The CSI Effect*

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Abstract

The CSI Effect posits that exposure to television programs that portray forensic science (e.g.,

CSI: Crime Scene Investigation) can change the way jurors evaluate forensic evidence. The most

commonly researched hypothesis under the CSI Effect suggests that shows like CSI depict an

unrealistically high standard of forensic science and thus unreasonably inflate the expectations of

jurors. Jurors are thus more likely to vote to acquit, and prosecutors face higher burden of proof.

We review (1) the theory behind the CSI Effect, (2) the perception of the effect among legal

actors, (3) the academic treatment of the effect, and (4) how courts have dealt with the effect. We

demonstrate that while legal actors do see the CSI Effect as a serious issue, there is virtually no

empirical evidence suggesting it is a real phenomenon. Moreover, many of the remedies

employed by courts may do no more than introduce bias into juror decision making or even

trigger the CSI Effect when it would not normally occur (i.e., the self-fulfilling prophesy). We

end with suggestions for the proper treatment of the CSI Effect in courts, and directions for

future scholarly work.

Key Words

CSI Effect; Evidence; Forensic evidence; Media; Juries; Psychology and law

1. Introduction

Does familiarity with a fictional television program change the way in which jurors interpret evidence and thus impact their ultimate decision in criminal proceedings? This is the fundamental question posed by the *CSI Effect*, an oft-discussed but poorly understood phenomenon.

The term CSI Effect is regularly used as an umbrella for several hypotheses concerning the rising popularity of televisions shows about forensic investigators (i.e., forensic dramas) and the impact this trend has had on the public perception of forensic science. Most notably, some researchers and pundits suggest forensic dramas perpetuate an impossibly high standard of forensic science, resulting in acquittals of guilty parties.

Following a brief overview of the CSI Effect, the present article discusses the widespread acceptance of the effect among practitioners despite a lack of reliable empirical evidence. Next, this article discusses the way in which courts have dealt with this largely hypothetical phenomenon. The approach used by the Maryland courts is highlighted for its balanced and science-based approach to dealing with the potentiality of a CSI Effect. This article concludes with directions for future research and a caution that while the actual CSI Effect may be not-existent, widespread belief in it may create a self-fulfilling prophesy.

1.1 Crime Scene Investigation – The Show

Crime Scene Investigation (CSI) is the archetypical forensic drama and is responsible for popularizing the genre. The show follows the titular investigators as they use forensic techniques, such as DNA testing and blood pattern analysis, to solve crimes. A typical CSI plot revolves around the commission of a crime and subsequent struggle to solve it. The crime scene

investigators almost inevitably save the day by employing a forensic technique to crack the case

– the correct suspect is caught, and all is right with the world.

CSI is remarkably popular. The original CSI series, which was set in Las Vegas, regularly drew over 20 million viewers and was the second-most watched drama in the 2004-2005 season (Podlas, 2006, p. 432). CSI spawned three spinoffs: *CSI: NY, CSI: Miami*, and *CSI: Cyber*. It also inspired an entire genre of forensic dramas including *Bones, Cold Case, Dexter*, and *Numb3rs*, all of which have experienced mainstream success. Unless otherwise stated, this review will use the term "CSI" to mean both the CSI program itself, and other forensic dramas.

1.2 What is the CSI Effect?

Cole and Dioso-Villa (2011) trace the term "CSI Effect" to a 2002 Time magazine article, which suggested CSI had the potential to alter the lay perception of how forensic science is done. Since the Time magazine piece, hundreds of articles on the topic have appeared in the mainstream press. These articles typically lend credence to the effect by providing anecdotal accounts from legal actors suggesting that the CSI Effect played a role in a particular case.

In terms of media coverage, the high water mark for the CSI Effect may have been the highly publicized murder trial of actor Robert Blake. Blake, who famously portrayed a police detective on the television show *Baretta*, was eventually acquitted. During the trial, the prosecution did not provide several forms of forensic evidence, including fingerprints and gunshot residue. Media outlets, including USA Today, linked Blake's acquittal to the CSI Effect (Cole & Dioso-Villa, 2011, p. 24).

Support for the CSI Effect has been far more modest within academic circles. Although experts agree that the view of forensic science portrayed on CSI is inaccurate (e.g., see Smith,

Stinson & Patry, 2011), there is little evidence the fiction actually affects jurors. Researchers have attempted to document the CSI Effect through several methods, such as exposing participants to trial transcripts, asking them about their attitudes towards evidence in the abstract, and analysis of historic acquittal rates. These studies nearly uniformly fail to find any evidence that viewing CSI programming impacts the decisions jurors make.

Prior to reviewing the empirical research on the CSI Effect, it is useful to define exactly what the term encompasses because it has taken on multiple meanings. Indeed, Cole and Dioso-Villa (2007) reviewed the CSI Effect literature and identified six different predictions encompassed by the term CSI Effect.

The Strong Prosecutor's Effect

The most widely researched and discussed incarnation of the CSI effect is known as the strong prosecutor's effect, a moniker coined by Cole and Dioso-Villa (2007). This intuitively pleasing version of the effect posits that regular CSI viewers come to believe that forensic science is commonplace, precise and performed with a high degree of technological sophistication. Therefore, when these individuals eventually become jurors, they possess unreasonably high expectations about the type of forensic evidence that will be proffered by the prosecution. Proponents of the strong prosecutor's effect suggest CSI increases the evidentiary onus on the prosecution, producing false acquittals. The vast majority of empirical research has focused the strong effect. This research is reviewed below in the section three.

