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THE "CSI EFFECT" AND OTHER FORENSIC FICTIONS

By Kimberlianne Podlas*

I. INTRODUCTION

Recently, several newspaper and magazine articles have warned that a "CSI Effect" is impacting our criminal justice system.¹ According to these reports, the television drama CSI: Crime Scene Investigation is seducing jurors with promises of forensic evidence, thereby causing an epidemic of unjustified acquittals.²

Notwithstanding the popularity of such claims, they are not grounded in case studies or statistical data of increases in acquittals. Rather, they are based on anecdotes about cases wherein law enforcement lost its case while believing it should have won.³ However, anecdotes are not an adequate substitute for empirical evidence or a logical theory of media influence.

Though research shows that some televised depictions of law enforcement can influence people’s beliefs about the legal system,⁴ not every depiction does so. Moreover, even where one does, its effect is limited by how viewers interpret its dominant message. Consequently,

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since CSI's narrative focuses on police catching bad guys and celebrates forensics as infallible, it is not clear whether CSI helps or harm prosecutors.

Guided by media theory, this Article analyzes claims of the CSI Effect from both theoretical and empirical perspectives. After describing the operation of the CSI Effect and its alleged impact, this Article summarizes the effects-based literature explaining the entertainment media's contribution to the public's understanding of the law. Applying this body of research, this Article subjects claims of a CSI Effect to a set of empirical investigations. The first portion of the investigation surveys assistant district attorneys ("ADAs") regarding their beliefs in, and personal experience with a CSI Effect. While most ADAs believe an effect exists and has thwarted their own prosecutions, this Article shows that the majority of these cases resulted in convictions, thus disproving any CSI Effect. The second portion of the investigation is a plausibility study of the CSI Effect in which 538 mock jurors (comprised of 98 individuals on jury duty, 134 jury eligible adults, and 306 university students) deliberated to a verdict and identified (from a list) any reasons influencing it. The researcher then measured the CSI viewing habits of the mock jurors and scrutinized their verdict lists for evidence that CSI-oriented factors had entered into their decision-making. Presumably, frequent viewers of CSI operating under a CSI Effect would rely on CSI factors in their verdicts whereas infrequent viewers of the genre would not.

Contrary to the hype, the empirical data does not support the existence of a CSI Effect—at least not one that perverts guilty verdicts into wrongful acquittals. Indeed, the data shows that CSI-viewing mock jurors did not rely on CSI factors in reaching their verdicts (to any greater degree than did their non-viewing counterparts). In fact, only a very small portion of either group referenced such factors at all. Accordingly, it does not appear that there is a CSI Effect in light of the empirical data.

II. THE CSI EFFECT

A. CSI: Crime Scene Investigation

To understand the CSI Effect, one must first understand the nature of its namesake television series—CSI: Crime Scene Investigation. CSI is an hour-long drama featuring a police forensics team that investigates murders. Each episode begins with the discovery of a dead body,
launching a criminal investigation.\footnote{Id.} The team, usually after rejecting a false lead, identifies the culprit using a number of scientific techniques.\footnote{Id.} Moreover, the individuals comprising the CSI team are not only forensic technicians, but also police detectives. They question witnesses, round up possible suspects, and partner with district attorneys to charge suspects with crimes.\footnote{See generally id. (describing the history of the series and detailing the first four seasons of episodes).}

Since its premiere, CSI: Crime Scene Investigation has distinguished itself among television programs. It has been the top-rated drama since 2001,\footnote{Jim Benson, Fall Drama, BROADCASTING & CABLE, May 22, 2006, at 9; Paul J. Gough, Fox Places Four Shows in Top 10, HOLLYWOOD REP., May 17, 2006, at 4 (reporting 27 million total viewers); Gary Levin, Numbers Add Up For No. 1 CBS; Young Adults Go to Fox a 2nd Year, USA TODAY, May 25, 2006, at 3D (estimating a 25.2 rating). “One household share point is 1% of the U.S. households watching TV, or 1.09 million households. The U.S. has 109.6 million TV households.” Claire Atkinson, CSI, Pegged As Share Leader For Fall Season, ADVERTISING AGE, May 26, 2006, at 37.} earned several Emmy nominations,\footnote{In 2005, CSI was nominated for Outstanding Direction; in 2002, 2003, and 2004, it was nominated for Outstanding Drama; in 2001 and 2003, Marg Helgenberger was nominated for Lead Actress in a Drama. Awards for “CSI: Crime Scene Investigation”, Internet Movie Database, http://imdb.com/title/tt0247082/awards (listing CSI’s award nominations and wins since it began airing). It won the 2006 Emmy for Outstanding Cinematography for a Single-Camera Series, and the 2003, 2004, 2005, and 2006 People’s Choice Award for Dramatic Series. Id.} spawned the genre of television procedurals,\footnote{This includes spin-offs CSI Miami and CSI New York. See Sid Smith, The Pros and Cons of ‘CSI’ Spinoffs, CHI. TRIB., Feb. 12, 2006, available at http://metromix.chicagotribune.com/tv/mmx-0602120046feb12,0,275304.story?coll=mmx-television_heds.} and increased interest in college science programs.\footnote{Jessica Fender, TV Guided: Popular Shows Influence Students’ Career Choices, ADVOCATE, July 17, 2006, at A01. Enrollments in George Washington University’s graduate forensic science program increased 100% between 1999 and 2002, and enrollments in West Virginia University’s undergraduate forensic science undergraduate program increased 400% between its 1997 inception and 2005. See generally id.} In spite of its achievements, CSI’s legacy resembles the criminals it portrays more than the paragon of justice it celebrates.
B. The CSI Effect

Recently, CSI has been attributed with causing a rash of unjustified acquittals, exerting on trials what is called the CSI Effect.\(^\text{13}\) In its simplest formulation, the CSI Effect refers to CSI's impact on juror decision making.\(^\text{14}\) Allegedly, CSI causes jurors to interpret the absence of forensic evidence negatively against the prosecution resulting in a wrongful acquittal.\(^\text{15}\)

The CSI Effect is premised on the juxtaposition of television's presentation of forensic investigation and its reality. Even though forensic evidence is prevalent on CSI,\(^\text{16}\) it is a factor in only a small portion of real-life cases.\(^\text{17}\) Additionally, many of the techniques shown on CSI do not exist.\(^\text{18}\) Moreover, forensic scientists complain of "the perception of near infallibility of forensic science after watching a few episodes of CSI."\(^\text{19}\)

Proponents of a CSI Effect believe that the show instills in its viewers unreasonable expectations about the commonality of forensic evidence and teaches them that proof of guilt is just a simple forensic test away.\(^\text{20}\) Thus, when viewers weaned-on CSI become jurors, they will expect the prosecution to present forensic evidence as a prerequisite to conviction. If a prosecutor does not supply such evidence—even if it is irrelevant or supplanted by testimonial evidence—jurors will equate its absence with reasonable doubt and they will wrongfully acquit.\(^\text{21}\) According to a Peoria

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13. Houck, supra note 1; Roane, supra note 1.
prosecutor, presenting less evidence than viewers see on TV “is viewed as reasonable doubt.” Furthermore, besides requiring forensic corroboration, *CSI* might cause jurors to demand that such proof exhibit a certain degree of sophistication. Where the prosecution presents forensic evidence that does not resemble *CSI*’s standard, jurors might discount it. This may also “mak[e] it tough for the government to prove cases.”

Some believe that this elevates juror expectations to beyond the already-high burden of proof, thereby leading to acquittals. If jurors require forensic evidence to convict—regardless of the strength of testimonial evidence or relevance of forensics the prosecution’s burden may rise from proof “beyond a reasonable doubt” to “beyond all doubt.”

One prosecutor claimed, “We’re hearing stories where people, jurors will come back and say: ‘There was no DNA test. I expected that. And without that I’m not convinced.’”

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22. Roane, supra note 1. Another prosecutor complained that “[jurors] expect it to look like it does on television.” Houck, supra note 1, at 85. A police investigator echoed, “On TV, it’s all slam-dunk evidence . . . . Now juries expect the same thing—and that’s a big problem.” Roane, supra note 1, at 49.


25. This presumes that the prosecution regularly obtains convictions by proving guilt beyond a reasonable doubt burden, rather than by meeting some lesser standard.

26. Those who believe in the CSI Effect believe that TV creates a higher standard of proof that translates to acquittal. See Tyler, supra note 15, at 1076.

27. Id.; Mangino, supra note 18. One prosecutor lamented, “The burden [CSI] places on us is overwhelming.” Roane, supra note 1, at 50. Heightening the prosecution’s burden of proof, however, may merely correctly recalibrate it with the standard of beyond a reasonable doubt, thus bringing a diminished standard closer to its constitutional requirement.

28. Cole & Dioso, supra note 21. Tyler has argued that the syllogism of the CSI Effect contradicts the motivation of viewers to watch CSI, i.e., their desire to see “enactments of certain truth and justice.” Tyler, supra note 15, at 1067. This motivation should make it easier for the prosecution to meet its burden (or more difficult for the defense to convince jurors of reasonable doubt). Consequently, “if viewers respond to this stimulus by raising the bar and acquitting the wrongdoers, then reality fails to match fiction.” Id.
Importantly, the *CSI* Effect\(^29\) asserts neither that the absence of forensic evidence might tip the scales in an otherwise close case, nor that when forensic evidence is introduced at trial, jurors might scrutinize it more closely than in the past. Though *CSI* might exact these side-effects, the effect law enforcement complains of and that dominates the media, is that in the face of overwhelming proof of guilt, jurors will wrongly acquit.\(^30\)

**C. Evidence of the CSI Effect**

Despite the magazine covers and newsprint pages warning of a *CSI* Effect,\(^31\) there is “not a shred of evidence” to back it up.\(^32\) Rather, it appears that the *CSI* Effect better resembles an urban legend among prosecutors and police officers that has gained credence through repetition.\(^33\)

To date, the only proof of a *CSI* Effect is that some individuals believe in one. The study commonly cited to support the effect is a survey by an Arizona prosecutor of other Arizona prosecutors revealing that a majority of Arizona prosecutors believe in a *CSI* Effect.\(^34\) To buttress this

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29. Although the anti-prosecution *CSI* Effect dominates the media, other incantations of the *CSI* Effect include an anti-defense or pro-prosecution effect (where *CSI* helps the prosecution or harms the defense), an increased interest effect (where *CSI* causes the public to be more interested in forensics either as presented at trial or as a potential career), and the effect of believing in the *CSI* Effect. For a detailing of these alternate *CSI* Effects, see *Exposing the Media Myth*, supra note 14, at 431–33. District attorneys have also begun “grumbling about a new kind of *CSI* effect” that *CSI* teaches criminals how to hide their criminal deeds. Leonard Post, ‘*CSI* Effect’ on Crooks Seen by Prosecutors, NAT’L L.J., Feb. 13, 2006, at 4.

