

The Hung Jury: Scholarly Consensus on the Value of the CSI Effect in the Future of American Justice

Luke Francis Georgette
Stanford University

Fiction is the medium through which cultures imagine their past, present, and future through new and unique lenses, reflecting our former identity and future hopes and fears. Fiction also influences our expectations for the present and our future directions; touch-panel computers, space exploration, and instantaneous wireless communication, once prophesied by science-fiction writers, are now commonplace. Naysayers may point to our lack of planetary colonization and flying cars, but these too linger in our imagination as technology continues to bring us closer to their realization.

While much of fiction is art, some fiction serves merely to entertain. Some fictional universes in television are distorted for the viewer's pleasure to tell a more intriguing story, while relying on the "suspension of disbelief." No disclaimer is given, however, that would enable viewers to recognize which components are verisimilar and which—to put it lightly—consider reality merely a jumping-off point. Likewise, no law or moral code obligates fiction to portray the true world. These licenses, however, mean little to viewers whose understandings, beliefs, and expectations are being subconsciously molded.

The American television serial drama, *C.S.I.: Crime Scene Investigation*, is one of such universes in which the rules of reality are bent in the name of entertainment and narrative. Since its inception in 2000, it has remained one of the most popular programs on American and international television, generating two spin-off series and inspiring several other forensic crime shows, therefore representing a true social phenomenon. Revolving around a Las Vegas police crime scene unit, the original show allegedly takes numerous liberties with the forensic science the characters employ to capture criminals. In the show, every case abounds with forensic evidence linking the killer to the crime with absolute certainty. When selected for jury duty, frequent viewers of such programming are alleged to "suffer" from what has been termed the *CSI effect*—a blanket term for multiple wide-ranging manifestations of social expectations that result from the show's portrayal of science and justice. Its varied effects, documented by a score of scholarly articles, have also been seized upon by the popular media and sensationalized.

The overarching pursuit of this paper is to use the CSI effect as a case study for how art and fiction can shift popular social perspectives on real science and technology, and how the professional world—i.e., the legal, scientific, television, and research communities—reacts to these new expectations. The origins of the CSI effect in anecdotal evidence made it a prime attraction for mainstream media outlets that sensationalize the phenomenon and, by extension, flaunt their own powers of persuasion. Only in the last five years have more scholarly publications started to examine this issue: primarily law journals such as the *Yale Law Journal* and the *American Bar Association Journal*. However, their studies have so far focused solely on (a) determining whether the CSI effect exists, or (b) establishing a typology of its myriad manifestations. Because it is difficult to replicate the psychological circumstances of an actual criminal trial—at which a real, visible person might be executed or imprisoned, one who may or may not have killed or raped a real human being—sociological and psychological studies can only do so much to prove or disprove the CSI effect using statistics. Additionally, all studies thus far treat jurors individually, rather than as a collective that must reach a joint decision—which is an entirely separate mechanism. Thus the CSI effect’s validity rests primarily on anecdotal testimony and precedent.

The researchers do not hesitate to take polarized stands on whether the CSI effect is a positive or negative addition to the justice system and America as a whole, and many eagerly posit suggestions for steps that might be taken to moderate the effect. However, as of this writing, no example in the literature has compared the arguments about whether the CSI effect is a positive or negative force.

The object of this paper is to add to the literature a comparison of the conclusions and opinions of prior research, in order to establish a scholarly consensus. This study asks the research question: *Is there a consensus within the research and judicial communities that considers the CSI effect to be a negative influence on the American justice system, and is there agreement on how to respond to its influence?*

The methodology used to establish the existence of such a consensus focused primarily on a survey of the literature regarding the CSI effect, which extends back only to 2004. Its findings were thus built upon the literature gathered from peer-reviewed law journals. The “research community” and “judicial community” established in the research question are inextricably linked. Researchers rely heavily on anecdotal evidence gathered from judicial actors, as well as on a handful of articles written by judges and attorneys. The research community’s value judgments were evident in the intentional or subtle declarations of their points of view in the articles.

For this paper, my primary assumption is that the hypothesis of the CSI effect in its commonly accepted manifestation has been shown to be true, and that we can now explore the question, “Where do we go from here?” After preliminary research, I hypothesized that most of the

literature regarding the value of the CSI effect would consider it a negative force, since the shows instill a false sense of familiarity with sophisticated forensic practices, resulting in possible miscarriages of justice.

My analysis of the literature revealed that my hypothesis was correct. The plurality of literature presented the CSI effect as a negative force that must be counteracted by judges, attorneys, the media, and television writers, and that specific crime scene investigation tactics need to be more realistically portrayed and explained both in the media and in remedial instructions to the jury. This result, for the first time in the current literature, presents a consensus on the CSI effect. However, a vocal minority strongly argued that the CSI effect is a positive influence. Their political and philosophical stance, rooted in the notion that the CSI effect increases the “authority and prestige of science,” extols the nation-founding American tenet of “reasonable doubt” and the advent of what its supporters call “the enlightened juror” (Ghoshray, 2007, p. 16). This thought process operates on a wider, more long-term scope than that evident in the reactionary opposition, despite this idealized juror’s admittedly exaggerated expectations.

As a tactic or protocol to accommodate or counteract the CSI effect, attorneys and judges have focused on *voir dire* (during which attorneys question potential jurors’ backgrounds at jury selection) and the judge’s instructions to the jury as appropriate vehicles through which to combat the CSI effect’s influence by drawing the attention of the attorneys and jurors to its existence.

Background

Cultivation Process

The primary sociological mechanism at work in the CSI effect is the “cultivation process,” a theory first developed by George Gerbner and Larry Gross (1976), who referred to television as “our chief instrument of enculturation and social control” (p. 23). Their work found that frequent television viewing causes an individual’s perceptions of real life to closely correlate to the depictions in television programming. This is termed a “social reality,” a shared national mainstream conception of reality and a common symbolic environment (Gerbner, Gross & Signorielli, 1986). Television is the primary cultivator of this shared social reality, since it serves as a ritualized and centralized storyteller that transcends race and socioeconomic class, pervading and homogenizing culture and society. When Gerbner, Gross, and Signorielli analyzed a week of television programming, broke down its universe into societal statistics, and presented questions to real people about real society, they found that heavier viewers believed real life to be much more like the television world than it was, regarding for instance the frequency of violent crime, the prevalence of minorities or blue-collar and middle-class Americans, and the prevalence of law enforcement officers (Gerbner et al., 1986).