The Weak Prosecutor's Effect

According to the weak prosecutor's effect, prosecutors (1) believe that jurors expect sophisticated forensic science (i.e., the strong prosecutor's effect) and (2) engage in a host of

remedial measures as a result of this expectation. For instance, prosecutors may attempt to exclude jurors who watch a lot of CSI.

Studies focused on prosecutors' perception of the CSI Effect appears to confirm the first component of the weak effect, that prosecutors believe the problem is real. For example, 50% of district attorneys surveyed in New York believed that the CSI Effect existed in the courtroom (Podlas, 2006a, p. 108). Moreover, in a survey of 102 prosecutors in Maricopa, Arizona conducted by the Maricopa County District Attorney, 74% of prosecutors stated they "had tried a case in which jurors expected scientific evidence" (Maeder & Corbett, 2015, p. 87).

The second component of the weak effect is that prosecutors engage in tactics to minimize the potential impact of CSI on juries. Such remedial measures will be reviewed in detail below. Suffice it to say that prosecutors regularly address the CSI Effect in court.

The Defendant's Effect (i.e., Reverse CSI Effect)

Tyler (2006) proposed a reverse CSI Effect, which was later relabeled the defendant's effect by Cole and Dioso-Villa (2007; 2011). Contrary to the strong prosecutor's effect, under the defendant's effect the prosecution purportedly benefits from jury's exposure to CSI programming.

Defense lawyers regularly comment on the defendant's effect, identifying a number of benefits conferred upon the prosecution as a result of the *CSI* Effect. To start, defense lawyers argue that the positive light cast on forensic science by CSI leads jurors to interpret forensic evidence in a highly persuasive light (Cole & Dioso-Villa, 2007). Furthermore, some defense lawyers worry that compared to the prosecution's forensic scientists, scientists put on the stand for the defendant will be viewed as "marginal members of their profession" or "nothing more

than a 'hired gun'" (Mann, 2005-2006, p. 235). Finally, defense lawyers worry that the juror's perception of the trial process itself has changed because of the show. Crime television shows focus on the investigation, and therefore jurors may come to view the trial as "a mere formality" to an investigation that was dispositive of guilt (Tyler, 2006, p. 1073).

The Police Chief's Version

Cole and Dioso-Villa (2007) also identified a potential effect of CSI programming on law enforcement. This effect, known as the police chief's version, claims that criminals learn to evade detection by watching shows like CSI. While the police chief's version does not pose a legal issue in itself, it can have a significant impact on the criminal justice system (Cole & Dioso-Villa, 2007).

The Producer's Effect and the Educator's Effect

The final two effects enunciated by Cole and Dioso-Villa (2007) concern the influence of CSI programming on the practice of forensic science. The producer's effect claims that CSI has had an educational effect by popularizing forensic science. Similarly the educator's effect suggests that CSI informs young people as they decide to enter into careers in forensic science. Both the Producer's and Educator's effect draw on CSI's vision of forensic science as sexy and cool.

Despite this favorable perspective, many forensic scientists have in fact reacted negatively to CSI in part because of increasing pressure and workload. This workload is especially strenuous given funding issues facing forensic scientists in many jurisdictions (Cooley, 2007). Unlike forensic crime labs on television, which appear to have limitless funding and resources at their disposal, many forensic scientists are relatively poorly paid. Further, many publicly funded crime labs lack the resources to upgrade their facilities to a level approaching

that which is depicted on television (Cooley, 2007). Forensic scientists also worry that prosecutors will make unreasonable requests of crime labs by requesting costly and time-consuming tests (Cooley, 2007). It therefore stands to reason that many CSI enthusiasts who enter the profession may ultimately be disappointed.

Forensic scientists complain of another consequence of CSI: the media's representation of forensic science misrepresents their actual practice (Cooley, 2007). Forensic crime dramas portray the field as infallible when in reality some forensic tests are prone to error (Cooley, 2007). In a survey of 15 forensic experts conducted by Smith, Stinson and Patry (2011, p. 6), the general accuracy of CSI was rated low (2.5 on a 7 point scale).

Summary

So what is the CSI Effect? Much of the above review reflects definitional issues rather than a deep theoretical divide. In other words, CSI as a cultural phenomenon has almost certainly had a diverse impact, affecting the expectations placed on practitioners and inspiring youths to consider a career in crime scene investigation. The thornier issue concerns the prosecutor's and defendant's effect, which do make diverging predictions on the show's influence on a jury. Prior to reviewing the evidence on the prosecutor's and defendant's effect, a discussion of the psychological mechanisms underlying them is useful.

2. The Psychology of the CSI Effect

2.1 The CSI Schema

The CSI Effect can be understood as a *schema*. Psychologists define schemas as "mental structures that people use to organize their knowledge around themes or topics and that influence the information people notice, think about and remember" (Aronson, Wilson & Akert, 2002, p. 59). Schemas direct cognition and influence judgement and decision making. For example,

individuals are more likely attend to and remember schema consistent information (Fiske, 1993). Psychologists consider schemas an essential part of everyday cognition, as individuals rely on them to quickly organize and make sense of new situations. On the other hand, there are situations when schemas are inaccurate or socially undesirable (e.g., racial profiling).

As applied to the CSI effect, schemas have been used to explain both the strong prosecutor's effect and the defendant's effect (Tyler, 2006). With regard to the strong prosecutor's effect, CSI may have created a schema in which forensic evidence is both ubiquitous in criminal investigations and is obtained in a highly sophisticated manner. Jurors who bring this schema into the courtroom will therefore be more likely to disregard unsophisticated and non-scientific evidence, which they find is inconsistent with their CSI schema. If the prosecution relies on non-scientific evidence, the jurors will therefore be biased towards acquitting.

