The Problem of Shifted Science and the Law: Solved!

“Slow and painful has been man’s progress from magic to law.”

This proverb, inscribed at the University of Pennsylvania Law School on the statue of Hseih-Chai, a mythological Chinese beast who was endowed with the faculty of discerning the guilty, is a fitting metaphor for both the progress of the law and the history of this case. The law is the means by which fragile, frail, imperfect persons and institutions seek greater perfection and justice through the search for the truth. But the search for the truth is not always easy, and the path to the truth is not always clear.

Sometime we find that truth eludes us. Sometimes, with the benefit of insight gained over time, we learn that what was once regarded as truth is myth, and what was once accepted as science is superstition.

The above language is from the final ruling in the case of Pennsylvania v. Han Tak Lee. Mr. Lee was convicted of arson and homicide based on evidence proffered in 1990 that, 23 years later,
was finally admitted by all parties to be invalid.¹ The shift in fire science has been remarkable over the last few decades, and especially since 2000.

Science is, and always has been, a self-correcting enterprise. Eventually, with continued research, peer review, and publication, scientific knowledge advances by correcting what is wrong and opening new lines of inquiry.

Justice, on the other hand has an interest in efficiency and finality. “Once a defendant is been afforded a fair trial and convicted of the offense for which he was charged, the presumption of innocence disappears.”²

What are the courts to do, then, when the science on which a conviction was based is found to be faulty? The case of David Lee Gavitt, presented in the September issue of this newsletter prompted the publication of an article entitled “Shifted Science and Post-Conviction Relief” by Caitlin Plummer and Imran Sayed.³ Like Mr. Lee, Mr. Gavitt was convicted based on junk science and an improperly conducted chemical analysis. He served 27 years in the penitentiary before the courts recognized that the science used to send him there was invalid.

In recent years, five states have adopted new procedures that allow for a writ of habeas corpus to be prosecuted (appeals to be filed) based on shifted science. The two most populous states, Texas and California, which could not be farther apart politically, have adopted “changed science” statutes. Additionally, changed science statutes have been adopted by Wyoming and Connecticut, and the Michigan Supreme Court has changed both the rules for filing appeals and the Rules of Professional Conduct to allow for appeals when the science has changed, even in cases where other rules have prevented the filing of additional appeals based on the timeliness or the perceived need for finality.

The Texas rules statute had to be amended when the Court of Criminal Appeals found that in a homicide case, simply having the medical examiner change her mind about the manner of death (she originally called it homicide and later called it undetermined) was not sufficient to justify
post-conviction relief. The legislature revised the statute to include allowing appeals in such cases.

In 2017, Prof. Simon Cole of UC Irvine published a discussion of the changed science statutes in Texas and California, available at
https://www.americanbar.org/content/dam/aba/publications/Jurimetrics/Summer_2017/cole.pdf

The Texas statute may be found here:

The California statute can be found here:
https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?
sectionNum=1473.&lawCode=PEN

and the Michigan revised rules can be found here:
https://courts.michigan.gov/Courts/MichiganSupremeCourt/rules/court-rules-admin-

The statute in Texas was prompted by a wrongful conviction for homicide based on a medical examiner’s testimony. The California statute was prompted by the admission of bite mark evidence.

It is my belief that no matter where they live, people sent to prison based on junk science should have the opportunity to file an appeal when it can be shown that they are actually innocent and the science used to convict them was false. Anyone in a position to influence his or her state legislature or state Supreme Court is urged to take action to advocate for the adoption of “changed science” statutes or court rules.

References


Case Study of the Month

This month’s case study does not appear in chapter 9 of my book because it only settled last month.

Commonwealth of Pennsylvania versus Michele Black
and
Michele Black versus Montgomery County, et al.

Hanlon’s Razor (a special case of Occam’s Razor) holds that that one should never attribute to malice that which can be just as easily attributed to incompetence, but this case began in ignorance and descended into malice, fabrication of evidence, and outright perjury. This article is a brief synopsis of the case but readers can find all the details in the file located at https://app.box.com/s/0f95ewpstmtx9o7ffiejax

Michele Black was accused of setting her mother’s former residence in Montgomery County Pennsylvania on fire on November 21, 2012. Mrs. Black was in town to help her mother move out of the house because the house had gotten too much for her mother to handle, so she sold the house. The closing was two days BEFORE the fire. Michelle was taking her mom to California. Shortly before the move was completed, an electrical fire broke out in a third-floor bedroom. Officers from the Lower Merion Township Fire Department and the Montgomery County District Attorney’s Office (some of the same players that falsely accused Paul Camiolo of arson), as well as a state trooper, all concluded, erroneously, that the fire was intentionally set, because they could not figure out what had actually happened.

What happened was an electrical outlet that had a breakdown in insulation caused the fire. This outlet was erroneously “ruled out,” although it was clearly at the origin of the
fire. Coincidentally, there were three electricians present. They were re-wiring the house so the new owners could obtain insurance. State Farm had insisted that the 100-year-old knob-and-tube wiring be replaced. The electricians were flipping breakers on and off, but reportedly said that the outlet in question was de-energized.