This cultivation process is a perfect example of what drives the CSI effect and what Reeves and Nass (1996) termed the “media equation”: *media equal real life*. The CSI effect, if it exists, is not an accusation of ignorance or stupidity leveled at the American juror, who allegedly thinks he is a science expert after watching a season of a primetime drama. Rather, it is a legitimate concern in the wake of the findings of Gerbner and his co-authors—one that explores large-scale sociological processes and the malleable nature of the mind’s reality when subjected to the incessant influx of stimuli, televised or not. According to Nass, the cultivation by television is so difficult a process to study because of its gradual nature, a cultural pervasiveness that precludes any sort of control group, and its subconscious and indirect influences (Clifford Nass, personal communication, November 4, 2009). All of these issues apply to the study of the CSI effect, adding to the difficulty of accurately replicating the psychological circumstances of facing an actual defendant in the courtroom, rather than reading a mock trial transcript in a questionnaire.

Forensic Crime Television

The CBS serial drama *C.S.I.: Crime Scene Investigation* is at the heart of the controversy, but its subject matter is not new. The police procedural (born of earlier detective fiction such as the Sherlock Holmes stories) has existed since the 1940 publication of Lawrence Treat’s first criminologist novels (Liukkonen, 2008). Upon its debut in 1990, the American program *Law & Order*, cancelled just this year after 20 seasons, first shed some light on modern forensic practices. *C.S.I.*, however, is the first example of a television show that revolves exclusively around criminologists who piece together a forensic puzzle within its 60-minute running time. In each of its 10 seasons, it has ranked among the top 10 American programs, with five seasons in the top three (www.abcmedianet.com). Its wild popularity sparked two spin-off series: one set in Miami, the other in New York. It also inspired a number of similar forensic crime shows, e.g., *Bones* (2005) on Fox, and *NCIS* (2003) also on CBS (Catalani, 2006). In 2005, forensic crime shows accounted for nearly half the top 20 primetime programs in weekly American viewership (Maricopa County Attorney’s Office, 2005, p. 4).

A major source of debate regarding *CSI* is the accuracy of its depiction of forensic techniques used by modern crime scene investigators. The show depicts extensive photographing of crime scenes and elaborate chemical and ballistic tests, usually requiring only 10 seconds of montage. The magic of forensics inevitably delivers the killer’s identity and the laboratory is never backlogged with hundreds of cases or, when it is, the technician “makes an exception.” There is never a question of cost for the expensive procedures. A black light reveals every surface of every crime scene to be slathered with bodily fluids brimming with DNA. Incredible rendering software and immense imaginary databases enable

experts to instantly link a chip of paint or a piece of glass to a single car or building in an entire metropolitan area. While the real technologies are merely exaggerated in accuracy and time required, forensic scientist Thomas Mauriello, cited in Schweitzer & Saks (2007), estimated that 40% of the techniques demonstrated on the show are entirely imaginary (p. 358).

Richard Catalani (2006), one of the show's writers and technical advisers as a former crime scene investigator himself, defended the show's science. "*CSI* does not use 'sleights of evidentiary magic,'" Catalani asserted. "We use fundamental forensic techniques such as fingerprinting, DNA analysis, and bullet and cartridge comparison" (p. 77). He admitted that the show avoids "more realistic, tedious, labor-intensive searches," and *CSI: Miami* producer Elizabeth Devine explained that "no one wants to watch someone sitting at their desk taking notes" (Catalani, 2006, p. 77; Lovgren, 2004). Catalani claimed that *CSI*'s "legitimate modern analytical techniques" are in use by real-world forensic criminologists before they are added to the script. As for the 100%-solved rate of crimes depicted, Catalani understandably attributed it to artistic license to entertain: "We are a television show after all, and resolving crimes is the business of the show" (p. 77). Other forensic scientists have disagreed. It is this discrepancy, as well as the overlooking of "the immense amount of documentation done in the field," that accounts for the altered social reality in the minds of the jury (Lovgren, 2004).

The CSI Effect

The CSI effect is the collective term for a linked set of phenomena that are alleged to appear among (though are not limited to) American jurors who frequently view television programs about forensic crime solving. In the show and those similar to it, forensic evidence is abundant, absolute, and can always lead directly to the true culprit. It is these allegedly fantastical elements that develop an exaggerated social reality in jurors' minds—a reality that judicial actors and forensic scientists struggle to erase.

Although the "CSI effect" name can refer to any influence that such programming has on any stakeholder group, the effect is commonly understood to have two primary manifestations in the courtroom: pro-defense and pro-prosecution (Schweitzer & Saks, 2007, p. 357). Prosecutors claim the former, asserting that jurors now have excessive expectations of the ability of the prosecution to produce forensic evidence linking the defendant to the crime. This view asserts that jurors now acquit in cases in which the witness testimony and circumstantial evidence would have been sufficient for a conviction in the pre-*C.S.I.* era. In contrast, defense attorneys insist that jurors now consider all forensic evidence to be infallible, when in reality it is far from perfectly accurate. They claim that the slightest shred of corroborating forensic evidence now seals a conviction, when in earlier years juries were less likely to view such evidence as absolute.