Alternatively, under the defendant's effect, CSI may have created a schema in which forensic investigators almost always save the day by discovering the key piece of evidence in the nick of time. As a result, jurors may give more weight to the testimony of the prosecution's forensic experts because it is schema consistent. Jurors correspondingly ignore the weaknesses in the expert's narrative. This process results in a bias towards conviction.

Within the CSI Effect academic literature, Tyler (2006) draws on schemas suggesting that the CSI Effect may operate similarly to the way in which pretrial publicity affects jurors' decision making. Tyler relies on a study by Kovera (2002) in which she found pretrial publicity influences the standard of proof participants demanded prior to convicting an alleged rapist.

Kovera's study manipulated pretrial publicity by exposing participants to a video that was either sympathetic to alleged rapists (i.e., pro-defense) or victims. Perhaps not surprisingly, participants

viewing the pro-defense video required more inculpatory evidence to convict than those viewing the pro-victim video. In other words, participants adopted a standard of proof that fit their schema.

Psychological research therefore suggests both the strong prosecutor's effect and defendant's effect are plausible (Tyler, 2006). Moreover, they may operate in competition with one another in some situations. Jurors may give less weight to the state's evidence when it is fails to meet the extremely high CSI standard (i.e., the strong prosecutor's effect). On the other hand, jurors may overvalue the testimony of forensic investigators the state calls as witnesses (i.e., the defendant's effect). Within the same trial, CSI-influenced jurors may be critical of components of the state's case that where unsupported by forensic evidence. But at the same time CSI-influenced jurors may give greater credence to the state's forensic experts on parts of the case where forensic evidence was gathered and provided to the jury.

Alternatively, either the strong prosecutor's effect or the defendant's effect may predominate. For example, in cases when there is no forensic evidence available to the prosecution and it does not call a forensic expert, the prosecution may not benefit from the defendant's effect and be prejudiced by the prosecutor's effect. On the other hand, if the prosecution does have forensic evidence available, jurors may accord it greater weight than is proper, thus creating the defendant's effect.

Although psychological science suggests forms of the CSI Effect are plausible, that does not mean CSI influences the jurors in a meaningful way. Indeed, several psychological phenomena can be demonstrated in a laboratory where a single variable can be manipulated.

These effects are not always reproducible in messier naturalistic environments (Aronson & Carlsmith, 1968). Section 3 below details studies that have examined the CSI Effect, and largely

finds CSI exerts no impact on juries. Prior to reviewing the empirical research, however, the following section reviews a related psychological phenomenon known as the self-fulfilling prophesy, which suggests CSI may impact jurors simply because prosecutors believe it does.

2.2 The Self-Fulfilling Prophesy and the Weak Prosecutor's Effect

Research suggests that many prosecutors believe the CSI Effect is a real problem and take preventative steps to address it (i.e., the weak prosecutor's effect). On the other hand, research on samples of jury eligible individuals has generally failed to find that their decisions are impacted by viewing CSI (see below). These conditions (i.e., belief in a non-existent effect) engage what psychologists call a sell-fulfilling prophesy. A self-fulfilling prophesy can occur when individuals (1) expect a group to behave a certain way; (2) exert influence over that group; and, (3) cause that other group to behave in a way consistent with that expectation (Aronson et al, 2002, p. 67).

Rosenthal and Jacobson (1968) performed the classic demonstration of the self-fulfilling prophesy. They informed grade school teachers that some of their students' test results indicated they were likely to blossom into the top students later that year. This prediction was borne out as that group showed higher IQ gains than the other students. The twist was that the blossoming group was randomly selected. The mere expectation that certain students would improve caused teachers to act differently to those students, including being warmer and more attentive to them and giving them more feedback. It is important to note that these behaviors were not conscious or deliberate, and to the contrary, the teachers believed they actually spent more time with the students that were not identified by the initial test.

Prosecutors' perception of CSI Effect creates a situation that is ripe for a self-fulfilling prophesy. Research demonstrates that prosecutors widely believe that jurors are contaminated by the CSI. Further, prosecutors have a great deal of influence over jurors. As a result, prosecutors may then cause the very effect that they are concerned about. In other words, the weak prosecutor's effect may cause the strong prosecutor's effect (see also Cole & Dioso-Villa, 2009, p. 1370 for a discussion of the potential self-fulfilling nature of the CSI Effect).

There are several ways in which prosecutorial behavior may bring about the CSI Effect, three of which are surveyed here. First, in spending valuable time and resources justifying a lack of forensic evidence and presenting inconclusive evidence, prosecutors are not doing what is arguably more important – supporting their case with the facts they do have at their disposal.

Second, it is increasingly common for prosecutors to explicitly draw a connection to CSI at several points during the trial (Kinsey, 2012), ostensibly to remind jurors that that they should not use CSI as their standard for evidence. Schemas, however, must be *accessible* to exert an influence. Accessibility is "the extent to which schemas and concepts are at the forefront of the mind and are therefore likely to be used when we are making judgments about the social world." (Aronson et al, 2002, p. 63). While it may be argued that CSI is a chronically accessible schema, it is likely strengthened by what psychologists call *priming* (Chartrand & Bargh, 1996). Priming is simply the process by which recent experience causes a schema to be more accessible and thus more likely to influence behavior. Research shows that the majority of jurors are not regular viewers of CSI (e.g., just 22.7% in Shelton, Kim, & Barak, 2006, p. 345) and thus CSI would likely not be a chronically accessible schema. But by reminding and informing jurors of CSI, prosecutors may be priming the concept and thus bringing about the very effect they seek to avoid.