30. A homicide investigation supervisor explained, “Our biggest fear is that what these shows will mainly do is that these people will start getting acquitted.” Enric Volante & Kim Smith, ‘*CSI* Effect’ Impacts Justice in Tucson, ARIZ. DAILY STAR, May 8, 2005, at ¶ 19.


perception, prosecutors\textsuperscript{35} have pointed to the acquittal of Robert Blake as evidence of the CSI Effect in action.\textsuperscript{36} This acquittal, however, may not reflect a miscarriage of justice à la CSI Effect, but legitimate doubts about the evidence or weaknesses in the prosecution's case: "[F]or all we know, the jurors in such cases have felt genuine reasonable doubt, not a 'CSI' version of it."\textsuperscript{37} Indeed, at least one legal commentary deemed the Blake case a classic reasonable doubt scenario.\textsuperscript{38} Furthermore, one of the two jurors initially skeptical of Blake's innocence\textsuperscript{39} told the Los Angeles Times that she acquitted due to the testimony of two prosecution witnesses who saw Blake walking alone away from the restaurant minutes before the 911 call, combined with the reasonableness of Blake's alibi.\textsuperscript{40} This casts doubt on claims that Blake's acquittal was a function of the misinterpretation of absent forensic evidence, rather than a result of classic reasonable doubt.

Even prosecutors who claim to have experienced the CSI Effect firsthand apply the concept to classic reasonable doubt cases, rather than to those boasting overwhelming evidence of guilt.\textsuperscript{41} Many cases involve eyewitness testimony, itself known to be questionable,\textsuperscript{42} or traditional physical evidence (e.g., a murder weapon, bullets or shell casings, proceeds from the crime, a mask or jacket worn by the perpetrator, a car used to flee

\textsuperscript{35} It is not clear that the majority of prosecutors rely on only these two cases. Rather, it appears that the media repeatedly cites the same few prosecutors (who offer these same examples). These prosecutors evidently believe that Blake and Jackson were guilty, but wrongfully acquitted due to the jurors misinterpreting a lack of forensic evidence.


\textsuperscript{37} Cole & Dioso, supra note 21.

\textsuperscript{38} Id.

\textsuperscript{39} The jury's initial vote was 10-2 in favor of acquittal. Andrew Blankstein & Jean Guccione, "CSI" Effect or Just Flimsy Evidence? The Jury Is Out, L.A. TIMES, Mar. 18, 2005, at A1.

\textsuperscript{40} Id. at A34. (reporting that one Blake juror said that the evidence presented hadn't proved the prosecution's case, and another explained that they "went over every piece of evidence and broke down every witness").

\textsuperscript{41} Mark Hansen, The Uncertain Science of Evidence, ABA J., July 2005, at 48, 53 (stating that while many criminal defense attorneys dismiss the CSI Effect, "prosecutors swear it's real.").

\textsuperscript{42} BARRY SCHECK ET AL., ACTUAL INNOCENCE: WHEN JUSTICE GOES WRONG AND HOW TO MAKE IT RIGHT 55–100 (2001) (discussing problems with eyewitness evidence); Garrett L. Berman & Brian L. Cutler, Effects of Inconsistencies in Eyewitness Testimony on Mock-Juror Decision Making, 81 J. APPLIED PSYCHOL. 170 (1996) (finding that mock jurors found eye witness testimony less effective if there is inconsistent testimony).
the scene, or a marked bill used to purchase drugs) as opposed to forensic evidence (that discovered through or subjected to scientific tests). For instance, prosecutor Patricia Jessamy cited an acquittal in a first-degree murder case, where the victim’s wife and young daughter witnessed the shooting. Jessamy interpreted an alternate juror’s remark about the lack of physical evidence tying the defendant to the murder as confirmation that the CSI Effect had derailed the conviction. Lack of physical evidence, however, is different than lack of forensic evidence, i.e., evidence discovered or proved through scientific tests. Hence, the alternate juror was not necessarily referencing the absence of forensic evidence, but rather other indicia of presence. In a similar vein, a jury consultant complained that jurors in a rape-related civil case wanted DNA evidence, “even though there was... clear evidence from the [emergency room] that the victim had been raped.” Of course, medical records documenting forcible sex would show only physical indicia of an assault, not who committed it. Forensic DNA evidence, however, might be able to answer the question of identity.

44. Hansen, supra note 41, at 48, 53 (reporting that both the victim’s wife and daughter identified the defendant as the shooter).
45. Id. A different author also notes that a prosecutor attributed an acquittal to “lack of physical evidence”, but this is the same prosecutor and same case. See Houck, supra note 1.
46. Cole & Dioso, supra note 21 (citing comments of Laurie Levenson); Klein, supra note 43, at IA.
47. Volante & Smith, supra note 30 (A judge and some prosecutors have asserted that jurors pose more questions and deliberations take longer than in the past). Despite these claims, they have been unable to produce any statistical evidence that verifies a statistically significant increase in acquittals, jury questions about forensics, or jury questions in general. Nonetheless, even if the length or deliberations or number of jury inquiries had increased, without knowledge of the strength and type of cases, the context of the jury questions posed, or time-keeping of the length of deliberations in any case, let alone pre-CSI cases versus post-CSI cases, the validity of a such assertions are untestable. Indeed, courts have consistently held that jurors posing a question tells nothing of the strength of a case, validity of the defense, or bias. Rather, questions and facts of deliberations are meaningful only in context/ relation to the witnesses, case presented, crimes charged, issues argued, and legal instructions.
48. Robben, supra note 23. This consultant cited as a second example a property nuisance simulation. Three mock juries found for the defense, because the plaintiff did not provide evidence that toxic waste had contaminated the property. Id. Despite the consultant’s opinion, it would seem that proving the source of the nuisance, i.e., that it was toxic waste, would be critical.
49. Thus, notwithstanding the jury consultant’s misunderstanding, medical records could not prove that the defendant raped the plaintiff, though the DNA evidence sought by the jury could. Tellingly, the jury consultant referenced no criminal finding against the civil defendant (which would have been completed before the civil case and could have been introduced against the defendant).
50. The study of ADAs reported herein substantiates that beliefs in a CSI Effect do not
Accumulating evidence also casts doubt on the CSI Effect. Several experts have called the CSI effect illusory or incompatible with existing research. First, if CSI causes wrongful acquittals, then acquittal rates should have increased (or conviction rates should have decreased). To the contrary, they have not. Statistics from California, Texas, Illinois, and New York show that juries in felony cases convict virtually the same proportion of defendants as they did ten years ago (before CSI aired). This is true for crimes that are forensic evidence-intensive (such as rapes and murders) as well as those that are not (such as thefts).

Second, a CSI Effect runs counter to what is known about the relationship between evidentiary strength and juror decision-making. Those asserting a CSI Effect insist that evidence of guilt is overwhelming. Yet, research suggests that, where evidence of guilt is strong, jurors are both most likely to convict and unlikely to be influenced by extra-legal evidence. In other words, a case with overwhelming evidence of guilt is the type of case that is most resistant to the influence of irrelevant information. Accordingly, cases boasting overwhelming evidence of guilt should be especially immune from any influence of a television depiction.

D. Explaining Perceptions of the CSI Effect

Although these anecdotes do not prove a CSI Effect, they elucidate reasons that members of law enforcement might believe in one. An
advocate’s proximity to a case can cause her to overestimate its strengths and underestimate its weaknesses. Research has shown that a person’s desire to win influences their cognitive model to fit with that desired outcome. Throughout the decision making process, mental models shift toward coherence; that is, the information is mentally constructed to support a single conclusion. This coherence shift polarizes perceptions of the evidence, so that individuals with a slight inclination toward guilt “[a]mplify their perception of the case.”

Conversely, evidence weakly probative of guilt will be ignored or even transformed to create a mental model supporting guilt. Indeed, one study showed that when individuals entrusted with assessing the evidentiary strength of cases were confronted with accumulating information against their original conclusion, those individuals did not reassess their conclusions, but manipulated the new information to conform to their original conclusion. Individuals may selectively attend to evidence supporting their existing view and neglect information disputing it, further justifying their pre-existing impressions.

As a result, an advocate often finds his or her position the most compelling one. In fact, research demonstrates that prosecutors tend to overestimate the strength of their cases. Individuals who are highly motivated to resolve crime or provide justice for victim, such as law

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61. See Dan Simon, A Third View of the Black Box: Cognitive Coherence in Legal Decision Making, 71 U. Chi. L. REV. 511, 541–42 (2004). This phenomenon applies to everything from placing a bet on a horse, where the closer in time that she gets to placing the bet, the greater the gambler estimates her chance of winning, to playing the role of an attorney in an insurance case, where participants believe their side is the strongest. Id. at 541.

62. Id. (describing the relationship between positive valence of winning and coherence with desired outcome).

63. Id. at 544–45 (shifting toward state of coherence with emerging verdict).

64. Id. at 519.

65. Id. (“[E]vidence is bolstered from overall ambiguity to a belief beyond a reasonable doubt.”).

66. Cf. Tyler, supra note 15, at 1069 (describing an “overbelief effect,” where individuals who wish to convict, when confronted with weak evidence tend to distort it to make it stronger than it is).


68. Simon, supra note 61, at 541.

69. Cf. Tyler, supra note 15, at 1078 (“Prosecutors make unrealistic assessments as to the strength of their cases relative to jurors’ assessments.”); see also Simon, supra note 61, at 541–42 (citing a research study in which mock attorneys believe that fairness and facts are on their side, that their witnesses are more credible, and their client more likable).
enforcement, are also more likely to overestimate the probative value of evidence in favor of guilt.\textsuperscript{70} Meanwhile, they attempt to maintain the "illusion of objectivity" or believe that they are being objective.\textsuperscript{71} Additionally, prosecutors are privy to information that will never be known by the jury. This information may contribute to the prosecutor's overestimation of the weight of trial evidence.\textsuperscript{72} Hence, a prosecutor encountering an acquittal may be mystified when the outcome is not as she expected, and attempt to account for this in some way that maintains her original belief.\textsuperscript{73} Attributing an acquittal to a CSI Effect is one way of maintaining that belief. It keeps the original assessment of guilt intact and provides an explanation outside of the prosecutor's control. Further, the CSI Effect cannot be disproved. (The fact that cases said to evidence the CSI Effect exhibit weaknesses that the prosecutors citing them do not see supports this suspicion.)