Stakeholders

In an abstract way, every American above the age of majority is a stakeholder in the battle over the CSI effect. Anyone may be chosen for a criminal jury and be its instrument, just as anyone can be charged with a crime they did or did not commit. These defendants and criminals clearly have the most on the line. However, the most immediate stakeholders in the issue are the judicial actors—prosecutors, defense attorneys, judges, and expert witnesses such as actual forensic investigators. These actors represent the first group affected by any influence a CSI effect might have. Their tactics must be evaluated and, if necessary, altered in order to maintain the highest standard of justice. Some of the literature detailed potential recourses available to judicial actors to counter the CSI effect, some of which have already been put to use, including *voir dire* questioning and proposed jury instructions (Schweitzer & Saks, 2007, p. 364; Thomas, 2006, p. 3).

The CSI effect represents more than just “television taking over the world”; it is a microcosm of debates that rage in every corner of political theory. The concepts of “burden of proof,” “innocent until proven guilty,” and “reasonable doubt” are tenets upon which individual liberty in America is founded. These Constitutional standards envisioned by the Founding Fathers are evolving, just as notions of militia, revolt, and government have changed. The question of how to interpret these concepts in light of the CSI effect is no different than the furor over the Second Amendment right to bear arms. Quoted in Heinrick (2006), *C.S.I.* creator Anthony E. Zuicker claimed, “The CSI effect is, in my opinion, the most amazing thing that has ever come out of the series. For the first time in American History, you’re not allowed to fool the jury anymore” (p. 60).

Another prominent group of stakeholders consists, crucially, of scientists and researchers. Just as fiction influences social reality and expectations, scientific and technological research is driven to meet the new fiction-born expectations. Law firms are as much an economic force as any other industry, and advances in forensics will be pursued strongly if the CSI effect has truly disrupted the balance of power in the courtroom. In time, we may find that the alleged 40% of imaginary forensic techniques featured in *C.S.I.* have become reality.

The final group of stakeholders in the debate is the writers and producers of *C.S.I.* and its brethren. The argument over the appropriate societal response to the CSI effect calls into question the ethical responsibility of those in creative control of the popular media—and, by extension, all artists and entertainers. Several articles suggested that television itself holds the key to countering the CSI effect, but the existence of a moral obligation to disclaim or realistically portray anything would appear to be a breach of our fundamental creative freedoms (Maricopa County Attorney’s Office, 2005, p. 10).

Contextual Literature Review

This section will establish the context for the debate on the CSI effect by presenting its historical context in media versus the law and by illuminating the current methods of “proving” the validity of the effect.

Precedent

The current literature on the subject recognizes that the CSI effect is not a unique phenomenon. Brickell (2008) established precedent for the apparent phenomenon, citing the *Perry Mason* syndrome of the 1960s. According to attorneys for the prosecution and defense, this television program—“the American public’s first prolonged exposure to the dramatization of the courtroom”—caused jurors’ expectations of witness questioning to shift significantly (p. 17). Tyler (2006a) reminded the reader of 1989 research to determine whether jurors were frustrated by real court proceedings after having false expectations shifted by the program *The People’s Court* (p. 1055). Brickell (2008) also pointed to the “white coat syndrome” of the 1990s, in which jurors allegedly deferred automatically to the judgment of expert witnesses (p. 16). She cited studies that attempted to disprove the white coat syndrome, especially those of Neil Vidmar that mirrored the vigorous denial of the CSI effect, in order to suggest that both the white coat syndrome and the CSI effect are merely manifestations of a perpetual professional distrust of juries (p. 17). Her explanation, however, is questionable. She cited studies showing statistically that jury decisions during the study period agreed nearly all the time with both the judge’s interpretations and outside consulting firms’ decisions. This would suggest that the jury was uncorrupted by the media but for the fact that judges and firms, as members of the same society, may also have fallen under the spell of such a syndrome. This once again demonstrates the difficulty of finding appropriate controls when measuring the influences of a pervasive phenomenon such as television. While Brickell’s tenuous reasoning may have served to explain how the CSI effect may be as illusory as its predecessors, her research nonetheless contextualized the CSI effect by documenting the history of both the media and science’s influence on trial proceedings in the twentieth century.

Previous Study Designs

Following Brickell’s thesis, a large contingent of researchers and judicial actors authored studies suggesting that the CSI effect is either imaginary or, equally dangerous, “an accepted reality by virtue of its repeated invocation by the media” (Tyler, 2006a, p. 1083). Opposed are researchers whose findings insisted it is a valid trend and directly linked to the specific television programs. It has proven quite difficult, thus far, to establish statistically convincing proof of the CSI effect’s existence or non-existence. Beyond anecdotes, researchers have accrued only a handful of empirical data sets, and these can be separated into three distinct methods

of testing: surveying judicial actors, surveying the public, and analyzing acquittal rates over time. The rest of the body of literature draws its data from these investigations.

Surveying Judicial Actors. Watkins (2004) was the first to attempt to assign quantitative data to anecdotal blaming of *C.S.I.* by prosecutors for losing cases. Fifty-three state prosecutors, public defenders, and private defenders responded to Watkins's survey, which "explored whether they have noted changes in jurors' expectations based upon the current popularity of forensic crime dramas [and whether they have] made changes in their own pretrial and trial practices" (p. 59). The survey found that a significant percentage of surveyed attorneys (around 25%) had encountered jurors post-trial who had unrealistic expectations of forensics (p. 64). It also reported that around half of the surveyed attorneys regularly inquire of jurors their crime-drama viewing habits during *voir dire* (p. 68).

The other oft-cited survey of judicial actors is the Maricopa County Attorney's Office 2005 internal investigation into alleged CSI-effect encounters and the tactics its prosecutors were developing to counter it. In an extensive survey of the county's 102 attorneys—the majority of whom had tried cases before more than 10 juries—the report found that in 40% of cases the jurors had asked questions using *C.S.I.* jargon that had not been used by the attorneys or experts in the trial (Maricopa County Attorney's Office, 2005, p. 5). Also, "38% of prosecutors believed that they had at least one trial which resulted in either an acquittal or hung jury when forensic evidence was not available to corroborate testimony that should have been sufficient by itself to sustain a conviction" (p. 5).