Finally, if prosecutors believe their position is prejudiced due to a lack of forensic evidence, they may subconsciously behave with less confidence and decisiveness, an effect known in psychology as stereotype threat. Stereotype threat is defined as behaving in a way that substantiates a negative stereotype (Mrazek et al, 2011). It is caused by several mechanisms, such as being distracted and overly monitoring one's own performance. As applied to the CSI Effect, prosecutors concerned about overcoming the CSI Effect may perform worse, thus generating the effect they are seeking to avoid.

2.3 Summary

Against the backdrop of established psychological theories, the strong prosecutor's effect is plausible. This is, however, no guarantee the effect is demonstrable either in a laboratory or in a courtroom. On the other hand, the mere fact that many prosecutors expect an uphill battle due to some influence of CSI programming may cause them to do things that eventually bias jurors against their case. Prior to describing the ways in which CSI is fought in the courtroom, the following section reviews empirical research that has attempted to measure the strong prosecutor's effect. Any reference to the CSI Effect in the following sections should be taken to mean the strong prosecutor's effect, unless otherwise distinguished.

3. Empirical Evidence for the Strong Prosecutor's Effect and Defendant's Effect

While there is no question many legal actors believe the strong prosecutor's effect is real, research has largely failed to demonstrate the effect itself. In other words, to date, there is scant evidence supporting the CSI Effect's central hypothesis – that CSI viewership impacts the way in which juries decide cases. The following review details the empirical research that has been conducted on the Strong Prosecutor's Effect across multiple methods.

3.1 Transcript Studies

Several researchers have studied the CSI Effect with a methodology involving participants reading trial transcripts or vignettes describing a crime. The experimenters then ask the participants to decide whether they would acquit or convict the fictional defendant based on the information presented. Transcript studies therefore offer the chance to measure the impact of CSI viewership on the way in which participants evaluate evidence in a trial context. This method offers a more ecologically valid method of studying the CSI Effect than the questionnaire method, which involves participants forecasting their reaction to an abstract scenario. Still, it suffers from a host of limitations, which are discussed below.

Podlas (2006) performed one of the first empirical tests of the CSI Effect. In her study, 306 university students first recorded their TV viewing habits and then read a vignette. The vignette recounted a rape allegation in which the only evidence was the testimony of the complainant and the accused. Podlas reasoned that in such a he-said, she-said credibility battle the burden of proof could not be met and thus the absence of forensic evidence was immaterial. Therefore, if CSI-viewing participants reported that they based their acquittal on a lack of forensic evidence, then this would constitute evidence for a CSI effect.

Podlas' study failed to support the existence of any CSI Effect. In particular, Podlas found that frequent CSI viewers were no more or less likely to acquit the accused due to a lack of forensic evidence. Additional research with the same design studying non-students was consistent with the above findings (Podlas, 2006a).

Podlas' methodology is problematic. For instance, the study relied on participants accurately reporting the basis for their decision (among those suggested by the researcher). A

wealth of social psychological research demonstrates that individuals are inaccurate at reporting the reasons for their decisions (Nisbett & Wilson, 1977). Moreover, the actual sample of interest – participants choosing a not guilty verdict for a lack of forensic evidence – only consisted of 25 participants. This sample is very small and thus the study was likely underpowered to find a small to medium effect (Cohen, 1992, p. 158). The overall failure to demonstrate the CSI Effect, as reviewed below, makes it nearly certain that if the CSI Effect exists, it is a small effect.

Schweitzer and Saks (2007) also employed a trial transcript design, but in their trial one piece of forensic evidence pointed towards the defendant being guilty. A sample of 48 jury-eligible university students read a transcript of a criminal trial in which the prosecution's only forensic evidence was a microscopic analysis of hair linking the defendant to the crime scene. Afterwards, participants reported their CSI viewing habits. The authors tendered a non-directional hypothesis. They predicted that CSI viewers might be more skeptical of the hair analysis because of their high expectations (i.e., the strong prosecutor's effect). Alternatively, they predicted that CSI viewers would give more credence to the hair analysis because of their high view of forensic evidence (i.e., the defendant's effect).

Schweitzer and Saks found no statistically significant impact of CSI viewing on the participants' ultimate decision. CSI viewers were, however, numerically but not signficantly more likely to acquit (i.e., the strong prosecutor's effect). CSI viewers did rate the hair evidence as less believable, a statistically significant difference as compared to non-viewers.

The results from Schweitzer and Saks' study suggest that CSI viewing can affect a juror's attitude towards forensic evidence. The study did not, however, indicate that these attitudes ultimately impact the juror's decision. This divergence could be due to a host of factors. For example, while CSI viewers may have been more critical of the forensic evidence, they may

have been able to correct for this bias when making the decision to acquit or convict.

Alternatively, the study may have been underpowered to find the more distal decision to acquit or convict effect. Schweitzer and Saks noted that "preliminary analyses" suggested 48 participants provided sufficient power to detect the CSI Effect. This is claim is unverifiable because authors do not posit an effect size, which is an essential component to a power analysis (Cohen, 1992). Finally, it is possible the believability effect was simply a false positive.

Maeder and Corbett (2015) recently performed a study in which participants (undergraduates at a Canadian university) read a transcript of a trial in which the prosecution primarily relied on DNA evidence. As predictive variables, they measured CSI-viewing frequency and the degree to which participants felt CSI represents an accurate portrayal of forensic science. The primary dependent measure was a compound score ("continuous verdict") created by multiplying the verdict assigned by the participant (1 for guilty, -1 for not guilty) by the participant's confidence in that verdict (1-10, with 10 being most confident). Therefore, in Maeder and Corbett's study -10 represents extreme confidence in a not guilty decision and 10 represents extreme confidence in a guilty decision.