III. MEDIA THEORY

A. Television's Influence on Viewers

Although the lack of present data substantiating a CSI Effect does not foreclose its possibility, it underscores the need for viable theory explaining such an effect. Most theories that explain the relationship between entertainment programming and viewer beliefs rely on cultivation.\textsuperscript{74} This foundational theory of media influence\textsuperscript{75} presumes that, under certain

\textsuperscript{70}. See generally Tyler, supra note 15, at 1070 (coherence effects interact with pre-existing attitudes regarding law and order).


\textsuperscript{72}. See Tyler, supra note 15, at 1078.

\textsuperscript{73}. Id.

\textsuperscript{74}. Steven 'Eggermont, Television Viewing, Perceived Similarity, and Adolescents' Expectations of a Romantic Partner, J. BROAD. & ELEC. MEDIA, 244, 248 (2004); see generally George Gerbner et al., Growing Up With Television: The Cultivation Perspective, in MEDIA EFFECTS: ADVANCES IN THEORY AND RESEARCH 17, 17 (Jennings Bryant & Dolf Zillman eds., 1994).

\textsuperscript{75}. Rebecca M. Chory-Assad & Ron Tamborini, Television Exposure and the Public's Perception of Physicians, 47 J. BROAD. & ELEC. MEDIA, 197, 199 (2003); see also John Sherry, Media Saturation and Entertainment-Education, 12 COMM. THEORY 206, 211 (2002); Gerbner et al., supra note 74, at 20 (George Gerbner is the forefather of this theoretical approach, which grew out of The Cultural Indicators Project); Robert Goidel et al., The Impact of Viewing Television on Perceptions of Juvenile Crime, 50 J. BROAD. & ELEC. MEDIA 119, 121 (2006) (Although some tenets of the theory have been challenged, it remains the base for understanding television viewing's impact of viewer perceptions).
circumstances, heavy exposure to a pattern of television content impacts viewer conceptions of reality.\(^7\)

According to the cultivation theory, television is society’s storyteller.\(^7\) Its pattern of character portrayals and narrative content both teaches viewers about society and socializes them.\(^7\) The heavy, long-term exposure to these recurrent messages cultivates in viewers common perceptions of reality that mirror what they see on TV.\(^7\) Thus, people who watch a great deal of television come to: (1) perceive the real world as resembling what they see on television, and (2) adopt attitudes conforming to that visage.\(^8\)

In its crudest formation, cultivation supposes that if a viewer constantly sees a lot of “x” on television, the viewer will presume that “x” is common.\(^8\) Thus, if a viewer sees a great deal of violence on television, the viewer will presume that society is violent;\(^8\) if a viewer sees infallible doctors on television, the viewer will believe that doctors are infallible;\(^8\) if a viewer sees television judges yell at litigants, she will assume that judges yell at litigants.\(^8\) Once this presumption takes root, it can penetrate the

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77. Shrum, supra note 76, at 257; Gerbner et al., supra note 74, at 18; JAMES SHANAHAN & MICHAEL MORGAN, TELEVISION AND ITS VIEWERS: CULTIVATION THEORY AND RESEARCH 13–14 (1999).

78. Michael J. Porter et al., Re(de)fining Narrative Events: Examining Television Narrative Structure, 30 J. POPULAR FILM & TELEVISION 23, 28–29 (2002); Shrum, supra note 76.


81. See Chory-Assad & Tamborini, supra note 75, at 199 (noting that television and its viewers interact in a multidirectional process in creating television’s messages); Rick W. Busselle, Television Exposure, Perceived Realism, and Exemplar Accessibility in the Social Judgment Process, 3 MEDIA PSYCHOL. 43, 44–45 (2001) (noting that people who watch a heavy diet of a particular type of programming will recall its lessons more easily and be more prone to its influence in real life).

82. See Diefenbach & West, supra note 80, at 432–33 (heightened depictions of violent crime).


84. See Podlas, Should We Blame Judge Judy? The Messages TV Courtrooms Send Viewers, 86 JUDICATURE 38, 38–40 (2002) (discussing the depiction of judges on reality
viewer's attitudinal base and become a decision-making factor.\textsuperscript{85} Hence, a viewer who believes that society is violent may be more afraid to walk alone at night, inclined to purchase a home alarm system, or likely to support increasing the police force.\textsuperscript{86}

Importantly, cultivation contemplates a long-term, cumulative effect resulting from the heavy viewing of a flood of consistent messages.\textsuperscript{87} Cultivation looks at the impact of heavy viewing and divides the world into two groups: those who have been subjected to this flood (heavy viewers) and those who have not (non-heavy viewers).\textsuperscript{88} This is neither a corollary impact (where two hours of viewing causes a lesser attitudinal impact and 200 hours of viewing causes a greater attitudinal impact) nor a single, short-term, watch-this-now-what-do-you-think impact.\textsuperscript{89} In terms of repeated viewing and repeated broadcasting, repetition is key.\textsuperscript{90}

Though the classic cultivation theory\textsuperscript{91} looked at exposure to the universe of television content,\textsuperscript{92} recent research suggests that exposure to specific types of programs or genres is a better predictor of viewer beliefs.\textsuperscript{93} To some degree, this recalibrates for proliferation of television channels and consequent diversification of programming. Classic

\begin{itemize}
\item \textsuperscript{85} Shrum, \textit{supra} note 76, at 261–62 (indicating that television's information is stored in memory and when retrieved, can influence judgment).
\item \textsuperscript{86} See, e.g., Diefenbach & West, \textit{supra} note 80, at 432; Busselle, \textit{supra} note 81, at 43 (finding that heavier television viewers believed in higher estimates of violent crime); Rick W. Busselle & L. J. Shrum, \textit{Media Exposure and Exemplar Accessibility}, 5 \textit{MEDIA PSYCHOL.} 255, 255 (2003) (stating that viewers are more likely to rely on information from television to develop understandings of events or social constructs when they have little direct experience).
\item \textsuperscript{87} See Sherry, \textit{supra} note 75, at 219.
\item \textsuperscript{89} Such an impact would reflect traditional effects research, where the before/after differences of exposure to a television message is measured. See Gerbner et al., \textit{supra} note 74, at 20.
\item \textsuperscript{90} Sherry, \textit{supra} note 75, at 212 (stating any message must rise to the level of "theme saturation.").
\item \textsuperscript{91} For a history of cultivation theory and its maturation, see \textit{id.;} Rossler & Brosius, \textit{supra} note 79, at 146 (discussing the early history of cultivation theory).
\end{itemize}
cultivation theory considered a limited world where television showed only 100 channels and viewers watched twenty or fewer hours of television per day.\(^94\) Therefore, since a heavy viewer could choose among only limited options, the theory appropriately considered television’s messages overall and measured viewing of television as a whole.\(^95\)

By contrast, the contemporary broadcast landscape can boast more than 400 channels airing around the clock.\(^96\) As a result, today’s heavy viewer does not necessarily see the same flood of content as another heavy viewer, but might choose different networks or genres of programming. This particularized and varied universe of viewing options was not contemplated by classic cultivation theorists. Consequently, modern cultivation measures cultivation (or defines viewing) in terms of proportional\(^97\) or genre viewing.\(^98\) Provided portrayals are relatively uniform within the television genre, heavy viewing of that genre best predicts perceptions consistent with portrayals found in that program type.\(^99\) Notwithstanding, both classic and modern cultivation theories focus on the long-term impact or accumulation of consistently repeated imagery or programming "bits"\(^100\) on television.\(^101\)


\(^95\) See id.; Gerbner et al., supra note 74, at 18, 21–22 (discussing the research strategy underlining the Cultural Indicators Approach).

\(^96\) Typical expanded cable offers an average of 70-80 channels. See, e.g., http://www.timeswarnercable.com/socal/products/cable/default.html.

\(^97\) Goidel, et al., supra note 75, at 121.

\(^98\) Cohen & Weimann, supra note 92, at 101–02. See generally Woo & Dominick, supra note 79, at 114 (citing Potter & Chang, supra note 80).

\(^99\) Chory-Assad & Tamborini, supra note 75, at 199–200.


\(^101\) See generally Maurice Vergeer, et al., Exposure to Newspapers and Attitudes Toward Ethnic Minorities: A Longitudinal Analysis, 11 HOW. J. COMM. 127, 130 (2000) (noting that negative depictions of ethnic minorities on television in general leads viewers to perceive such parties as a threat); Shrum & Bischak, supra note 88 (arguing that significant exposure to specific types of entertainment programming cultivates attitudes in viewers).
It is important to underscore that cultivation is rooted more in media
theory than psychology. \(^{102}\) Whereas psychology might be concerned with
how cultivation works at an individual level (e.g., what psychological
processes underlie the effects of television viewing on social judgment,
what factors enhance recall, or why television information is used despite
suspect veridicality), media theory focuses on the precise role and effects
of media in a media-saturated environment. \(^{103}\) Thus, the primary issues
pertain to discerning the circumstances under which the accumulation of
TV content exerts a measurable influence on viewers, and the type of
influence it exerts on them.

**B. Television's Influence on Beliefs About the Law**

Though legal scholars have been slow to recognize television as a
mediator of legal understandings, \(^{104}\) they now acknowledge that television
impacts the public's understanding of law. \(^{105}\) That television has such an
effect is hardly surprising. Because most people have little personal
experience with the legal system, \(^{106}\) they rely upon television as a tutor. \(^{107}\)

Indeed, research shows that law-oriented entertainment programming
can cultivate opinions regarding litigation and the behavior of judges,
attorneys, and even litigants. For instance, this author's previous multi-
year study demonstrates that television's reality courtrooms impact the
perceptions of heavy viewers, regarding appropriate judicial behavior, as

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102. Sherry, supra note 75, at 209 (discussing that because social psychological theories
developed “without consideration of the role and function of media,” they only peripherally
address contemporary media-saturation).