Most recently, Robbers (2008) gathered survey data from a "nationally-representative random sample of trial counsel and judges" and found that 62% of defense attorneys and 69% of judges thought that jurors often have unrealistic expectations of forensic evidence, though she did not successfully correlate these statistics with television (p. 84). While these three studies provide the strongest evidence for the CSI effect's existence, it is no coincidence that their data spring from the opinions of attorneys, who have reason to blame television for their unexpected losses. However, these studies remain the clearest windows into the courtroom and the judicial process in the post-*C.S.I.* era.

Surveying Jury Pools. Three main studies have surveyed the viewing habits and hypothetical verdicts of the public, the national jury pool itself. Podlas (2006) tested the pro-defense CSI effect by presenting 306 university students with a survey of their forensic crime drama viewing habits, a fictional trial transcript, and a verdict sheet with checked-off "reasons" (p. 456). Her study found no correlation between increased viewing and higher acquittal rates, although, strangely, the plot of her fictional trial "presented no critical issues pertaining to or that could be ascertained with reference to forensics" (Podlas, 2006, pp. 454, 461). Schweitzer and Saks (2007) surveyed 48 university students and found that heavy viewers considered low-tech forensics significantly less

convincing than did light viewers or non-viewers (pp. 361-362). This result countered the typical pro-prosecution CSI effect interpretation by showing that viewers do not consider all scientific evidence infallible and absolute. However, it also demonstrated that forensic crime shows do influence jury expectations and, thereby, verdicts.

Shelton, Kim, and Barak (2008) conducted the most extensive study of its kind, surveying 1,027 citizens in the Ann Arbor, Michigan area who were summoned for real-life jury duty and examining their “demographic information, television viewing habits, their expectations that the prosecutor would produce scientific evidence[,] and whether they would demand scientific evidence as a condition of a guilty verdict” (p. 332). The survey found not only heavy expectations for scientific evidence across all cases, but also specific forms of forensic evidence depending on the crime—for instance, DNA in rape cases (72.6%) and ballistics in gun crimes (77.0%) (p. 349). While all of these surveys focus on subjects potentially influenced by forensic programming (the prospective jurors themselves), the use of surveys lacks the true psychological circumstances of a trial and the actual manner of presentation by witnesses, experts, and attorneys. Surveying individuals also fails to take into account the group dynamics of a jury.

The Maricopa County investigation claimed to present evidence from real jurors in real cases, stating that prosecutors drew their opinions from direct conferences with jurors post-trial. Sixty-four percent of the prosecutors surveyed reported regularly speaking with jurors after the verdict to gauge which types of evidence were most probative, lending them “a better understanding of the CSI effect on juries” (Maricopa County Attorney’s Office, 2005, p. 5). While extensively surveying jurors’ real-life decision processes in actual cases would be enormously insightful, this indirect testimony from the prosecutors cannot be considered unbiased.

Statistical Analysis. The final method of determining the validity of the CSI effect is statistical analysis of nationwide acquittal rates in the years before and after the advent of the forensic crime drama. The most comprehensive example of such an analysis that focused specifically on the CSI effect is contained within Cole & Dioso-Villa (2009). While their study was largely based on an earlier 2007 work, the pair gathered felony acquittal rates in every jurisdiction in 11 states from at least 2000 to 2008 as one component of their study (p. 1359). They found that, within each jurisdiction, the acquittal rates had fluctuated insignificantly over a period encompassing both pre- and post-*C.S.I.* eras. While this method offers the widest scale, the data are so far removed from the individual juror’s thought process that it is impossible to determine the influence that television is having. However, it does imply that the CSI effect is either exaggerated or is already being counterbalanced by other sociological effects.

Methodology

The methodology of this study involved performing a survey of the narrow body of current scholarly literature regarding the CSI effect. While the mainstream media referenced the CSI effect on 242 occasions from 2005-2008, only a score of published scholarly research papers have critically examined the alleged phenomenon (Cole & Dioso-Villa, 2009, p. 1339). However, even that statistic is exaggerated, in view of the multiple articles by the same researchers, and the web of inter-citation among the researchers, regularly quoting one another's work.

Since studies of the content of the mainstream media's depictions of the CSI effect—accused of being a “media panic”—have already been attempted, the next step was to analyze the content of “objective” research papers, ideally untouched by the sensationalism of the media (Cole & Dioso-Villa, 2007, p. 464). One common thread in every scholarly article is a primary focus on establishing or disproving the existence of the CSI effect. Once this argument is made, pro or con, a unilateral value judgment regarding such an effect is then put forth without considering alternative viewpoints.

Two levels of value judgments are at work in these papers. The first is a determination whether the CSI effect (a) exists, (b) does not exist, or (c) “exists” as a trend attributable to a phenomenon other than the television programs. Whether the CSI effect is considered a media panic, or legitimate false expectations influenced by a television show, or a misnomer for a different influence, the second level of value judgment determines whether the CSI effect is (1) a negative influence that must be counteracted, or (2) a positive or inevitable influence that should either be encouraged or considered part of the ever-changing landscape of the American courtroom.

Because the goal is to establish a consensus of scholarly perspectives, the fact that one author claims the CSI effect exists as commonly understood while another asserts alternative causes or manifestations does not dictate that the two cannot both consider it a negative influence and agree on specific tactics to counter it.

Analysis

After examining the arguments, evidence, and conclusions of 18 scholarly articles, one can further sort their rhetoric into five categories. Two articles claim the CSI effect is completely fictitious. Five assert that the alleged CSI effect is a misnomer for another phenomenon that is an inevitable manifestation of a historic trend. Two of the publications agree that the CSI effect exists in an alternate form, but that it is nevertheless a negative trend that should be countered. Only two articles assert that the CSI effect exists in its commonly understood form and is a positive direction for court mechanics. Finally, seven publications, the largest group, argue that the CSI effect is a legitimate threat to judicial integrity and is often the cause of miscarriage of justice.