Maeder and Corbett (2015) found no overall effect of either CSI viewership or perceived realism of CSI on their verdict measure. Further, CSI viewership and perceived realism were statistically unrelated, suggesting habitual viewers were no more likely than others to believe the shows were realistic.

While Maeder and Corbett (2015) found no direct effect of CSI viewership on decision making, they reported a series of structural equation models that may provide some insight into the CSI effect. One analysis suggested that participants who felt CSI programming was realistic were more likely to rely on DNA evidence when making their ultimate decision. A further

analysis demonstrated that reliance on DNA evidence was associated with a higher score on the continuous verdict measure (i.e., increased confidence in a guilty verdict). The authors therefore posited an indirect effect whereby perceived CSI realism increased reliance on DNA evidence, which in turn resulted in an increased likelihood of a guilty verdict. In other words, it may not be CSI viewership, *per se*, that impacts a juror's decision making. Rather, familiarity with CSI and believing it's realistic may be required to change a juror's vote.

Note, however, that the continuous verdict measure (and the authors' failure to report independent confidence and verdict scores) presents an interpretational challenge. It is unclear if the effect is driven by verdict or confidence, which are theoretically independent constructs.

Overall, Maeder and Corbett's research builds on previous studies, suggesting that while a general CSI effect may not exist, such a conclusion does not tell the whole story. In other words, the frequency of one's CSI viewership may be less important than the realism one attributes to such programming. The indirect effects presented by Maeder and Corbett suggest that viewers who believe the program to be accurate may rely more on forensic evidence when asked to serve on a jury, thus impacting their decisions.

3.2 Questionnaire Studies

As compared to transcript studies, questionnaire studies require much less time to perform because participants need not read about a trial but simply answer questions about their CSI viewership and attitudes towards forensic evidence. As a result, questionnaire studies often include hundreds of participants and do not suffer from the same power issues detailed above. On the other hand, questionnaire studies are less ecologically valid, as real life jurors are not simply asked whether they would convict or acquit if there is DNA evidence linking the

defendant to the crime. Rather, forensic evidence is one component of the greater trial context.

Still, questionnaire studies represent a useful way to gather a lot of data about attitudes towards evidence.

Shelton, Kim and Barak (2006; 2009) studied a sample of 1,027 jury eligible individuals actually called for jury duty in Michigan. Participants were first asked about their television watching habits (including CSI) and then asked about their expectations for various types of evidence (e.g., circumstantial, eye-witness, scientific) in various types of trials (e.g., breaking and entering, murder, rape). They were finally asked how likely they would be to vote to convict for various crimes without scientific evidence (i.e., the strong prosecutor's effect).

With regard to expectations about evidence, CSI watchers generally had higher expectations for all kinds of evidence (i.e., both eyewitness and scientific). The precise pattern of results was incoherent. For instance, CSI watchers expected DNA evidence to a greater extent than did non-watchers in physical assault cases, but not rape and murder cases.

Shelton and colleagues also compared the responses of CSI and non-CSI watchers when asked if they would convict on various crimes in the absence of scientific evidence. Here, there was no apparent CSI Effect. The authors found no statistically significant differences between CSI and non-CSI viewers in their propensity to convict in the absence of scientific evidence. In fact, there was only one statistically significant effect and that was that CSI watchers were more likely to convict in rape cases with no DNA evidence. To summarize, Shelton and colleagues found no support for the strong prosecutor's effect.

Kim, Barak and Shelton (2009) subsequently reanalyzed the above data with a structural equation modeling approach, finding that CSI viewing can influence juror decision making when

it raises expectations about evidence. More specifically, this analysis revealed an indirect effect in which CSI viewership raised expectations about scientific evidence, which in turn resulted in decreased convictions when the participants were told to imagine only circumstantial evidence (and no scientific evidence) was presented. In other words, CSI viewing increased expectations about evidence, which decreased conviction in the absence of scientific evidence. The same pattern did not hold when participants were told only eyewitness testimony, but not scientific evidence, was presented.

Brewer and Ley (2010) performed a similar study large scale, but abstract study, administering a phone survey to 908 residents of the Milwaukee area. While their research focused on DNA evidence, several of their items are relevant to the CSI Effect. In particular, Brewer and Lay asked their participants the extent to which they: (1) had a clear understanding of DNA; (2) believed DNA evidence to be reliable; (3) would be influenced, if serving as a juror, by the presence of DNA evidence; and, (4) would be influenced, if serving as a juror, by the absence of DNA evidence.

Brewer and Ley found that time spent watching real and fictional portrayals of criminal investigations positively predicted (1) and (2) above, but was not statistically significantly related to (3) and (4). This survey, while once again hypothetical and abstract, suggests that those who view CSI regularly come to believe forensic science is more reliable. CSI-watchers, however, did not differ from non-watchers in how they expected they would interpret forensic evidence if serving as a juror.

Lieberman and colleagues (2008) studied the impact of CSI viewing on beliefs about evidence, but did not measure how such beliefs might impact the propensity to convict. They asked a sample of 383 undergraduates to rate the accuracy and persuasiveness of several types of

forensic evidence. In addition, participants were asked about their exposure towards CSI programming. The researchers found no relationship between exposure to CSI programming and beliefs about the accuracy and persuasiveness of forensic evidence.