103. Id.

104. See SHERWIN, supra note 4, at 6 (proposing that the law may be affected by mass-
marketed visual images).

105. See e.g., Should We Blame Judge Judy?, supra note 84, at 38; ASIMOW & MADER,
supra note 4, at 11.

106. See Kimberlianne Podlas, Please Adjust Your Signal: How Television's Syndicated
Courtrooms Bias Our Juror Citizenry, 39 AM. BUS. L.J. 1, 2–3 (2001) [hereinafter Please Adjust
Your Signal]; Elliot E. Slotnik, Television News and the Supreme Court: A Case Study, 77
JUDICATURE 21, 22 (1993) (stating that television provides a majority of the public with its only
information about the law); Exposing the Media Myth, supra note 14, at 429–31; Richard K.
(2001); NEAL FEIGENSON, LEGAL BLAME: HOW JURORS THINK AND TALK ABOUT ACCIDENTS
(2000).

107. See, e.g., Please Adjust Your Signal, supra note 106, at 7–8, 15; Exposing the Media
Myth, supra note 14, at 429–31; see American Bar Association Report on Perceptions of the U.S.
Justice System, 62 ALB. L. REV. 1307, 1315 (1999). See generally SHERWIN, supra note 4
(discussing how television influences perceptions of the judicial system).
well as perceptions of litigants, or litigation. Consistent with the syndi-court portrayal of judges as vocal, active interrogators who make moral pronouncements, viewers who watched a significant amount of this genre expected real judges to exude the same behavioral attributes. In other words, heavy viewers of syndi-court believed that real judges would be vocal, active, and opinionated on the bench, whereas their non-viewing counterparts did not.

Also supporting a cultivation effect of legal entertainment programming on viewer attitudes, Pfau and Menkel-Meadow each found that television’s regular portrayals of attorneys can impact viewer beliefs about the behavior of real attorneys. As was the case with syndi-court, the attitudes of heavy viewers conformed to the images they saw on television. This author has similarly found that heavy viewers of syndi-court—i.e., those constantly exposed to its parade of litigants and claims regarding relatively small sums—came to perceive the behaviors they saw on television (including those of litigants) to be relatively normal in the real world.

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108. Should We Blame Judge Judy?, supra note 84, at 40.
109. Id.
110. Id. at 40–42.
112. See generally David B. Wilkins & G. Mitu Gulati, What Law Students Think They Know About Elite Law Firms: Preliminary Results of a Survey of Third Year Law Students, 69 U. CIN. L. REV. 1213 (2001). In a similar vein, the public’s perception of physicians tends to correlate with television’s shifting depiction of them. See generally Chory-Assad & Tamborini, supra note 75, at 199–200.
C. The Importance of the Story's Message

That television can cultivate understandings does not mean that any law-related program will do so. Rather, the narrative must achieve some level of saturation. This saturation is not quantified as a sum of two hours broadcasted or viewed, but described qualitatively as a flood of information. Thus, the depiction or program containing it must be broadcast frequently. Obviously, if a program or depiction is broadcast only periodically, the information amounts to only a drip or trickle, rather than a flood.

In addition, viewers must "read" that narrative or message, and it must be dominant enough to withstand dilution by competing messages. If the message is too subtle, is contradicted by other information, is overwhelmed by another message, or its narrative is inconsistent, it will be inconsequential to viewers. The way in which factual content impacts audiences appears somewhat inconsistent. Sometimes factual content merely makes the audience aware of an issue (the agenda-setting effect); at other times, it reinforces pre-existing attitudes; at still others, it seems to have no impact on values or direction of response whatsoever. In many instances, these differential impacts are due to inconsistent messages within or across television programs, lack of sufficient repetition of a message, or the fact that audiences understand stories differently than researchers expect. Instead of viewers understanding the message, the effect will be as though the story was written in a foreign language, or as though its volume were too low to be heard. Under such circumstances, because

114. "A 'narrative' is both a story that is told and the process of telling it." Kimberlianne Podlas, 13 TEX. WESLEYAN L. REV. 1 (2007) (pending publication; on file with author).

115. Sherry, supra note 75, at 219–20 (stating that the message must rise to the level of "theme saturation").

116. Thus, one does not test for an effect after fifty hours of viewing or 10,000 hours of viewing.

117. Syndi-court, for instance, is a genre broadcast several hours per day, five days per week, with a very consistent pattern of message—both within each singular program, and across the programs of the genre. The narrative, as comprised of the depictions of judges, litigants, and the purpose of litigation, is simple, obvious, and quite similar from show to show. These depictions can be applied to the world as a simple syllogism: judges yell on television, therefore judges yell in real life. See generally Podlas, supra note 114.


119. This premise is key to narrative analysis and narrative theory. See JONATHAN BIGNELL, AN INTRODUCTION TO TELEVISION STUDIES 86 (2004) (discussing the semiotics of television viewing).

120. See generally Podlas, supra note 114.
viewers will not pick up on a message, it cannot wield an impact.\textsuperscript{121}

Moreover, the narrative’s impact\textsuperscript{122} is confined to the audience’s understanding of it.\textsuperscript{123} Stories are polysemic,\textsuperscript{124} and audiences are active interpreters of these stories.\textsuperscript{125} Therefore, researchers cannot simply assign a meaning to a legal narrative, or presume that it is understood the way producers understand it.\textsuperscript{126} Instead, researchers must look to the way the audience interprets it.\textsuperscript{127}

The significance of the audience’s identification and understanding of a message is also applicable to legal programming. For example, entertainment and reality law programs commonly explicate simple legal rules, such as basic contract or tort law.\textsuperscript{128} One might expect this deluge of legal content to cultivate heavy viewers, as does behavioral content (such as depictions of judges and litigation). On the contrary, tests reveal that heavy viewers neither remember nor apply the dominant legal rules repeated on syndi-court any better than do non-heavy viewers.\textsuperscript{129} Apparently, viewers do not “read” this narrative or pick up on enough concrete legal content for it to exert a discernable effect.\textsuperscript{130} The explanation for this lack of effect on viewers might be that the moral and behavioral depictions in syndi-court programming are so dominant that they overwhelm the legal content, or that the legal content is not even “read” as part of syndi-court’s story. Indeed, this legal content is unlike the role of depictions (showing how a doctor acts) or of normative depictions

\begin{itemize}
\item \textsuperscript{121} See generally id.
\item \textsuperscript{122} Here, “impact” refers to both an attitudinal effect and subsequent second-order effect such as applying the attitude to decisions—e.g., a viewer believes that society is violent, and so purchases a gun. See id.
\item \textsuperscript{123} See Paul Gewirtz, Victims and Voyeurs: Two Narrative Problems at the Criminal Trial, in LAW’S STORIES: NARRATIVE AND RHETORIC ON THE LAW 135, 144 (eds. Peter Brooks & Paul Gewirtz, 1996) (noting the primacy of audience interpretation in narrative analysis); see also ASIMOW & MADER, supra note 4, at 11–12 (discussing process of creating meaning).
\item \textsuperscript{124} ASIMOW & MADER, supra note 4, at 11.
\item \textsuperscript{125} See Robert M. Cover, Foreward: Nomos and Narrative, 97 HARV. L. REV. 4, 19 (1983) (discussing multiple meanings of stories).
\item \textsuperscript{126} See generally BIGNELL, supra note 119. Narrative analysis studies the manner in which we construct, deconstruct, and make sense of these narratives and apply them. It blossomed in the 1980’s across a variety of disciplines. SHANAHAN & MORGAN, supra note 77, at 194–95; Exposing the Media Myth, supra note 14, at 452.
\item \textsuperscript{127} See, e.g., Alice Hall, Reading Realism: Audiences’ Evaluations of the Reality of Media Texts, J. COMM. 624, 625 (2003) (stating that meaning-construction depends on differences in audience interpretation of texts); Exposing the Media Myth, supra note 14, at 452.
\item \textsuperscript{128} This has been documented through content analysis, which systematically analyzes amount and programmatic content broadcast. See generally Podlas, supra note 114.
\item \textsuperscript{129} See generally id.
\item \textsuperscript{130} See generally id.
\end{itemize}
(showing what is commonly done, or what society's common reaction to a behavior is) shown to have a cultivation effect.

D. The Story of CSI

*CSI* saturates television and has aired on primetime television for six years. It is the top-ranked drama, and approximately twenty-five million people watch the show. It is also syndicated five days per week. This broadcast presence positions *CSI* as a potential source of cultivation. Upon watching the program, however, it is not clear that *CSI* 's story would produce an anti-prosecution sentiment. Fundamentally, *CSI* is not "about" forensic techniques, rather it is about cops—albeit ones trained in forensics—catching bad guys. Though forensic tests help narrow the field of suspects, the crime is usually solved through the standard tropes of good police work and confessions. Hence, forensics is not the story, but a plot device used to advance the narrative of police solving crimes (and being rather good at it).

Nevertheless, if forensics is read as the dominant narrative, the show celebrates forensics as nearly perfect. The *CSI* Effect presumes that jurors misinterpret the absence of forensic evidence at trial, but *CSI* never takes us into a courtroom—let alone a jury room. Thus, viewers are not

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135. *Exposing the Media Myth*, supra note 14, at 452 (Although *CSI* possesses an undeniable pop cultural currency, it does not monopolize the airways or even log the airtime of syndi-court. A primetime viewer of *CSI* would need to watch the show for more than two years to accumulate the same level of exposure they could in one month of syndi-court viewing).
137. In addition to focusing in on specific suspects, forensic tests can exclude a possible culprit. *See Exposing the Media Myth*, supra note 14, at 437–38.
138. Regardless of whether the perpetrator is brought to justice, he or she is identified. *See id.* at 433.
139. Furthermore, if jurors construe the absence of inculpatory forensics against the
taught that the prosecutor must present forensic evidence for the verdict to be guilty (or that when the prosecutor does not do so, the only correct verdict is not guilty). Instead, they are taught that all of the scientific investigation took place long before trial and led to the defendant’s arrest. Accordingly, there is no reason to believe that a juror upon noticing the absence of forensic evidence will invert this narrative against the prosecution. It is equally likely that such a juror will interpret *CSI*’s dominant narrative (i.e., of perfect forensics identifying the guilty and being the precursor to arrest) to mean that: (1) arrests are based on forensics; (2) forensics proves guilt; and (3) therefore, anyone arrested and on trial has already been proven guilty. This elevates forensics and equates the defendant’s status with already-proven actual guilt. Whether viewed through the perspective of cultivation, narrative theory, or common sense, it is difficult to see how this narrative could cultivate anti-prosecution views.