I was retained shortly before the trial, and provided with reports and photographs of the house and the room of origin. I immediately recognized that the fire began in the outlet and was caused by arc tracking, also known as arcing across a carbonized path. The 220-volt receptacle had nothing plugged into it at the time of the fire, but it apparently had failed some years earlier and was abandoned in place and the breaker left off. On the day of the fire, as breakers were being cycled on and off by the electricians, the carbonized path begin to conduct. The receptacle is shown below.
Recognizing that a potential miscarriage of justice was about to occur, I reached out to the local fire marshal and requested a meeting but he failed to respond. Mrs. Black's attorney reached out to the assistant district attorney and offered to allow him to interview me about my proposed testimony ahead of time, so he could see the error of his ways. He also declined to respond.

Prior to the trial, I attended the annual meeting of the IAAI in Las Vegas, where I took the opportunity to show the photographs of the arc tracking to several forensic electrical engineers. All of them agreed that it was an obvious case of arc tracking. Unfortunately for the local investigators, they had not investigated enough fires to have previously encountered arc tracking as a fire cause or if they had, they didn't recognize it. The carbonized path on the back of the receptacle is shown below.
Figure 2. Carbonized path on the back of the receptacle.

Mrs. Black was charged with six felonies, including both arson of an occupied structure and arson of an unoccupied structure. Prior to trial, she was offered a deal to plead to a single summary offense, involving no jail time and no fine. She declined.

The judge had problems with this case, suggesting to the ADA that he run it by his superiors before bringing it to trial, and on the morning of the trial, he asked the ADA what he thought the motive was. The ADA stated that Mrs. Black was upset because her mother did not get a sufficient price for the sale of the home, but in closing arguments, he told the jury that Mrs. Black had simply “snapped” under the pressure of the sale.
This was the most unusual arson trial that I had ever attended in that the Commonwealth presented exactly zero photographs of the scene to prove their case. Some photographs were introduced by defense counsel on cross-examination.

As I sat in the audience, I was shocked to see that on redirect, two photographs were introduced by the ADA showing that the wire supplying the receptacle had been cut and taped. These photographs had not been provided to the defendant prior to the trial, and it was clear that they were taken several days after the initial investigation.

I was able to explain to the jury the concept of arc tracking, and also told them that the photographs of the cut and taped wire did not accurately represent the scene on the day of the fire because the wire was behind the wall, which had been closed until the fire department opened it.

It took the jury all of 40 minutes to elect the foreman and return not guilty verdicts on all counts. They recognized that the heart of the Commonwealth’s case was based on photographs that were either misunderstood or constituted fabricated evidence.

I began using this case as a teaching tool. I prepared a PowerPoint called “Anatomy of a Train Wreck,” which I have presented at least a dozen times. The major purpose is to allow investigators to gain the experience of actually seeing what arc tracking looks like, because it is not a common fire cause. But the PowerPoint also points out the sad fact that even law enforcement officers sometimes break the law.

Ms. Black filed a federal civil rights case against the Commonwealth’s experts, which was once thrown out by the District Judge because Mrs. Black was acquitted. In a precedential ruling, the Third Circuit held that just because the state did not succeed in
convicting Mrs. Black with their fabricated evidence and perjury, they could still be held liable for violation of her civil rights. The Commonwealth appealed this decision to the US Supreme Court, but they denied certiorari. In August of 2018, the District Court Judge, with some regret,\(^1\) dismissed the Federal case, but let stand the State Court case against John Fallon and Montgomery County for false arrest. After some negotiations, the State agreed to settle with Mrs. Black’s estate. Mrs. Black had passed away from breast cancer during the pendency of the civil case.

After the lawsuit was reinstated, I was asked to prepare a Rule 26 report in the civil case and I have made that report, as well as the underlying photographs, reports, testimony and the PowerPoint described above available here:

https://app.box.com/s/0f95ewpstx9o7ffiejax

The report first discusses the cause of the fire, and then describes the spoliation of evidence committed by the authorities. (The judge did charge the jury on spoliation.) Finally, the report discusses the negligence, fabrication of evidence, and outright perjury committed by the law enforcement witnesses. These are serious charges and it pained me to be a witness to the misconduct being committed. Except for the monetary damages paid by the county, there has been no accountability.

\(^1\) The Judge, Anita Brody stated in a footnote:

Although I am constrained to follow the law of this Circuit and I believe I have done so here, I pause to note that I believe that the law could well require more to protect citizens from overly aggressive prosecutions. This is particularly the case where, as here, the only way to determine whether there is a “probability” that a person committed a crime is to utilize an expert to assess potential non-intentional causes of the alleged crime.
Although Fallon was considered an “expert” in determining the cause and origin of fires, he admittedly was not experienced in the specific circumstances of the case, namely, a potential electrical fire. It may be more in line with justice to expand the information that a judge should be required to take into consideration when reviewing probable cause in circumstances where the responding officers are not necessarily equipped to make an informed decision as to the cause of an alleged crime, and as a result, greatly impact an innocent person’s life. This is especially true where, as here, the time between the alleged crime and the filing of the complaint allows for such an investigation.

References

In the Common Pleas Court of Montgomery County Pennsylvania, Commonwealth v. Michele Black, case No. 925-13


https://keenanlaw.com/civil-rights-update-black-v-montgomery-county-et-al/
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