A telephone survey by Baskin and Sommers (2010) represents an outlier – it actually did find support for the strong prosecutor's effect. Participants in this phone survey reported the number of hours per week they spent viewing television shows with "crime and justice themes." They also reported the likelihood they would convict in a criminal rape and murder trial without the benefit of scientific evidence. Participants who watched three or more hours of crime television a week were less likely to convict with respect to both a hypothetical murder and rape trial without scientific evidence.

3.3 Longitudinal Acquittal Rate

In addition to the vignette and survey research described above, other researchers have attempted to find support for the CSI Effect by examining archival acquittal rate data spanning the time before and after CSI programming gained popularity. A trend indicating that acquittals were more common after the debut and rise of CSI would support the strong prosecutor's effect.

Cole and Dioso-Villa have performed multiple examinations of longitudinal acquittal rates (2007; 2011). Their most exhaustive analysis (2011) included acquittal rate data from felony jury trials in 11 U.S. states. Cole and Dioso-Villa's data demonstrates a slight rise in acquittal rates from 2001-2002. This pattern could be interpreted as support for the CSI Effect because the original CSI program began in 2000. The authors explain, however, that there are several alternate accounts for such a finding. For instance, acquittal rates were rising pre-CSI. Further,

the trend Cole and Dioso-Villa noted has not been present throughout the popularity of CSI programming.

It is difficult to draw firm conclusions from archival acquittal data because of the sheer number of discrete events and broader cultural changes that occur over time. Even if CSI programming did exert an influence on acquittal rates, it would likely have to be quite impactful to be apparent despite other influences on acquittals. Therefore, archival acquittal data is better suited to confirm other investigatory methods, rather than provide independent evidence for the CSI Effect. Finally, it is worth noting that a more precise method, and one that does not seem to appear in the literature, would be to measure the relationship between CSI viewership numbers (e.g., Nielsen ratings) and acquittal rates, as a more sensitive measure.

3.4 Summary

The above review finds extremely limited support for any CSI Effect. Across multiple empirical methods, only one study found direct evidence supporting any CSI Effect: the strong prosecutor's effect (Baskin & Sommers, 2010).

The outlier (Baskin & Sommers, 2010) should be viewed with caution. This study, like the other questionnaire studies, is quite abstract – participants were asked to imagine a vague scenario (e.g., an assault) without any of the details and circumstances that would likely be persuasive in a more naturalistic forum. In such a fact-starved scenario, the presence or absence of scientific evidence was likely more salient that it typically would be, thus potentially inflating these researchers' findings. Recall that the more realistic transcript studies failed to support any CSI Effect.

Moreover, the Baskin and Sommers study (2010) may have been excessively face valid. Instead of asking participants to imagine a scenario in which there was no forensic evidence, they explicitly asked participants how they would respond if there was no scientific evidence. This method clearly directed participants to the absence, perhaps biasing the study in favor of finding the CSI Effect. Regardless, given the mixed results and unrealistic nature of these questionnaire studies, it is difficult to draw a strong conclusion.

Limitations in the Existing CSI Effect Research

Several of the above studies reviewed were constrained by their methodologies and did not conform to the best practices in psychological science (Chin, 2014). For instance, it is largely agreed that question order can have a strong effect on empirical research (McFarland, 1981). Indeed, simply asking about race prior to administering a standardized test to African Americans can significantly impair performance (Steele & Aaronson, 1995). By asking detailed questions about CSI programming prior to probing for the CSI Effect, many of the above studies may have biased their results by priming the CSI schema, or simply suggesting to participants that they should use CSI as a reference point.

Two of the studies were vulnerable to question order effects (Shelton et al, 2006; Podlas 2006). However, neither study found a direct effect of CSI viewership on juror decision making. It is perhaps telling that these studies, which were likely biased towards finding an effect, did not.

Finally, as mentioned above, two of the transcript studies were almost certainly underpowered (e.g., see Podlas, 2006; Schweitzer & Saks, 2007). In other words, these studies did not include enough participants to find a statistically significant effect if such an effect did

exist. Because the trial traanscript method avoids several of the limitations inherent to pure questionnaire research, it is unfortunate that the existing studies were underpowered.

In total, the empirical research on the CSI Effect is generally of low quality and does not support the existence of the CSI Effect. In order to clarify the current understanding of the CSI Effect, a trial transcript study with larger sample size that asks about CSI viewership *after* measuring the main variables of interest would be very useful.

Proximate Effects

While the majority of studies have not supported a general effect of CSI viewership on conviction or acquittal, research has uncovered two more proximate effects. First, those who believe CSI is realistic may place more weight on forensic evidence and thus be more likely to convict when forensic evidence is present (Maeder & Corbett, 2015). Second, CSI may raise expectations about evidence among some jurors, and those jurors appear to be less likely to convict in the absence of forensic evidence (Kim, Barack, & Shelton, 2009). Note, however, that the latter finding may have been driven by a question order effect, as mentioned above.

If it is the case that the CSI Effect is simply too small to examine among the myriad factors that influence a juror's decision, these more proximate effects on realism and expectations may represent a useful avenue to explore. Researchers should attempt to replicate these effects. In general, confidence in empirical findings rests on replication of those findings (Chin, 2014, p. 231). This is especially important in the present context due to the methodological issues identified above.

