Fifty years of media and forensic science

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Fifty years of media and forensic science – is there really a CSI effect?

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50 Years of Forensic Science – editorial commentary from the Journal of the Forensic Science Society/Science and Justice.

Forensic Science Oral History project
What do we know about the effect of the media on the understanding of Forensic Science?
The idea of TV ‘influence’ is nothing new

There is a suggestion that TV programs such as CSI have an influence on jurors in terms of their expectations of the police, the legal professionals and the science presented.
"Sir Arthur Conan Doyle had a considerable influence on popularizing scientific crime-detection methods through his fictional character Sherlock Holmes.

It was Holmes who first applied the newly developing principles of serology, fingerprinting, firearm identification, and questioned document-examination long before their value was recognized and accepted by real life criminal investigators."

_The Hounds Collection Vol. 10, May 2005_
“Nurtured by novels, radio, television and the newspapers, the forensic scientist is almost always an omniscient university pathologist, who pronounces with authority on all subjects.”

D. Patterson, 1965
“Perry Mason Syndrome” - defense attorneys claimed that jurors no longer came to court requiring the prosecution to prove guilt beyond a reasonable doubt...

......but expected the defense to prove the accused’s innocence.
Google trends: CSI
CSI effect

From Wikipedia, the free encyclopedia

The CSI effect, also known as the CSI syndrome[1] and the CSI infection,[2] is any of several ways in which the exaggerated portrayal of forensic science on crime television shows such as CSI: Crime Scene Investigation influences public perception. The term most often refers to the belief that jurors have come to demand more forensic evidence in criminal trials, thereby raising the effective standard of proof for prosecutors. While this belief is widely held among American legal professionals, some studies have suggested that crime shows are unlikely to cause such an effect, although frequent CSI viewers may place a lower value on circumstantial evidence.[3] As technology improves and becomes more prevalent throughout society, people may also develop higher expectations for the capabilities of forensic technology.[4]

There are several other manifestations of the CSI effect. Greater public awareness of forensic science has also increased the demand for forensic evidence in police investigations, inflating workloads for crime laboratories. The number and popularity of forensic science programs at the university level have greatly increased worldwide, though some new programs have been criticized for inadequately preparing their students for real forensic work. It is possible that forensic science shows teach criminals how to conceal evidence of their crimes, thereby making it more difficult for investigators to solve cases.

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Background

The CSI effect is named for CSI: Crime Scene Investigation, a television program which first aired in 2000. In CSI, a fictional team of crime scene investigators solve murders in the Las Vegas metropolitan area. In each episode, the discovery of a dead body leads to a criminal investigation by members of the team, who gather and analyze forensic evidence, question witnesses, and apprehend suspects.[5][6][7] The show's popularity led to two spin-offs: CSI: Miami, which debuted in 2002, and CSI: NY, first aired in 2004. The CSI franchise's success resulted in the production of many similar shows.[6] In turn, the "CSI effect" has been associated with other crime shows, including American Justice, Bones, Cold Case, Cold Case Files, Cold Squad, Criminal Minds, Crossing Jordan, Exhibit A: Secrets of Forensic Science, Forensic Files, NCIS, Numb3rs, Silent Witness, Waking the Dead, Wire in the Blood, and Without a Trace.[1][6][7] Based on the Nielsen ratings, six of the top ten most popular television shows in the United States in 2005 were crime dramas, and CSI: Crime Scene Investigation reached the number one ranking in November 2007.[1][6][7]
Forensic science portrayed as high-tech magic, solving crimes quickly and unerringly.

One estimate suggests that 40% of the “science” on CSI does not exist, and most of the rest is performed in ways that are unrealistic.

Jury have unrealistic expectations of the science presented in court.

Police also may have unrealistic expectations of forensic science.
“omniscient university pathologist, who pronounces with authority on all subjects”
THE **CSI EFFECT**

Fact v. Fiction

How long does it take to process DNA samples?

**Real Life** vs. **On CSI**

- **A few weeks to several months**
- **Approximately 33 seconds**

"This TV show comes on and everyone starts watching it - including the cops and prosecutors - and submissions to forensic laboratories go through the roof."

Max Houck to the BBC

"On television, the toxicology results are available almost instantaneously. But when people find out that it can take several months, they can find that very difficult."

Forensic pathologist Dr Patricia McFeeley to the BBC
But.. what evidence is there that there really is an effect?

Forensic Science Education

Science within the Criminal Justice System

Science in “Forensic Science”
“we heard that the growth [in University courses] was a result of student interest in forensic science, which was, at least in part, stimulated by television dramas featuring forensic scientists and high profile coverage of forensic science in books and by the media.”

“undergraduate courses were a shocking waste of young peoples time and their parents money”

..... employers wanted an undergraduate course in science and a post graduate course in Forensic Science.
We must find a way of balancing student and job market demand for university courses.