Categories

Fictitious. Two articles—Hansen (2005) and Podlas (2006)—accused the CSI effect of being entirely fictitious. Hansen cited James E. Starrs, professor of law and forensic science at George Washington University, who points to the conviction in the much-publicized Laci Petersen trial despite a complete dearth of forensic evidence as an indicator of the CSI effect's falsity (p. 53). Hansen himself criticized those who subscribe to the CSI effect for adding to the gimmickry of the American courtroom—for example, “defense lawyers [...] attempt[ing] to stack the jury with fans of crime-scene shows” (p. 53).

More explicitly, Podlas (2006) referred to the CSI effect throughout as a “media myth” (p. 461). Her mock trial survey found no pro-defense CSI effect, but instead a potential pro-prosecution effect that she did not investigate further (p. 461). She concluded that “CSI horror stories of justice denied may drive legal ‘reforms’ when no reforms are needed [...] it should be exposed for what it is: nothing more than fiction” (p. 465).

While both authors asserted that the shows themselves have no influence on a jury's interpretation of evidence, they recognized that the mere perception of the effect is unnecessarily altering courtroom procedures and the composition of juries, damaging the integrity of the justice system.

Inevitable. Five publications—Brickell (2008), Tyler (2006a), Tyler (2006b), Shelton, Kim, & Barak (2006), and Shelton (2008)—placed the CSI effect within its historical context as yet another manifestation of various false but common impressions of media influence, ascribing its true source to inevitable social mechanics of change. As described in the contextual literature review, the “Perry Mason syndrome,” *The People's Court*, and “white coat syndrome” are held up as straw men. Their lack of empirical support parallels that of the CSI effect (Brickell, 2008, pp. 16-17; Tyler, 2006a, p. 1055). Brickell argued that all of these syndromes are manifestations of a contentious and “adversarial” justice system that generates a systematic professional distrust of juries consisting of laypeople. She asserted that this distrust has existed since the jury system's conceptual dawn in England (p. 15).

Tyler (2006b) challenged the credibility of all evidence supporting the CSI effect, calling the effect “probably most important as an example of the way that a broad consensus about the existence of a legally relevant ‘fact’ can emerge out of unsystematic and untested anecdotal observations” (p. 73). He also posited that, if a juror is considered capable of disregarding testimony at the judge's request, he should also be considered capable of setting aside any preconceptions when instructed (Tyler, 2006a, p. 1060). Tyler (2006a) also argued for four alternative explanations for the purportedly increasing acquittal rate: increased sympathy for defendants, increased medicalization of the defendant's excuses, false expectations from judges and attorneys, and increased jury skepticism of legal authorities (pp. 1077, 1084). However, Tyler failed to

suggest that, like the CSI effect, these very explanations are plausibly derived from mass media.

Shelton, Kim, and Barak (2006) argued that, though there is no distinction between viewers and non-viewers of *C.S.I.*-esque programming, an increased expectation exists in the general population for forensic evidence that surpasses current practices (p. 362). They called this phenomenon the *tech effect*: “the result of much broader cultural influences related to modern technological advances” (p. 362). However, they denied the complaints of attorneys and took the side of the intentionally fluid language of the law and the Constitutionally afforded right to a jury of peers who decide what amounts to reasonable doubt, reflecting in an appropriate manner the changes to the national culture (p. 365). “To adapt, law enforcement officials will have to commit additional resources to obtaining scientific evidence in many more situations. In the meantime, the law must become better at explaining to jurors why such evidence is not forthcoming” (Shelton, Kim, & Barak, 2006, p. 368).

This group of researchers acknowledged recent apparent shifts in criminal trial dynamics, but did not pass value judgment on (nor articulate means of encouraging or counteracting) such trends. They instead chose to label them new manifestations of the basic and regular evolution of society.

Misinterpreted yet Dangerous. The third viewpoint comprises those authors who stated that the term “CSI effect” is a misnomer, though the phenomenon is still an undesirable force. Cole and Dioso-Villa (2007, 2009) subscribed to this view. In the latter publication, their survey suggested that the “rising authority and prestige of science in modern society,” and not any CSI effect, is responsible for increased juror expectations of and trust in forensic evidence (Cole & Dioso-Villa, 2009, p. 1372). They drew a distinction between the “burden of proof” of the law and that of science: the philosophical line between moral and mathematical certainty. They argued that science falsely behaves as if it bears such mathematical certainty, rather than being admittedly an enterprise of probabilities (Cole & Dioso-Villa, 2007, p. 466). “This perhaps speaks to law’s more fundamental anxiety about science encroaching on law’s role as a truth-making institution. Perhaps this, then, is the real CSI effect” (p. 469). Cole and Dioso-Villa were here addressing the dangers of the pro-prosecution CSI effect, in which all forensic evidence is considered infallible and absolute. They spoke to a broader issue of science’s self-misrepresentation.

Valid and Positive. The fourth perspective, posited by Catalani (2006) and Ghoshray (2007), holds that the CSI effect both exists in its commonly understood form *and* is a mechanism of positive progress in the American justice system. Catalani, who is admittedly predisposed to his opinion as a show writer and adviser, argued that, “most importantly, *CSI* returns the focus to exonerating the innocent. [...] If it’s such a crime to reinvigorate the cliché that defendants are innocent until proven guilty, as

a CSI writer, I'll happily take the charge" (Catalani, 2006, p. 78). He acknowledged that many forensic tests are not done because of time or budget constraints, but believes the risk of false imprisonment of an innocent citizen should require the prosecution to explain to the jury why all scientific options were not exhausted (p. 77).

Ghoshray (2007) considered the CSI effect to be a manner of jury empowerment. "The CSI Effect can act as a watchman against prosecutorial excesses characterized by highly subjective, overtly suspect circumstantial evidence" (p. 561). He asserted his research demonstrates that the CSI effect affords juries greater comprehension of forensic evidence, without diminishing the probative value of circumstantial evidence or making the threshold of reasonable doubt unattainable (p. 562).

