be accredited and licensed. Yet, crime scenes, latent prints, and multimedia evidence do not have to be licensed or accredited.
 - D.C. crime lab is set to have independent auditor review effectiveness as well as how the lab has handled previous complaints of misconduct.¹³
 - Random audits from independent actors should be conducted nationally.
- Blind Testing
 - Controlled samples are sent to the laboratory and put into the workflow
 - Analysts are unaware of the manufactured materials
- Lack of Personnel
 - ½ of labs nationally have less than 23 employees
 - More than ¼ of labs nationally have less than 9 employees
 - There are simply not enough employees to conduct these self-checks on the system.
- Timeliness
 - Having the right answer too late is ineffective.
 - Crime labs must adhere to the timelines of other departments and processes (i.e., the right to a speedy trial).

- Having objective evidence helps to reduce conformational bias of investigators, judges, etc.
 - Ex: Lydell Grant
- Overturning Cases
 - 95% of felony cases result in plea bargains, there is little to no review of these cases, no appeal
 - The few that go to a trial, may be appealed, but you cannot bring up evidence that was not a part of the original record.
 - Most people cannot afford the costliness of a retrial, a lawyer, or an attempt at discovery.

Footnotes

1. Sutton v. State, No. 14-99-00951-CR, 2001 WL 40349 (Tex. App. Jan. 18, 2001) (denying appeal in which appellant asserted ineffective assistance of trial counsel for failing to retest DNA). ↩
2. Rodriguez v. State, 766 S.W.2d 358 (Tex. Ct. App. 1989). ↩
3. Liptak, Adam, and Ralph Blumenthal. "New Doubt Cast on Testing in Houston Police Crime Lab." The New York Times, The New York Times, 5 Aug. 2004, www.nytimes.com/2004/08/05/us/new-doubt-caston-testing-in-houston-police-crime-lab.html. ↩
4. Dellinger, Hannah. "Appeals Court RULES Lydell Grant Innocent in MONTROSE SLAYING." Houston Chronicle, Houston Chronicle, 20 May 2021, www.houstonchronicle.com/news/houston-texas/crime/article/lydell-grant-ruled-innocent-montrose-slaying-16188308.php. ↩
5. Possley, Maurice. "Lydell Grant - National Registry OF EXONERATIONS," 16 June 2021, www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=5980. ↩
6. Grablick, Colleen. "D.C. Forensics Lab 'Deliberately CONCEALED Information,' Accreditation Board Says." NPR, NPR, 7 Apr. 2021, www.npr.org/local/305/2021/04/07/985018329/d-c-forensics-labdeliberately-concealed-information-accreditation-board-says. ↩
7. United States of America v. Rondell Harward, 2017, CFI 9869 ↩
8. Harward v. Commonwealth, 5 Va. App. 468, 364 S.E.2d 511 (Va. Ct. App. 1988) ↩
9. Possley, Maurice. "Keith Harward - National Registry OF EXONERATIONS," 15 Apr. 2016, www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=4869. ↩

10. Craig M. Cooley, & Gabriel S. Oberfield, "Increasing Forensic Evidence's Reliability and Minimizing Wrongful Convictions: Applying Daubert Isn't the Only Problem," 43 Tulsa L. Rev. 285, 291 (2013) (citing D. Michael Risinger, "Navigating Expert Reliability: Are Criminal Standards of Certainty Being Left on the Dock?" 64 Alb. L. Rev. 99, 108-11 (2000)).
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11. Estes, Andrea. "Almost a Decade after Annie DOOKHAN and the State Drug LAB Scandal, the Fallout Is Growing - The Boston Globe." BostonGlobe.com, The Boston Globe, 2 Jan. 2021,
www.bostonglobe.com/2021/01/01/metro/nearly-decade-after-annie-dookhan-state-drug-lab-scandal-fallout-is-growing/. ↵
12. Falkenberg, Lisa. "\$3.1 Million Settlement Reached for Man Falsely Imprisoned." Chron, Houston Chronicle, 3 Nov. 2012,
www.chron.com/news/houston-texas/houston/article/3-1-million-settlement-reached-for-man-falsely-4003901.php. ↵
13. "Auditor to REVIEW DC Crime Lab's Compliance with 2011 Law Creating Independent Forensic Agency." WTOP, 11 Aug. 2021,
wtop.com/dc/2021/08/auditor-to-review-dc-crime-labs-compliance-with-2011-law-creating-independent-forensic-agency/. ↵