### IV. Empirical Investigations

#### A. Prosecutor Perceptions of the “CSI Effect”

Initially, the methodology of this study sought to investigate the *CSI* Effect by using an actual criminal case in which a *CSI* Effect supposedly had occurred (i.e., one in which guilt was proven beyond a reasonable doubt but the jury misinterpreted the absence of forensic evidence and wrongfully acquitted).

To find such a case, forty-two assistant district attorneys from the New York area were solicited at a CLE event to help identify cases in which they personally had seen a *CSI* Effect. Cooperating ADAs filled out and returned a form that asked:

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1. Even if viewer-jurors seeing a glut of forensic testing on *CSI* believe that there is a glut of forensic testing in reality, this belief does not translate into the syllogism underpinning cultivation. For instance, a viewer who sees a great deal of crime on television, and thus believes that there is a significant amount of crime in the real world, will not abandon that belief simply because she walked outside one day and did not see crime. The “*CSI* Effect,” however, inverts the dominant narrative and employs negative induction.

142. A similar set of questions has recently been included in a *CSI* “Impact” survey being conducted among federal law enforcement officers in North Carolina.
1. Do you believe that there is a CSI Effect (that CSI causes jurors to *wrongfully acquit* in cases where there is proof of guilt beyond a reasonable doubt, but no forensic evidence)?

2. If so, has a CSI Effect occurred in any cases on which you worked?

3. If the CSI Effect has occurred in one of YOUR cases, please list the name of the case, county, dates, and any other identifying information (such as defense counsel, crimes charged, etc.).

I had planned to locate the original court files and then transmit details to defense attorneys who would review them and propose alternative explanations (alternative to a CSI Effect) for acquittal.\(^{143}\)

The purpose of the survey was to identify a CSI Effect case feasible for study rather than to catalogue every New York City case in which a losing prosecutor contemplated a CSI Effect. Once a majority of the surveys (twenty-eight of the forty-two distributed) were returned, I commenced researching each individual court file.\(^{144}\) I began with twenty CSI Effect cases\(^ {145}\) from New York County,\(^ {146}\) reviewing case files for witness lists, jury questions, jury deliberations, charges, charge requests, and any other information incorporating forensic evidence. I hoped to identify the most promising cases (in terms of indicating a CSI Effect), review them in greater detail (such as by obtaining transcripts or portions thereof), and structure them as scenarios for testing.

1. Recollection Versus Reality

Although the ADAs involved in the study excelled in detailing cases in which they asserted a CSI Effect, a review of those case files revealed that their recollections were faulty. Of the twenty cases reviewed in which a CSI Effect was reported, nineteen had resulted in convictions. Because any CSI Effect (i.e., acquittal in the face of proof beyond reasonable doubt) demands acquittal, convictions essentially disprove any potential CSI

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143. Due to the cost of transcribing a trial transcript, I initially intended to focus on cases in which a CSI Effect had been identified or presumed. If there had been an acquittal—a necessary pre-requisite for the CSI Effect—no appeal would have been perfected, and therefore no transcript would have been transcribed.

144. These court files were the original files maintained in the document rooms of the respective county courthouses.

145. Twenty-two surveys mentioned New York County cases, but only twenty cases could be confirmed. Additionally, three surveys mentioned the same case. The additional six surveys noted cases in Brooklyn.

146. New York County was chosen out of convenience; it was the closest court, offered the easiest access to court files, and contained the majority of cases referenced.
Effect.

Since this ADA survey had been used to locate an adequate case for study, the fact that so many CSI-infected cases were devoid of any CSI Effect was initially deemed a false start and failure. In retrospect, the survey data indicates that the CSI Effect is indeed more perception than reality. Although there is no reason to believe that the New York County ADAs have significantly different recollections than other ADAs, 50% of all prosecutors believed that a CSI Effect exists even though it is unrelated to reality.


Lacking a "real" CSI case, it became necessary to devise one. Ensuring that the constructed scenario could adequately capture the alleged phenomenon required identification of what underlies the CSI Effect. The CSI Effect rests on several premises: (1) that CSI impacts viewers; (2) that this impact remains through future jury service; (3) that CSI factors enter into the decision-making process of viewer-jurors; and (4) that viewer-jurors invert CSI's story of forensic investigations to harm the prosecution. These premises converge to the central issue of whether CSI factors influence the decision-making of CSI viewer-jurors as opposed to non-CSI viewers. Therefore, in constructing a scenario, it is important to understand the jury decision-making process.

Factors are the elemental components of decision-making. Research discloses that jurors decide cases by assigning meaning to and attempting to connect sets of factors. By considering and combining these pieces of information, jurors determine whether the evidence

147. The CSI Effect, if operating in real cases, also presumes that any impact survives the group deliberation process, the court's charges, and the reality of the case. This study, however, is not constructed around a real case. Furthermore, as explained below, since this study is one of the first to study the wrongful inclusion of CSI factors, it investigates individual verdicts, rather than considering jury verdicts (which would implicate group deliberations).

148. Whether CSI factors impact the prosecution negatively is important only once it is shown that such factors insinuate themselves into decision-making. Cf. Simon, supra note 61, at 520–21 (discussing lack of dominance of one set of factors over another).

149. See id. at 520.

150. This applies to both individual jurors as well as juries.

151. See NORMAN J. FINDEL, COMMON SENSE JUSTICE: JURORS' NOTIONS OF THE LAW 65, 69 (1995) (describing how jurors are likely to use narrative thinking to understand cases); SHERWIN, supra note 4, at 24, 26–27 (citing studies showing that jurors use common knowledge to establish narrative patterns); see also Dan Simon, A Third View of the Black Box: Cognitive Coherence in Legal Decision Making, 71 U. CHI. L. REV. 511, 561 (2004) (stating these factors are influenced by pre-existing stories or are reconstructed into a story).

152. SHERWIN, supra note 4, at 24 (stating research shows that jurors put together pieces of
THE "CSI EFFECT" establishes the elements of the crime charged, disposes of a defense, and ultimately whether it proves guilt beyond a reasonable doubt. Even factors that are irrelevant, drawn from a juror’s personal experience, objectively incorrect, or biased can be ingredients in jury decisions. Also, the primacy of factors remains regardless of the psycho-legal model of decision-making to which one subscribes, be it Bayesian, Story Model, coherence-based reasoning, or variations of common sense justice.

Simon illustrates the point with an example of a person crossing the street. When a pedestrian decides whether to cross the street, she will first locate a crosswalk and look both ways for cars, or determine how much time is left on a pedestrian crossing. If she sees cars, the pedestrian might estimate their distance, speed, and number. Thus, she begins her decision-making by considering factors, and then weighing them, in relation to the ultimate decision whether to cross the street. If two cars per second are speeding past at eighty miles per hour on a four-lane highway, she will not cross. Conversely, if only one car is far on the horizon and there is a green light in her favor, she will cross. The decision-maker, such as the pedestrian, must collect information before she can weigh it and decide whether to cross.

This is as true in the jury room as on the sidewalk. Hence, regardless of the direction of evidence or the final result of acquittal or conviction, jurors will begin by considering a set of factors evoked by the crime information).

153. See Christy A. Visher, Juror Decision Making: The Importance of Evidence, 11 L. & HUM. BEHAV. 1, 3 (1987) (stating personal attributes of jurors minimally affect veridical judgments). Irrelevant or “extra legal” factors, i.e., those irrelevant to the determination of guilt, include juror religion, whether the defendant smiles, and race or ethnicity. Id.

154. See id. (stating personal attributes of jurors such as age, gender, race and occupation affect veridical judgments).


157. Simon, supra note 61, at 520.

158. FINKEL, supra note 156, at 2 (proposing common sense justice theory). Even theories urging the influence of strength of evidence (SOE) acknowledge the primacy of factors. See Visher, supra note 158, at 2 (enumerating types of factors that impact decision making within SOE).

159. See Simon, supra note 61, at 536 (stating decisions to cross streets are contingent on one’s experiences concerning vehicles and driver behavior).

160. Decision-making initially cannot be a function of the strength of evidence, for strength of evidence is determined by reference to the factors.
charged, evidence presented, or story told. As a result, decisions are made within certain problem spaces and those spaces evoke the factors considered.

Provided the issue is salient or evokes a particular crime or story, the factors are generally the same regardless of the direction of the proof. For example, in a robbery case where the issue is identity, jurors will likely consider a multitude of factors, including any prior relationship between the parties, the witness’s eyesight, her ability to see, lighting, physical obstructions, other mechanisms of proof, alternative theories, credibility, vengeance, an alibi, and the defendant’s whereabouts. Jurors do this analysis whether there are nineteen perfectly sighted witnesses and video footage, or a single witness caught by surprise on a dark and stormy night. The verdict results from the assessment of those factors in relation to the story, the evidence proffered, and the crime charged. Consequently, determining whether CSI impacts viewer-jurors requires designing a scenario that allows us to determine whether CSI viewers use CSI factors in their decision-making.

3. Confirmation of Factors in Decision-making

A set of mock deliberation exercises confirm that juries consider the same types of factors regardless of the weighing of evidence. Two scenarios were used, but in order to manipulate strength of evidence, each was re-structured into a “complete evidence” (“C”) and an “incomplete evidence” (“INC”) version. Scenario I was a ticket scalping case. Its incomplete version was missing the testimony of the arresting officer which was necessary to prove each element of the crime, therefore presenting weaker evidence of guilt. Scenario II was a violation of a probation case based on the possession of prescription drugs. Its

161. See Simon, supra note 61, at 520.
162. Id.
163. See infra Part III. C. (describing confirmatory study).
164. See Simon, supra note 61, at 536 (listing factors used by jurors in decision-making, and giving examples of how crossing a street and eyewitness testimony both draw upon the juror’s background experience).
165. In a criminal case, the assessment of factors is compared to the story or elements of the crime in order to determine the direction and strength of the evidence and, thus, the verdict. For example, whether a witness could not see or could see very well, or that a video of a robbery is in color, a close up, and clear, or rather fuzzy and poorly pixilated would be factors to be weighed.
166. This also presumes that juries do so prior to or as a way to assess strength of evidence.
167. Thus, each of the two scenarios had two versions, totaling four different scenarios.
168. The original trial transcript was fifteen pages long.
169. The original hearing transcript was twenty-four pages long.
incomplete version was missing the testimony of a dispensing pharmacist, which was necessary to prove each element of the crime, therefore presenting weaker evidence of guilt.