"by 1997 there were only 5 science degrees ... with forensic in the title"

...by 2003 there were over 350 science degree courses with forensic in the name. What caused this explosion...CSI...”
CSI fuels forensic science degree rise

Television dramas such as CSI and Silent Witness are helping to fuel a boom in forensic science degrees, despite fears many courses fail to prepare students for the job, according to research.

The number of undergraduates studying forensic science and crime scene science has more than doubled over a five year period.  Photo: EDDIE MULHOLLAND

By Graeme Paton, Education Editor
10:00PM BST 16 Oct 2009
Academic ‘forensic’ courses in the UK

- Introduction of fees
- Forensic Science on Trial Select committee report
- Forensic Alliance established
- CSI first broadcast
- Silent witness first broadcast

UG courses and MSc courses
Criminal Justice System

Evidence recovery
Examination
Analysis
Interpretation
Presentation

Interface between Science and the Humanities

CRIME SCENE  LABORATORY  COURT

Evidence  Examination  Analysis  Interpretation  Presentation
Complex community … complex requirements

Investigator, information gatherer

Scientific analysis, appropriate technology, attention to detail, appropriate contextualised evaluation

Trier of Fact
Confidence in the expert witness
Confidence in the science presented
Identification

- Individuals
- Things

Comparison

- Known with the unknown
- General characteristics
- Individualizing characteristics

Exclusion or Inclusion

- Commonality
- Databases
Identification of individuals
Identification of things...
they do not indicate a revolutionary cascade of events signifying the eagerness of the legal system to capitalise on the benefits of scientific and technological advance. The detective propensities of Sherlock Holmes, created in 1887 by Conan Doyle, remained in the category of science fiction for a period approaching half a century before forensic science institutions were established in this country. We might, therefore, identify a further indication of the reticence of the law, and society, to come to terms with science.

Clearly, there was what we might call an “incubation period” before scientific innovations found practical application in the field of criminal investigation.

It is, of course, cardinal that any technical advances be validated before introduction into the court of law, but we might wonder as to the justification for incubation periods measured in units of quarter- and half-centuries. The members of the criminal fraternity have never been slow to exploit new technology; their incubation period might aptly be described as an immaculate conception.
No actual gun shot residues were analysed.
A group led by Joe Wang at the Univ. of California-San Diego, USA has developed a new forensic technique that can detect gunshot residue at the scene of the crime.

Gunshot residue consists of a large mix of compounds including both inorganic metals from the cartridge, bullet and the gun, and more complex organic compounds from the primer and gunpowder.
“The general public really does not understand how long it takes to get prints, DNA, handwriting, and that no magic button focuses on some small part of a video frame, for that matter, we can’t even really clean it up to make it clearer.

There is no appreciation for the overburdened labs and the fact that every piece of evidence can not be printed or tested for DNA.

They get the ideas from television so television is probably the best way to “re-educate” the public.”

MCAO Survey Report, Question 31/Narrative Response from anonymous attorney
Who took the ‘Science’ out of ‘Forensic Science’?

"It’s an inexact science."

"I didn't know you could get an actual degree in junk science!"
Resolved Question

Is Forensicate a real word?

I just heard the word being used on The Bill, a Police Drama in the UK. As in "take that gun and get it forensicated" or "forensicate that room". Me and My Husband fell on the floor laughing as it doesn't seem a real word.
Dr W: …. Forensic science traditionally has combed the academic world and to some extent the industrial world for advances that we can *foresnicate* and DNA was a prime example of that.

Chairman: What was that, foresnicate?

Dr W: Yes, a new word.

Chairman: Is that in the Oxford English Dictionary?

Dr W: I have been to America too often. I am sorry.

Chairman: No wonder you are blushing.
Who took the ‘Science’ out of ‘Forensic Science’?
1027 persons called for jury duty in a State court looked at jurors’ television viewing habits, their expectations that the prosecutor would produce scientific evidence, and whether they would demand scientific evidence as a condition of a guilty verdict. 

Expectations and demands for scientific evidence, there was little or no indication of a link between those preconceptions and watching particular television shows.

Jurors have significant expectations and demands for scientific evidence has more to do with a broader “tech effect” in our popular culture rather than any particular “CSI effect.”

Portrayal in the media

May aid the prosecution by exaggerating the value of some scientific evidence, viewing it as overly conclusive.

May raise the perceived probative value of the evidence.

Raises the game in terms of the presentation and explanation of forensic evidence within the courtroom.

Requires better education about science for the police and legal profession.
“Why is it that you have no memory of stabbing Travis?”

“Sharp direct out of the box – watching crime shows is teaching people to ask these types of questions ...”

Were you mad at Travis while you were stabbing him?

“Pretty specific .. Jury is really trying to get inside her head much like in criminal minds ...”
The *CSI* effect has become an accepted reality by virtue of its repeated invocation by the media.

No existing empirical research shows that it actually occurs

Thank You

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