Valid and Negative. The fifth and final standpoint was defended by a plurality (seven) of scholarly articles. Watkins (2004), Maricopa County Attorney's Office (2005), Thomas (2006), Heinrick (2006), Schweitzer and Saks (2007), Robbers (2008), and Lawson (2009) all unabashedly accused the CSI effect of being a detriment to the American pursuit of justice. The range of publication dates, as well as the number of unique authors, augments the subjective strength of this scholarly paradigm. Watkins (2004) avoided making major value judgments but concluded: "A miseducated [*sic*] citizenry, weaned on media images, may serve to undermine the court process when called upon to serve as jurors" (p. 85).

The Maricopa County Attorney's Office (2005) concluded that the CSI effect was a prominent anti-prosecutorial presence in their trials (p. 10). A majority of the attorneys surveyed asserted that their difficult experience with the CSI effect had even forced them into more lenient plea arrangements in anticipation of the lack of forensic evidence (p. 8). In this scenario, the CSI effect extends its influence beyond the courtroom, infringing on the behavior of attorneys and, potentially, even investigators before the trial.

Other supporters of this perspective include Thomas (2006), who cited the Maricopa County Attorney's Office study, budget constraints, and specific case examples that "make prosecutors worried that justice is not being done" (p. 71). Heinrick (2006) agreed with Wendy Murphy of the National District Attorney's Association, who voiced the NDAA members' frustration: "When CSI trumps common sense, then you have a systemic problem. The [NDAA] is deeply concerned about the effect of CSI" (p. 61). Schweitzer and Saks (2007), who found *C.S.I.* viewers regularly expected better science in court, yet did not find a significant discrepancy in conviction/acquittal rates, nonetheless considered such beliefs "distorted" (p. 364). Robbers (2008) focused heavily on the social reality construction of Gerbner and Gross, believing that the programs had created a significant social reality gap and that "jurors have no tools to assess the credibility of testing," thus allowing such a schism to persist (p. 84).

Thus, the literature shows that the position most critical of the CSI effect narrowly holds the plurality, ahead of the researchers who consider the effect to be an inevitable step in the evolution of American justice. When one weighs the number of those who decry its negative influence in all its forms (even imaginary) against those that consider it positive or at least natural and inevitable, the “negative” side holds an 11-to-7 margin over the “positive” side.

Countermeasures

Those researchers who were alarmed by the CSI threat did not hesitate to suggest vectors for mitigating its influence and were unanimous in insisting that countermeasures must be taken to preserve judicial integrity. “Better preparation by judges and attorneys to counter such a trend is warranted” (Watkins, 2004, p. 85). Lawson (2009) stated that the CSI effect must be counteracted “to ensure fairness within criminal jury trials. Vigilance toward protecting the constitutional fairness of the American criminal justice system can never be too excessive—the stakes are too high and false outcomes are too devastating” (p.173). All of these suggested counter-measures involve re-educating the public, and by extension the jury, via multiple media both within and outside the courtroom. All of the anti-CSI effect articles suggested a multi-pronged, awareness-based approach to “correct” the CSI effect by (1) better preparing the judicial actors who encounter it, (2) addressing the concern during *voir dire* and jury instructions, (3) changing tactics during witness testimony and arguments, and (4) re-educating the public via mass media news and fictional programming.

Some researchers considered outside-the-courtroom mechanisms to be the most efficient means of repairing the schism between reality and fiction. Heinrick (2006) offered the hope that, since the shows are reinvigorating the public’s interest in science, the technology will soon catch up to the fiction of the show, resulting in “scientifically educated jurors, rather than the current ‘television educated’ jurors who understand the technology is there, but do not understand how or when it’s used” (p. 61). The Maricopa County Attorney’s Office (2005) suggested that the shows in question could open with disclaimers assuring the viewer that the scientific processes are fictional and exaggerated, or that they depict plots demonstrating the negative effects of television on the courtroom, illuminating the CSI effect within *C.S.I.* (pp. 10-11). “Television producers should take notice of their potential to unduly influence citizens by causing them to have unrealistic expectations of the criminal justice system” (p. 11).

Within the courtroom, the Maricopa County Attorney’s Office claimed its prosecutors “will soon, by office policy, be directed formally to fully address the techniques used by defense attorneys who use the CSI Effect to sway juries” (p. 10). The Maricopa County attorneys claimed to have actively acknowledged its presence during *voir dire* and proposed

jury instructions for years (p. 9). While 83% of Maricopa County prosecutors believed judges should discuss the CSI effect in jury instructions, only 19% had seen judges mention it to juries in any form (p. 9-10). Attorneys were also changing tactics during trial. The Maricopa County report, as well as Schweitzer and Saks (2007), argued that an appropriate measure to control the effect is to improve the testimony of forensic experts by clearly explaining the investigation and by disseminating accurate forensic portrayals to the public (Maricopa County Attorney's Office, 2005, p. 10; Schweitzer & Saks, 2007, p. 364).

The Ohio State Bar Association (2010) Jury Instructions Committee in May 2010 added a new "Warning Against Outside Influence" item to its standard jury instructions that addresses "improperly conceived idea[s]" about the scientific aspects of criminal investigations. However, the State Bar of Michigan (2010) in February 2010 rejected multiple proposed instructions regarding the CSI effect specifically, as well as other outside influences, choosing instead to "leave the issue to the judges and/or attorneys during voir dire" (p. 1).

There has been debate about whether in-court cautioning about the CSI effect itself biases the jury. In 2009, *Goff v. State* was appealed in part on the grounds that the prosecutor's referencing of the CSI effect during *voir dire* and closing arguments was prejudicial to the defendant. The Mississippi Supreme Court found that the lower court did not err in allowing these statements to be made. Similarly, in *Commonwealth v. Seng* (2010), the judge's admonishments and instructions to the jury were one of the bases of the defendant's appeal. The trial judge declared, after *C.S.I.* was mentioned in testimony, that the show did not accurately reflect real life. The judge also, within his jury instructions, said that the show was science fiction and that the jury would be wasting time if it were to base deliberation on why any particular evidence or testimony was not given. The defendant appealed, arguing that "this instruction went beyond admonishing the jury against improper speculation and impermissibly precluded the jury from considering the inadequacies in the law enforcement investigation" (*Commonwealth v. Seng*, 2010). The highest court in Massachusetts found that the judge acted properly in immediately responding during testimony, but that it had been "undesirable" to include the caution in his jury instructions. However, the jury instructions were not found to be prejudicial to the defendant, and the conviction was upheld.