The scenarios were deliberated by four mock juries. Each jury contained five or six individuals randomly empanelled.\textsuperscript{170} These individuals were jury eligible support staff (e.g., mailroom, duplication, word processing, couriers, etc.) working at a public interest office.\textsuperscript{171} Jurors in each group independently read the scenario, and then, as a group, "deliberated" to reach a verdict. One juror was chosen to conspicuously tape-record and list the factors mentioned during deliberations.\textsuperscript{172} Once a verdict was reached, the respective juries read and deliberated on a second scenario. The researcher reviewed the verdict sheets against the tape-recordings to ensure that all factors mentioned in deliberations had been recorded.\textsuperscript{173} These recordings were then translated into categories of factors.\textsuperscript{174} The factors mentioned by jurors deliberating on the incomplete or weaker evidence scenarios were compared against the factors mentioned by jurors deliberating on the complete or stronger evidence scenarios.\textsuperscript{175} With the exception of questions about legal instructions or why charges would be brought, the factors considered did not significantly differ depending on completeness or strength of evidence.\textsuperscript{176} The primary factors

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
 & Scen. I (C) & Scen. I (INC) & Scen. II (C) & Scen. II (INC) \\
\hline
Group 1 & 1st & G\#2 & 2nd & G\#2 \\
paired with & G\#2 & & & \\
Group 2 & 1st & G\#1 & 2nd & G\#1 \\
paired with & G\#1 & & & \\
Group 3 & 2nd & 1st & G\#3 & G\#4 \\
paired with & G\#3 & & & \\
Group 4 & 2nd & G\#3 & 1st & G\#3 \\
paired with & & & & \\
\hline
\end{tabular}
\caption{Scenario distribution for each group.}
\end{table}

\textsuperscript{173} Where a factor was mentioned in deliberations, but not recorded, it was noted as an addition to the list.

\textsuperscript{174} For example, both questioning whether the police officer was telling the truth and saying "I'm not sure that's really believable" were categorized as "Credibility."

\textsuperscript{175} Because this pre-test is included only to explain how the theory is used to test the CSI scenarios, details of the statistical analysis are not included.

\textsuperscript{176} For example, Scenario II (C), which included testimony of a pharmacist, also prompted questions about whether the pharmacist was licensed. It was not deemed to be a significant difference, since this could have no bearing on the determination of guilt. The incomplete scenario did not include testimony from pharmacists and therefore would not prompt discussion
considered by these juries included: credibility, motive to lie or interest in the case, plausibility of story, and mens rea of the defendant.

4. CSI Factors in Juror Decision-Making

A set of mock deliberation studies was designed as a plausibility demonstration of the CSI Effect. The study was not concerned with whether CSI could have some type of effect under various evidentiary scenarios or weights, but only with what law enforcement purported was occurring—that rightful convictions are being subverted due to CSI factors infecting juror decision-making.\(^{177}\)

Presumably, if CSI impacted verdicts (here, acquittals), we would expect frequent viewers of CSI to rely on CSI factors in their verdict decision-making (to a statistically greater degree than non-frequent viewers). Thus, to determine whether CSI improperly impacted the decision-making of CSI viewer-jurors,\(^ {178}\) I compared the factors that frequent CSI viewers considered in reaching verdicts with those that non-viewers considered.

B. The Design of the Scenarios

Two factually balanced scenarios\(^ {179}\) were constructed. One recounted an alleged rape,\(^ {180}\) a crime common to CSI.\(^ {181}\) Another featured a violation of probation involving prescription drug possession.\(^ {182}\) The scenarios of her credentials.

177. The first investigations into the CSI Effect began by looking at whether CSI factors impact the veridical decision-making of CSI viewers. CSI factors impact verdicts only when it is shown that CSI factors enter into decision making.

178. The CSI Effect (in its present incantation) is not about a balanced case; it is not about a very close case where a juror reasonably could go either way. Neither is it about a case where the presence or absence of forensic evidence might tip the scales toward acquittal. Rather, those complaining of such an effect insist that despite evidence of guilt beyond a reasonable doubt, visions of CSI prevent conviction.

179. Pre-testing revealed that the legally relevant evidence was balanced, i.e., it did not favor either party. Initially, each scenario was reviewed by one defense attorney and one prosecutor.


181. See generally Flaherty & Marrinan, supra note 5.

182. Though some studies show that rape is assessed the same as other assault scenarios, others show that extraneous factors can impact verdicts in various, seemingly contradictory, ways. Consequently, a non-rape scenario was added. Compare Visher, supra note 158, at 8, with Laura S. Guy & John F. Edens, Juror Decision-Making in a Mock Sexually Violent Predator Trial: Gender Differences in the Impact of Divergent Types of Expert Testimony, 21 BEHAV. SCI. & L. 215, 229 (2003) (stating gender of women jurors in rape trials can produce variety of seemingly inconsistent effects).
neither referenced forensic evidence or tests, nor presented any critical issues where forensic testing would be necessary. To study whether CSI factors entered into veridical decision-making (when no forensic evidence had been introduced or argued), forensic-oriented factors were excised. Instead, they were limited to issues of credibility. Accordingly, the rape scenario was structured as a “what happened” question (the victim claimed the sexual intercourse was by force, whereas the defendant claimed it was consensual) and the violation of probation scenario rested on whether the defendant had knowledge (such as whether he knew that the prescription he filled for his mother was forged).

The evidence in the scenarios was balanced in that it presented two competing, but equally viable, stories (one on behalf of the prosecution and one on behalf of the defense). In the context of a criminal case, “balanced evidence” should not be confused with a “close case.” A “close case” occurs where the prosecution almost meets the burden of proof, but fails to do so, whereas “balanced evidence” denotes some degree of equality. As relatively equal evidence does not definitively tilt the scales beyond a reasonable doubt, it does not amount to a close case. This distinction is a function of the mathematical difference between the criminal burden of proof beyond a reasonable doubt, in which the scales overwhelmingly drop in favor of guilt, and a balance of evidence, in which the scales remain rather steady. Since the scenarios were balanced and rested on credibility—something that could not be assessed through a paper-pencil scenario—they directed a verdict of not guilty. “Directed verdict” is used in a quasi-legal, rather than in a colloquial sense. Since

183. Because the issue pertained to consent, not identity, forensic evidence could not shed light on the critical issue of consent.

184. The only way to provide evidence on each side was to supply testimonial evidence on behalf of each side. This may present other issues, since it implies that the defendant may have some burden of production where there is none. Nonetheless, this would not harm the prosecution.

185. Suppose a prosecutor amasses evidence making it eighty-eight percent likely that the defendant committed the crime. Although the evidence clearly favors guilt, it fails to meet the beyond a reasonable doubt burden necessary for conviction. The case would not be close, i.e., almost amassing guilt beyond a reasonable doubt, because the evidence does not come close to definitively tilting the scales, but the verdict would be not guilty.

186. The only way to determine that guilt was proven beyond a reasonable doubt would be to see and hear the witnesses, and determine that one was far more credible than the other. Because the paper-pencil scenario prevented respondents from doing so, it was not possible to prove guilt beyond a reasonable doubt. As a result, a not guilty verdict is the only legally correct one. Exposing the Media Myth, supra note 14, at 458–59.

187. A scenario or evidence that “directs a verdict” is one in which as a matter of law “no other reasonable conclusion is legally deductible from the evidence.” 40 CAL. JUR. 3D, JUDGMENTS, § 93 (3d ed. 2006).
it was not possible to assess which side was telling the truth, it was not possible to prove guilt beyond a reasonable doubt. Hence, each scenario could result only in a not guilty verdict.

A balanced scenario was chosen over one heavily weighted toward guilt for a number of reasons. What little research exists regarding the impact of extra-legal factors (such as non-evidentiary *CSI* factors) on decision-making suggests that they matter only in balanced cases.\(^{188}\) Similarly, where there is strong evidence of guilt, jurors will more likely convict *without* being influenced by extraneous variables or legal evidence.\(^{189}\) Hence, a balanced evidentiary environment is the best one in which to test for the influence of extra-legal factors. By contrast, crafting an absolute conviction scenario could obscure a *CSI* Effect where there is one or imply an effect where there is not one.

Moreover, creating a functional scenario weighted toward guilt borders on the impossible. First, it presumes an underlying premise that is not testable—that the evidence constructed must result in a guilty verdict. Second, it is questionable whether "resulting in guilt" can be operationally defined. There is no agreement on "what makes a case compelling," let alone an accepted metric to quantify strength of evidence.\(^{190}\) Third, such a scenario ignores the defense, strength of witnesses, re-conceptualization of evidence via cross-examination, and closing arguments.\(^{191}\) It also disregards the fact that the defense need not present an alternative story or alibi, but may simply cite the prosecution’s failure to meet its burden. Additionally, weighting the evidentiary scenario so as to preclude any conclusion other than guilt, regardless of the best defense, might cause it to lose any semblance of reality. Indeed, the instant study pre-tested seven guilt-weighted scenarios, yet could not create one that consistently produced a guilty verdict.\(^{192}\) Thus, the study utilized two balanced scenarios.

\(^{188}\) Carlson & Russo, *supra* note 155, at 91–92.

\(^{189}\) *Id.*

\(^{190}\) *See* Devine et al., *supra* note 59, at 686.

\(^{191}\) Indeed, sometimes forensic evidence is relevant to guilt or innocence, or can shed light on the case. *See* BARRY SCHECK ET AL., *ACTUAL INNOCENCE: WHEN JUSTICE GOES WRONG AND HOW TO MAKE IT RIGHT*, 218–19 (2001).

C. Mock Deliberations

Three mock deliberation studies were conducted sequentially, over eleven months. Deliberation #1 comprised a mock jury of 306 undergraduate and graduate students enrolled in summer academic and review courses at a large state university in the Northeastern United States. Deliberation #2 comprised a mock jury of 134 jury-eligible adults drawn from graduate students enrolled in summer academic and review courses at the same university used in Deliberation #1. And, Deliberation #3 comprised a mock jury of 98 individuals appearing for jury duty in New York. This information is repeated in Chart I below.

Mock jurors completed a survey regarding their CSI viewing habits. Next, they read a brief scenario, recorded their respective verdicts on an attached verdict sheet, and ticked the “reasons” that impacted them. Respondents who found the defendant not guilty were asked whether any of the following factors impacted their decision:

1. Victim has reason to lie
2. Evidence not tested for fingerprints
3. Defendant may have committed offense BUT prosecution did not prove beyond a reasonable doubt
4. Prosecution did not perform forensic tests that could have shown Defendant was innocent
5. No DNA evidence / no DNA test completed
6. Defendant’s story seemed more believable
7. Prosecution did not perform forensic tests to prove Defendant was in apartment or bedroom
8. Other

193. Exposing the Media Myth, supra note 14, at 429 (describing the first portion of this study). See generally Houck, supra note 1, at 86 (referencing the previous study as the only CSI Effect study in existence, and expressing the need for further studies of the CSI Effect, which the instant study addresses).