4. The CSI Effect in the Courtroom

As reviewed above, the empirical research on the CSI Effect is largely inconclusive. This position contrasts with the perception among legal actors, who appear convinced the CSI Effect has a significant effect on jurors. This tension comes to a head in courtrooms, where prosecutors attempt to assuage the (perceived) strong prosecutor's effect, defense attorneys seek to take advantage of it, and judges establish rules aimed at finding a balance. The following sections review with the various ways in which the CSI Effect is dealt with in the courtroom. Throughout the cases surveyed below, judges comment on the CSI Effect, lending insight into their perception of the effect.

4.1 Anti-CSI Effect Instructions

Recognizing that the CSI Effect may pose a problem for prosecutors (despite the lack of evidence for the phenomenon) in meeting their burden of proof (i.e., the strong prosecutor's problem), some courts (e.g., *Evans v. State*, 2007; *Atkins v. State*, 2010; *Stabbe v. State*, 2011; *State v. Collins*, 2011; *US v. Saldarriaga*, 2000) have adopted anti-CSI Effect instructions. These instructions remind jurors that the prosecution's case does not necessarily require forensic evidence.

For context, a full example of these instructions reads:

During this trial you have heard of witnesses and may hear arguments of counsel that the State did not utilize a specific investigative technique or scientific test. However, I instruct you that there is no legal requirement that the state utilize any specific investigative technique or scientific test to prove this case. Your responsibility as jurors is to determine whether the State has proven based solely on the evidence presented the defendant's guilt beyond a reasonable doubt. (*Atkins v State*, 2011, p. 982)

In short, anti-CSI Effect instructions inform the jury that the prosecution need not lead forensic evidence. Instead, the controlling concern is whether or not the jury is convinced, beyond a reasonable doubt, of the defendant's guilt. The prosecution sometimes requests these instructions when gathering forensic evidence was infeasible, or when the defendant suggests that a certain forensic technique should have been performed. On the other hand, criminal defendants regularly challenge anti-CSI Effect instructions, arguing these instructions unconstitutionally relieve the prosecution of its burden of establishing guilt beyond a reasonable doubt.

The Maryland Court of Appeal has frequently wrestled with the issue of anti-CSI Effect instructions and its treatment of the issue is especially instructive – *Evans v. State*, 2007; *Atkins v. State*, 2010, and; *Stabbe v. State*, 2011 form Maryland's CSI trilogy. Over time this court has substantially narrowed the situations in which it permits anti-CSI Effect instructions. The tightening of this doctrine is, in part, due to the lack of empirical support for the CSI effect. These cases are briefly reviewed below.

Evans (2007), the first of the trilogy, did not engage in any critical analysis of the CSI Effect, and appeared to establish a permissive standard regarding use of anti-CSI Effect instructions. In *Evans*, the defendant was accused of illegally selling heroin to an undercover police officer, even though the officer failed to record the conversation. Anti-CSI effect instructions similar to the above were given to the jury. The defendant appealed on the grounds that the instructions relieved the state of proving each element of the crime beyond a reasonable doubt because they implied that the state not lead evidence of any scientific test or technique. The court dismissed the appeal, stating that the key factor in the use of anti-CSI Effect

instructions is that they are clear that the standard is still guilt beyond a reasonable doubt. On the facts of *Evans*, there was no reason to believe the jurors were unclear about the burden of proof.

The second of the trilogy, *Atkins* (2010), contains language skeptical of the CSI Effect. The decision focused the misbehavior of the defense in suggesting the state was required to use certain forensic techniques. Justice Harrell, writing in concurrence in *Atkins*, distanced anti-CSI Effect instructions from the CSI Effect itself. He suggested that the real issue in anti-CSI Effect instruction cases is not expectations created from modern television, but rather the defense's undue insinuation that law enforcement's failure to perform a specific technique bears on the state's burden of proof. By focusing on the defense's misbehaviour, the range of situations in which anti-CSI Effect instructions are permissible is likely narrower. Harrell's concurrence would carry the day in the third part of the trilogy – *Stabbe* (2011).

In *Stabbe*, Justice Harrell now writing for the court, expressed more skepticism regarding the CSI Effect and confirmed that anti-CSI Effect instructions should be confined to situations when the defense overreaches and implies the state had some obligation to use some forensic technique. Harrell's conclusion, which was later quoted with approval in *Carrero-Vasquez v*. *State* (2013, p. 664) is worth reproducing in full due to its discussion of the whether the CSI Effect actually exists:

In closing and with a nod to the future, we observe that, because of the currently inconclusive state of the scholarly legal and/or scientific communities' research, taken as a whole, regarding whether such a phenomenon as the "CSI effect" exists, the use of "anti-CSI effect" jury instructions (especially when given pre-emptively before closing arguments or otherwise improper defense questioning or commentary during trial regarding the absence of scientific evidence as part of States case) is fraught with potential for reversible error. To the extent that such an instruction is

requested, its use ought to be confined to situations where it responds to a correction of a pre-existing overreaching by the defense, i.e., a curative instruction. [emphasis added]

Massachusetts courts have similarly struggled with the use of anti-CSI Effect instructions. They have established a more permissive attitude towards the defense drawing attention to the prosecution's failure to present forensic evidence. This defensive tactic is in fact known as a *Bowden* defense for its use in the case *Commonwealth v. Bowden* (1980). In such cases the defense may request an instruction stating that a reasonable doubt *may arise* from law enforcement's failure to adequately investigate the crime. This perspective, at least facially, appears to reflect a lack of concern for the CSI Effect.