The above examples demonstrate that counter-measures to the CSI effect have already been discussed and implemented in statewide and national institutions. The organizations that consider the CSI effect a genuine threat to the integrity of American justice will continue to pursue universal awareness of actual forensic practices in order to reduce these perceived miscarriages of justice.

Conclusion

The use of countermeasures leaves no doubt that *C.S.I.* and similar programming has had a widespread effect on the criminal justice system. However, this paper's intent was to establish a scholarly consensus regarding the value of the CSI effect in its most commonly understood manifestations. As portrayed in the body of current literature, the research and judicial communities' opinions of the value of the CSI effect are as deeply divided and as fervently debated as is the dispute over its very existence.

To some extent, my hypothesis was correct, in that a majority of the literature (11 vs. 7 articles) found the CSI effect to be a negative, improper influence on the mechanics of a criminal jury trial. While this position has the largest following, its leading margin is far from comfortable. An authorship nearly as large attributes the CSI effect to be merely a new aspect of the continual influence of popular culture on the professional world, suggesting that, in a democracy, social reality is the highest word of law. With so many conflicting yet, at times, overlapping theories within such a miniscule body of literature, it is difficult to consider any of the categorical viewpoints to be a "consensus."

However, the countermeasures suggested by the anti-CSI effect researchers and those already in initial phases of adoption were fairly unanimously, if broadly, favored. The proposed multi-pronged assault utilizes mass media, taking advantage of the same principles of social construction of reality that are alleged to have created the problem. Through a combination of publicly addressing the effect within and outside the courtroom and by re-educating the public about actual forensic procedures in entertainment and in trial testimony, an anti-CSI effect coalition hopes to reverse its influence and create a more enlightened jury. However, the question exists whether further calling the CSI effect to the public's attention can do much good, especially if it is eventually proven illusory. The archives of popular news media, from international syndicates to local circulations, already include multiple articles that have discussed the CSI effect as an all-but-absolute fact. The coverage has continued to the extent that some data now suggest a compensatory effect in jurors, currently called the "CSI effect effect," where jurors attempt to offset their own self-perceived bias.

The minute and excessively inter-referential population of scholarly research on the subject remained this study's most oppressive limitation. The perpetual difficulties both in methodologically analyzing a cultural phenomenon and in replicating the true circumstances of the courtroom environment (even in studies conducted by judges and lawyers) have left the research community without a single sociological examination of the topic that does not possess considerable weaknesses. In order to truly prove or disprove the CSI effect, a survey must analyze the opinions of actual juries hearing actual cases—rather than simulations of each—formed as a collective unit that must reach unanimity, instead of

individually conceived. Such a study would need to transcend regional boundaries in order to provide an accurate correlation between viewership and juror expectations. It is conceivable that only government agencies would be able to conduct a study on such a large scale with such intimate access to the evidential details of real cases and to the jurors immediately after the verdicts. However, there is surely enough at stake that state governments would undertake the cost of such an investigation.

Additionally, the debate over the value judgment of the CSI effect was found to be rooted in such resolute philosophical and political ideals that any analytical declaration of one viewpoint as the “winner” would no doubt be inextricably subjective. As objectively as possible, however, it would appear that those who strongly recommend countering the CSI effect are considering the situation on a bureaucratic, professional level and on a much more immediate timescale, while those who support (or at least accept) its influence rest their arguments on Constitutional thought and long-term social evolution.

As a result, it is absolutely critical that judicial actors, researchers, television writers, policymakers, and indeed every American of age of majority or who has ever turned on a television—all of the stakeholders in this issue—recognize the Constitutional nature of the debate. The CSI effect may indeed be responsible for returning captured thieves, rapists, and murderers to the streets. But the voices of such assertions fail to appreciate that, while it is “American” to bring criminals to justice, there is nothing more un-American than to wrongfully convict an innocent citizen. Cornerstones of individual freedom such as “the right to a jury of one’s peers,” “reasonable doubt,” and “innocent until proven guilty” are the reason the newborn United States had the audacity to call itself “the land of the free.” Thus, anything that the jury requests in order to be sure of a defendant’s guilt should be treated with absolute respect, not with the general disdain that the research and judicial communities now hold for them. It is no secret that *C.S.I.* and its siblings are fantasies meant to entertain and feature technology that is not available in real life for budgetary or developmental reasons. But in the realm of real-life forensics, technology will change. The tenets of American justice will not.

However, since precedent has readily established fiction as a long-term influencer of public perception, and since the proponents and detractors of the CSI effect wield arguments that engage on disparate critical and moral planes, the battle will likely be a long one, and is unlikely to be fully resolved in our lifetimes. The understanding of the two sides is a microcosm for political-philosophical debate as a whole. For now, however, as was required of the prosecutors of yesterday, the very validity of the CSI effect must rest mostly upon mere circumstantial evidence and witness testimony from the judicial actors who encounter it. Until unequivocal scientific evidence can prove its existence beyond a reasonable doubt, the correct societal response to the CSI effect remains murky.