194. This used two axes of self-report data. Respondents quantified their viewing on a forced-choice scale of hours per month and then described their viewing habits using a Likert-type scale. The survey also asked about general television viewing and law-related television viewing habits.

195. This was modeled on a survey used by Kuhn’s team to study factors influencing mock juror decisions (to assess their reasoning skills) and has been endorsed by others. See Monica L. McCoy et al., The Effect of Jury Deliberations on Jurors’ Reasoning Skills, 23 L. & HUM. BEHAV. 557, 563 (1999).
D. Analysis and Results

1. Analysis

To isolate any connection between CSI viewing and the use (in verdicts) of CSI factors, researchers identified respondents as either heavy viewers or non-heavy viewers of CSI. Since the issue is whether CSI affects viewers who might later become jurors, impact is measured at the individual (juror) level rather than the group (jury) level. Due to the number of interacting variables inherent in the group process, viewing jury verdicts before establishing impact at an individual level could mask any CSI Effect. Masking could occur in situations where the CSI Effect actually influenced an individual but the CSI Effect is not apparent in the resulting group verdict because of the balance within the deliberatory group.

Furthermore, since the CSI Effect can exist only if there is an acquittal, this analysis focused on not guilty verdicts. If CSI impacted heavy viewers of the program, then CSI factors should enter into their decision-making. Hence, viewers influenced by CSI would consider reasons 2, 4, 5, and/or 7 (CSI factors).

196. The consideration of the group might be important if embracing a sociological or psychological perspective, or if CSI was previously determined to exert an individual impact. It is not, however, an appropriate initial inquiry.

197. That the verdicts here were individual ones should not alter the results. The issue (as in most cultivation research) is whether program content influences heavy viewers differently than non-heavy viewers. Thus, we measure any impact at an individual level, and presume that if there is an effect, it will follow the viewer if she becomes a juror. If the deliberation took place in a group setting, it might obscure a CSI Effect or be confounded with some other factor.

198. Additionally, surveys that were internally inconsistent or incomplete were discarded. The difference between "total respondents" and "total usable verdicts" is reflected in Chart I.
### CHART I

<table>
<thead>
<tr>
<th>Mock Deliberation Sequence</th>
<th>Mock Jurors</th>
<th>Total Respondents</th>
<th>Scenario</th>
<th>Total Usable Verdicts</th>
<th>Acquittals</th>
<th>Acquittal rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 – Summer 2005</td>
<td>Undergrad/grad students</td>
<td>306</td>
<td>Rape</td>
<td>291</td>
<td>250</td>
<td>95%</td>
</tr>
<tr>
<td>#2 – Spring 2006</td>
<td>Jury-eligible adults</td>
<td>134</td>
<td>Rape</td>
<td>54</td>
<td>52</td>
<td>96%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ticket scalping</td>
<td>61</td>
<td>60</td>
<td>98%</td>
</tr>
<tr>
<td>#3 – Summer 2006</td>
<td>Individuals on jury duty</td>
<td>98</td>
<td>Rape</td>
<td>47</td>
<td>46</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ticket scalping</td>
<td>41</td>
<td>41</td>
<td>100%</td>
</tr>
</tbody>
</table>

### CHART II

**Mock Deliberation #1: Factors Used in Decision-Making**

<table>
<thead>
<tr>
<th>CSI Viewer Profile</th>
<th>Acquittals (n=250)</th>
<th>Jurors using 1 or more CSI factor</th>
<th>Jurors using 2 or more CSI factors</th>
<th>Jurors using 3 or more CSI factors</th>
<th>Jurors Using 4 CSI factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Viewer</td>
<td>187</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Non-heavy Viewer</td>
<td>63</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Statistically significant 199</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

---

199. Statistical analysis examined the relationship between CSI viewing and factors used in veridical decisions (i.e., the inclusion of CSI factors). The use of ANOVA (a statistical term for analysis of variance between two groups of different sizes) determined whether heavy viewers of CSI were influenced by CSI factors more than were non-heavy viewers. This was tested at $p > 0.05$ level of significance.
### CHART III
**Mock Deliberation #2: Factors Used in Decision-Making**

<table>
<thead>
<tr>
<th>CSI Viewer Profile</th>
<th>Acquittals (n=112)</th>
<th>Jurors using 1 or more CSI factors</th>
<th>Jurors using 2 or more CSI factors</th>
<th>Jurors using 3 or more CSI factors</th>
<th>Jurors Using 4 CSI factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Viewer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- rape</td>
<td>38</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>- tkt scalping</td>
<td>44</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-heavy Viewer</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- rape</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- tkt scalping</td>
<td>15</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Statistically significant</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### CHART IV
**Mock Deliberation #3: Factors Used in Decision-Making**

<table>
<thead>
<tr>
<th>CSI Viewer Profile</th>
<th>Acquittals (n=87)</th>
<th>Jurors using 1 or more CSI factors</th>
<th>Jurors using 2 or more CSI factors</th>
<th>Jurors using 3 or more CSI factors</th>
<th>Jurors Using 4 CSI factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Viewer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- rape</td>
<td>31</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- tkt scalping</td>
<td>35</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-heavy Viewer</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- rape</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>- tkt scalping</td>
<td>6</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Statistically significant</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
THE "CSI EFFECT"

CHART V

COMBINED ACQUITTAL RESULTS

<table>
<thead>
<tr>
<th>CSI Viewer Profile</th>
<th>Jurors using 1 or more CSI factors</th>
<th>Jurors using 2 or more CSI factors</th>
<th>Jurors using 3 or more CSI factors</th>
<th>Jurors Using 4 CSI factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Viewers (n=338)</td>
<td>17</td>
<td>10</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Non-heavy Viewers (n=115)</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

2. Narrative Summary of Results

As reflected in Charts II, III and IV, the data did not disclose any statistically significant difference between the factors used by heavy and non-heavy CSI viewers. This was true whether deliberation sample groups (Groups 1–3) were considered independent of one another (Charts II, III, IV) or as a total sample as intended (Chart V). This was also true whether the scenarios were considered separately or together. There were also no apparent differences in the reasons for those acquittals (i.e., there was no evidence that CSI factors played a part in the verdicts of CSI viewers to any greater degree than those of the non-viewers). Indeed, it appeared that CSI factors were irrelevant in both instances.

E. The Lack of Empirical Evidence of a CSI Effect

Despite claims to the contrary, the empirical data does not show any anti-prosecution CSI Effect. Nothing indicates that heavy CSI-viewing jurors consider CSI factors in reaching verdicts any more than non-heavy viewers. In fact, only a small portion of either group stated that any CSI factors informed their verdicts.\(^\text{200}\)

Hence, it does not appear that CSI

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\(^{200}\) Although the 538 respondents do not perfectly reflect an actual jury, the sample included 98 individuals who were on jury duty as well as 134 jury eligible college students. Cf. McCoy et al., supra note 195, at 573 (stating that jury studies using college students are virtually identical to jury studies using community members in respect to verdict or victim ratings). This diversity created a more realistic jury than the commonly used sample of college students since it reduces several issues regarding verisimilitude. Brian H. Bornstein & Sean G. McCabe, Jury Decision-making: Jurors of the Absurd? The Role of Consequentiality in Jury Simulation Research, 32 FLA. ST. L. REV. 443, 444 (2005) (discussing issues in jury simulations and methods to overcome).
factors influence the veridical decision-making of CSI viewers. Accordingly, CSI viewing does not appear to lead to a CSI Effect which results in wrongful acquittals. Apparently, audiences either do not watch CSI in the way that prosecutors fear or do not pick up on any anti-prosecution message in the narrative. Instead, viewers might read the story as just another show where police catch bad guys, but not connote any negative meaning to the narrative about forensics.

These results, however, cannot definitively prove that CSI has no effect. The experimental design prevents interpreting them as a conclusive cause and effect. As with most cultivation studies, external variables may impact the results. "Some authors [have] questioned whether exposure to [certain] television [messages is a] cause or [an] effect or both ...." Moreover, though mock juror or jury simulations permit researchers to control factors (thereby increasing the precision of inquiry), they can also limit the external and ecological validity.

Methodological qualifications notwithstanding, this set of studies is not alone in casting suspicion on claims of an anti-prosecution CSI Effect. The ADA survey, while not offering experimental design or conclusions supported by algorithms, provides tremendous insight. Nineteen of twenty prosecutors detailed instances where CSI had impacted their cases. Yet, a review of the case files confirmed that there was no such impact, at least

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201. Because the CSI Effect is premised on CSI viewers becoming jurors and then employing CSI infected reasoning to their veridical decisions, and CSI viewers appear to be no different than non-viewers, there is no reason to believe that this would be any different at trial.

202. Hence, there is either no CSI Effect or no CSI Effect based on viewing profile.

203. Indeed, a multi-layered and complex process is necessary for a CSI Effect. Yet, a majority of research regarding cultivation theory and television's role in heuristic decision-making is premised on attitudinal formation rather than multi-level extrapolation of issue-specific content to broader applications, such as jury decision-making. See generally Vergeer et al., supra note 101.

204. The only way this would be possible is to control every aspect of a person's environment from the day she is born.

205. Future research should sample different audiences and consider other variables such as the motivations for viewing, prior justice system experiences, and the perceived reality of these shows to see if they have an impact on cultivation:

206. Vergeer et al., supra note 101, at 130.

207. Research has repeatedly shown that group verdicts correspond closely to individual pre-deliberation early preferences. Simon, supra note 61, at 550. Consequently, the individual deliberation should not alter the results here.

208. Here, jurors did not deliberate as a group, but individually. In all instances, mock jurors did not sit through real trial but read transcripts or truncated scenarios.

209. As previously noted, one prosecutor-to-prosecutor survey found that most prosecutors believe in an effect to their detriment.

210. See infra Part IV.D.1.
not a negative one. The disparity between the sincerity of their belief and reality suggests that the CSI Effect is a myth that exists in the minds of its acolytes.