References

- Brickell, W. (2008). Is it the CSI effect or do we just distrust juries? *Criminal Justice*, 23(2), 10-17. Retrieved from http://heinonline.org/HOL/Page?handle=hein.journals/cjust23&div=19&collection=abajournals&set_as_cursor=0&men_tab=srchresults&erms=csi%20effect&type=matchall
- Catalani, R. (2006). A CSI writer on the CSI effect. *Yale Law Journal Pocket Part*, 115. 76-78. Retrieved from <http://www.yalelawjournal.org/images/pdfs/34.pdf>
- Cole, S. A., & Dioso-Villa, R. (2007). CSI and its effects: Media, juries, and the burden of proof. *New England Law Review*, 41, 435-469. Retrieved from <http://www.lexisnexus.com/us/lnacademic/>
- Cole, S. A., & Dioso-Villa, R. (2009). Investigating the “CSI effect” effect: Media and litigation crisis in criminal law. *Stanford Law Review*, 61, 1335-1373. Retrieved from <http://www.lexisnexus.com/us/lnacademic/>
- Commonwealth v. Vuthy Seng, 456 Mass. 490 (2010).
- Gerbner, G., & Gross, L. (1976). Living with television: The violence profile. *Journal of Communication*, 26(2), 172-199. Retrieved from <http://psycnet.apa.org/index.cfm?fa=search.displayRecord&uid=1979-03132-001>
- Gerbner, G., Morgan, M., & Signorielli, N. (1986). Living with television: The dynamics of the cultivation process. In J. Bryant & D. Zillman (Eds.), *Perspectives on media effects*, (17-40). Hilldale, NJ: Lawrence Erlbaum Associates.
- Ghoshray, S. (2007). Untangling the CSI effect in criminal jurisprudence: Circumstantial evidence, reasonable doubt, and jury manipulation. *New England Law Review*, 41, 533-562. Retrieved from <http://www.lexisnexus.com/us/lnacademic/>
- Goff v. State, 14 So.3d 625 (Miss. 2009).
- Hansen, M. (2005). The uncertain science of evidence. *American Bar Association Journal*, 91(7), 48-53. Retrieved from http://heinonline.org/HOL/Page?handle=hein.journals/abaj91&div=154&collection=abajournals&set_as_cursor=2&men_tab=srchresults&erms=csi%20effect&type=matchall
- Heinrick, J. (2006). Everyone’s an expert: The CSI effect’s negative impact on juries. *The Triple Helix*, 3(1), 59-61. Retrieved from <http://www.cspo.org/documents/csieffectheinrick.pdf>
- Lawson, T. F. (2009). Before the verdict and beyond the verdict: The CSI infection within modern criminal jury trials. *Loyola University Chicago Law Journal*, 41, 119-173. Retrieved from <http://www.lexisnexus.com/us/lnacademic/>
- Liukkonen, P. (2008). Lawrence Treat (1903-1998). *Books and Writers (Finland)*. Retrieved from <http://www.kirjasto.sci.fi/treat.htm>
- Lovgren, S. (2004, September 23). “CSI Effect” is mixed blessing for real crime labs. *National Geographic News*. Retrieved from

http://news.nationalgeographic.com/news/2004/09/0923_040923_csi.html

- Maricopa County Attorney's Office. (2005, June 30). *CSI: Maricopa County: The CSI effect and its real-life impact on justice*. Retrieved from http://www.ce9.uscourts.gov/jc2008/references/csi/CSI_Effect_report.pdf
- Ohio State Bar Association. (2010). *OSBA Jury Instructions*. Retrieved from <http://www.lawwriter.net/NLLXML/getcode.asp?statecd=OH&codesec=UndesignatedJURY%20ADMONITION&sessionyr=2009&Title=i&version=1&datatype=OHOSBAJI&cvfilename=ohohosbajicv2009TopicIUnprefixedC.htm&docname=JURY+ADMONITION&noheader=0&nojumpmsg=0&userid=PRODSG&Interface=CM>
- Podlas, K. (2006). "The CSI Effect": Exposing the Media Myth. *Fordham Intellectual Property Media and Entertainment Law Journal*, 16, 429-465. Retrieved from <http://iplj.net/blog/wp-content/uploads/2009/09/Article-THE-CSI-EFFECT-EXPOSING-THE-MEDIA-MYTH.pdf>
- Reeves, B., & Nass, C. (1996). *The media equation: How people treat television, computers, and new media like real people and places*. Stanford, CA: CSLI Publications.
- Robbers, Monica L. P. (2008). Blinded by science: The social construction of reality in forensic television shows and its effect on criminal jury trials. *Criminal Justice Policy Review*, 19, 84-102. doi:10.1177/0887403407305982
- Schweitzer, N. J., & Saks, M. J. (2007). The CSI effect: Popular fiction about forensic science affects the public's expectations about real forensic science. *Jurimetrics*, 47, 357-364. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=967706
- Shelton, D. E., Kim, Y. S., & Barak, G. (2006). A study of juror expectations and demands concerning scientific evidence: Does the "CSI effect" exist? *Vanderbilt Journal of Entertainment and Technology Law*, 9, 331-368. Retrieved from <http://law.vanderbilt.edu/publications/journal-entertainment-technology-law/archive/download.aspx?id=1732>
- Shelton, D. E. (2008). The "CSI Effect": Does it really exist? *National Institute of Justice Journal*, 259. Retrieved from <http://wayback.archive-it.org/924/20080510090036/http://www.ojp.usdoj.gov/nij/journals/259/csi-effect.htm>
- State Bar of Michigan. (2010, February 20). *Criminal jury instructions committee*. Retrieved from http://www.michbar.org/generalinfo/committee_pdfs/JI_agenda_1.pdf
- Thomas, A. P. (2006). The CSI effect: Fact or fiction. *Yale Law Journal Pocket Part*, 115, 70-72. Retrieved from <http://www.thepocketpart.org/images/pdfs/32.pdf>

- Tyler, T. R. (2006a). Viewing CSI and the threshold of guilt: Managing truth and justice in reality and fiction. *Yale Law Journal*, 115, 1050-1085. Retrieved from <http://www.thepocketpart.org/images/pdfs/32.pdf>
- Tyler, T. R. (2006b). Is the CSI effect good science? *Yale Law Journal Pocket Part*, 115, 73-75. Retrieved from <http://www.thepocketpart.org/images/pdfs/32.pdf>
- Watkins, M. J. (2004, August 3). *Forensics in the media: Have attorneys reacted to the growing popularity of forensic crime dramas?*. Retrieved from <http://www.coolings.net/education/papers/Capstone-Electronic.pdf>