V. THE BENEFIT OF CSI TO PROSECUTORS

If there is a CSI Effect, narrative theory and common sense suggest that it will benefit law enforcement. As noted, CSI features the fantastical world of forensics and smart police work. Even the forensic scientists that fear a CSI Effect admit that CSI's depictions are of the "near infallibility of forensic science." This story may cultivate the notion that forensic scientists and their methods are legitimate and reliable, thus bolstering the prosecution's case. In addition, jurors who are motivated to punish a wrongdoer can exaggerate the value of scientific evidence, perceiving it as overly conclusive. Indeed, scientific evidence is very seductive to jurors, and they tend to overvalue its probity and overestimate its infallibility.

Though television portrays police forensics as neutral, legitimate science, it is neither. Forensics is not premised on the objectivity and methodology of science, but on the subjective determinations of law-enforcement-trained technicians. Most crime labs are an arm of law enforcement, staffed by police in lab coats. In fact, the DNA identification technique was developed as a prosecutorial weapon to

211. CSI might produce a different effect where believing in a CSI Effect, even if incorrect, causes law enforcement to alter their presentation of cases or forensic investigatory protocols.

212. Weiss, supra note 19, at A13 (quoting Max Houck that the effect occurs "after watching a few episodes of CSI"). Houck is also the author of a Scientific American article warning that the CSI Effect may be impeding prosecutions and improperly diverting jurors. See Houck, supra note 1.

213. Tyler, supra note 15, at 1065 (CSI's plotlines converge with the psychological need for closure following crime).

214. Id. at 1084. Additionally, CSI's focus on bringing wrongdoers to justice is consistent with a strong psychological need to achieve closure. Id. at 1065. Where jurors are inclined to convict in the face of weak evidence, they may distort it, believing it to be stronger than it is. Id. at 1069.

215. Id. at 1068 (describing studies showing that people view evidence as more probative than it is); United States v. Addison, 498 F.2d 741, 744 (D.C. Cir. 1974) (warning that scientific evidence can "assume a posture of mystic infallibility in the eyes of a jury"); Edward Imwinkelreid, The Next Step After Daubert: Developing a Similarly Epistemological Approach to Ensuing the Reliability of Nonscientific Expert Testimony, 15 CARDOZO L. REV. 2271, 2286 (1994).


218. Id.

confirm the identity of a presumed suspect, and not as an investigatory tool, as portrayed on *CSI*. Indeed, the etymology of "forensics" is not the designation of a specialized field of science, such as a physician might specialize in oncology, but a label for the quasi-science practiced by police.

Forensic investigators have even fabricated evidence or lied under oath. In one particularly appalling example, West Virginia state serologist Fred Zain fabricated DNA results in hundreds of cases, including some which were death-penalty-eligible. The fabricated test results, along with Zain's own perjured testimony, led to the convictions of dozens of individuals throughout West Virginia and Texas. This law enforcement disposition diminishes the neutrality of science and may lead to biased conclusions.

Aside from potential procedural bias, the underlying science of forensics itself is questionable, as some of it barely qualifies as science at all. In fact, many of the "standard" techniques have either never been endorsed by the scientific community or they lack validation studies to support their premises. For example, the FBI only began investigating the reliability of fingerprint identification, the quintessential technique for criminal identification, in the 1990s. Moreover, contrary to popular perception, fingerprint identification does not match one complete fingerprint to another, but compares "points of similarity." Under current practice, if any range from eight to sixteen (of a fingerprint's thirty-five to fifty) points is similar, a fingerprint is declared a match.

223. *In re Investigation of the West Virginia State Police Crime Lab., Serology Div.*, 438 S.E.2d 501, 503 (1993); Roane, *supra* note 1 (showing in one instance, Zain contributed to the conviction of an innocent man who had been sentenced to a term of 203-335 years).
224. Roane, *supra* note 1, at 52.
225. DiFonzo, *supra* note 219, at 4-5 (noting that technicians working in police labs come to see themselves as "police in lab coats").
227. *Id.*
228. *Id.*
229. *See id.*
230. *Id.; see also* Simon A. Cole, *Grandfathering Evidence: Fingerprint Admissibility Rulings from Jennings to Llera Plaza and Back Again*, 41 AM. CRIM. L. REV. 1189, 1196 (2004) (explaining that such a match between latent and scanned prints is called an "absolute" or
Although such a match implies a conclusion as to identity, nobody has ever proved the validity of relying on such a small number of points of similarity to declare that no other finger in the world produced the print.\textsuperscript{231} According to scholars, the verifiability of fingerprint identification rests on the notion that "it is verifiable because [fingerprint technicians] use it."\textsuperscript{232} Despite this circular logic, the reliability of fingerprint identification goes unquestioned.\textsuperscript{233} Scholars, scientists, and courts have also begun questioning the accuracy of ballistics,\textsuperscript{234} hair analysis,\textsuperscript{235} and handwriting identification.\textsuperscript{236} For example, two years ago, the National Research Council of the National Academies released a study challenging the scientific validity of the FBI's "comparative bullet-lead-analysis" technique, which purports to match bullets to crimes by analyzing their lead content.\textsuperscript{237} As a result, an appellate court recently reversed a murder and robbery conviction based in part on its conclusion that the FBI crime lab was scientifically flawed.\textsuperscript{238}

Even where forensic tests qualify as legitimate "science," entertainment media perpetuates the misguided notion that forensics is immune from mistake.\textsuperscript{239} CSI features brilliant scientist-cops employing exacting methods and drawing conclusions that are never faulty—at least when it comes to the forensic evidence. Such a portrayal of absolute certainty might lead jurors to overestimate the accuracy of crime scene "positive" match).
evidence or to believe it to be more conclusive than it is.\textsuperscript{240}

These portrayals are inconsistent with the realities of forensic testing, its labs, and technicians. For instance, neither forensic technicians nor the crime labs in which they work need to be accredited or certified.\textsuperscript{241} Thurs, history "is littered with slapdash forensic analyses often performed by untrained, underpaid, overworked forensic technicians operating in crime labs whose workings reflect gross incompetence or rampant corruption."\textsuperscript{242} Typically, testing is not in a research lab at a major institution resembling the pristine set of \textit{CSI}.\textsuperscript{243} Poor testing conditions reduce the reliability of results. Unbeknownst to the average citizen,\textsuperscript{244} different technicians often have varying interpretations of DNA.\textsuperscript{245}

Sometimes, forensic technicians are sloppy, use unproven methods, manufacture data points, or ignore inconsistent results.\textsuperscript{246} For example, experts from one well-known laboratory, Lifecodes, confessed that when faced with DNA bandshifts that did not quite match, they used a previously not-yet-validated methodology to reconcile the difference and declare a match.\textsuperscript{247} There is also a surprising amount of cross-contamination, mislabeling, and mixing-up of DNA samples, switching the DNA amongst cases.\textsuperscript{248} One lab matched a slug with the wrong test gun,\textsuperscript{249} and another confused the DNA reference sample of a rape victim with that of the accused.\textsuperscript{250} In a particularly shocking known instance, the prosecution's


\textsuperscript{241} DiFonzo, \textit{supra} note 219, at 3–4. As of 2005, only 294, of more than 1,000, crime labs have passed accreditation with the American Society of Crime Laboratory Directors. \textit{Id.}

\textsuperscript{242} \textit{Id.} at 2.

\textsuperscript{243} DiFonzo, \textit{supra} note 219, at 8 (citing the Detroit Crime Lab where testing is conducted at a former elementary school building suffering from power surges, water leaks, and lack of storage space).

\textsuperscript{244} Thompson, \textit{supra} note 240, at 15 (noting that people believe DNA conclusions are infallible).

\textsuperscript{245} Roane, \textit{supra} note 1, at 53; see also Sheila Jasanoff, \textit{What Judges Should Know About the Sociology of Science}, 77 JUDICATURE 77, 78 (1993) (discussing how scientific claims are contingent on a variety of factors, so that results are never completely true).

\textsuperscript{246} See Jasanoff, \textit{supra} note 245, at 79.

\textsuperscript{247} \textit{Id.}

\textsuperscript{248} Thompson, \textit{supra} note 240, at 10–11.


\textsuperscript{250} Roane, \textit{supra} note 1, at 49. See Adam Liptak, \textit{Houston DNA Review Clears Convicted Rapist, and Ripples in Texas Could Be Vast}, N.Y. TIMES, Mar. 11, 2003, at A14 (stating that DNA evidence did not match suspect); see also DiFonzo, \textit{supra} note 228, at 6 (discussing a contamination rate of two percent in DNA testing).
forensic evidence "proved" that the probability of a coincidental match was 1 in 694,000 African-American males. In fact, subsequent testing by an independent private laboratory showed that the probability of a match exceeded 1 in 8 . . . .\textsuperscript{251} Even further, "the Crime Lab failed to present DNA evidence which should have excluded [the defendant] as one of the rapists."\textsuperscript{252} Yet, DNA's cloak of "science" can mislead jurors into either ignoring contradictory evidence or foreclosing consideration of corroborating evidence.\textsuperscript{253} "Once the laboratory inputs a conclusion into the criminal justice [system], it has effectively terminated whatever processes it has in place to detect errors."\textsuperscript{254} Accordingly, notwithstanding reasonable doubt, a jury may be more inclined to convict.\textsuperscript{255}

VI. CONCLUSION

The mock juror deliberation and ADA survey results do not offer any evidence that a CSI Effect is seducing jurors into legally unjustifiable acquittals, but that, like its namesake television show, is merely fiction. If anything, CSI's pro-police, pro-forensics story exalts forensics evidence, thereby bolstering it along with the prosecution's case. Consequently, the CSI Effect does not warrant criminal justice reforms or increased latitude for prosecutors.

What is labeled a CSI Effect may more accurately be described as a rationalization embraced by members of law enforcement who find themselves on the losing side of a prosecution. By attributing a loss to CSI's wrongful influence, a prosecutor can obtain an explanation yet maintain a belief that an acquittal was misguided. Although this cognitive rationalization is understandable, it should not be mistaken for empirical proof that the CSI Effect operates anywhere other than in the minds of those proposing it.

\textsuperscript{251} DiFonzo, supra note 219, at 5.
\textsuperscript{252} Id.
\textsuperscript{253} Id. at 2.
\textsuperscript{254} More Than Zero, supra note 233, at 995–96.
\textsuperscript{255} See Randolph N. Jonakait, Stories, Forensic Science, and Improved Verdicts, 13 Cardozo L. Rev. 343, 345 (1991) (discussing how jurors are more inclined to believe forensic evidence over confessions and alibis).