Commonwealth v. Seng (2010) represents an anomaly with regards to Massachusetts' permission of Bowden defenses. In that case, the trial judge discussed CSI and instructed jurors to disregard it in considering the type of evidence that the prosecution failed to proffer: "And I remind you that this is real life and not CSI. I say that without being facetious. It's been observed across the country that people who've watched that particular program and similar programs tend to think that life is all that sort of science fiction and it's not." (Seng, 2010, p. 296)

The trial judge in *Seng* went on to urge the jurors to not to speculate about evidence that was not proffered and why it was not proffered. The Court of Appeal in *Seng* remarked that instructions of the kind given by the trial judge are typically problematic and unnecessary because jurors can be trusted to discriminate between reality and fiction. Still, it found the instruction did not result in error.

To summarize, some courts are cautious about giving anti-CSI Effect instructions and have expressed doubt about the CSI Effect's existence. For example, the Maryland courts typically only allow anti-CSI Effect instructions when the defense has harped on the state's

failure to lead forensic evidence. On the other hand, when courts do administer anti-CSI Effect instructions, they sometimes justify it by referencing the dangers of the CSI Effect.

A number of scholars support avoiding jury instructions that mention the *CSI* Effect because of the lack of support for the existence of the CSI Effect (see Feeler, 2014 for a review). In other words, scholars echo the current view of the Maryland courts: it is dangerous to advantage the prosecution when the very basis for these instructions – the CSI Effect – may not meaningfully impact juries at all.

4.2 Negative Evidence

Negative evidence is introduced to "explain the absence of forensic evidence to rebut or preempt defense arguments", and thus help prosecutors lessen the impact of the *CSI* Effect (Cole & Dioso-Villa, 2011, p. 30). For example, the state may introduce an inconclusive DNA test to establish that it had performed a diligent and complete investigation.

In practice, negative evidence may lead to longer and more expensive trials (Cole & Dioso-Villa, 2011; Kinsey, 2012). Defense lawyers may object to such evidence by debating its relevance or arguing that it is prejudicial to the defendant. Still, courts have traditionally held that negative evidence is relevant (Kinsey, 2012).

In *State v. Cooke* (2007), the prosecution introduced a great deal of negative evidence to counter the potentiality of a CSI Effect. *Cooke* also contains one of the most extended judicial analyses of the CSI Effect. The defendant was charged murder, rape and arson, among other crimes. He moved to exclude the state's forensic evidence because most of the tests were inconclusive and thus irrelevant.

The State argued that the evidence, although inconclusive, was relevant because of the CSI Effect. In other words, heighted expectations regarding forensic evidence justified the

admittance of inconclusive results to demonstrate that the state had performed a competent investigation. In other words, the state argued it negative evidence was admissible to demonstrate it had met the CSI standard.

The Court embarked on a lengthy independent review of the CSI-Effect literature and ultimately admitted the evidence. It noted a divergence of opinion in that academics "saw no basis for the 'Effect' but experienced attorneys handling criminal jury trials did." (*Cooke*, 2007, p. 11). Judge Herlihy noted that he himself had witnessed criminal defendants taking advantage of the CSI effect by suggesting to juries that the state had not conducted a thorough investigation. He stated that the state should be allowed to introduce inconclusive evidence as poof of the exhaustiveness of its investigation, especially when the evidence was not prejudicial to the defense (as was the case in *Cooke*).

The admittance of negative evidence does not have an obvious prejudicial effect on the defense and is thus it is less controversial. Still, as mentioned above, it can be distracting and time-consuming. And absent the CSI Effect, it is unclear how negative evidence has a tendency to bear on the presence or absence of an element of a crime. Another frequently used remedial measure is reviewed in the following section – removing jurors who have been influenced by CSI programming.

4.3 Jury Selection

Some prosecutors seek to combat the CSI Effect by removal of any candidates that may bring a CSI perspective to the courtroom. This is not an uncommon practice (Kinsey, 2012). For example, in Maricopa County, 70% of prosecutors report asking potential jurors about the CSI Effect during *voir dire* (Kinsey, 2012, p. 338-339). This practice reflects the growing awareness

among academics of the degree to which CSI has permeated the criminal justice system itself (Mopas, 2007). In fact, some scholars suggest removing jurors who bring the CSI Effect into the courtroom prior to their involvement in the trial is an appropriate way to counter the CSI Effect's potential influence (e.g., see Griebel, 2012).

Still, scholars recommend caution when addressing the CSI Effect during jury selection (Feeler, 2014). They worry that informing the jury that certain tests are not required, or downplaying the role of forensic science in the criminal justice system, may result in a lowered burden of proof for the prosecution (Feeler, 2014). Therefore, the phrasing of the questions asked of the jury during this process must be carefully thought out.

An example of probing for the CSI Effect during jury selection is found in in the Massachusetts case *Commonwealth v. Gray* (2013). In *Gray*, the trial judge asked potential jurors if the absence of DNA or fingerprint evidence would prevent them from fairly evaluating the evidence in the case. On appeal, the defendant argued this question deprived him of his right to an impartial jury. The appellate court explicitly linked the DNA and fingerprint question to the CSI Effect, but expressed doubt as to whether the CSI Effect is a legitimate concern: "The question posed to potential jurors in this case suggests that the judge was concerned with the so-called 'CSI effect,' a largely speculative theory... [emphasis added]" (*Gray*, 2013, p. 338)

Ultimately the court decided that, despite skepticism regarding CSI Effect, the questions posed in *Gray* were permissible. In particular, the questions did not suggest the jurors would be predisposed to convicting solely on the prosecution's evidence without regard to their failure to

introduce forensic evidence. Still, the court stated that such questions should be used "sparingly" (*Gray*, p. 339).¹

The experience in *Gray* paints a picture similar to that found in the anti-CSI Effect instructions case law. Courts appear dubious about the CSI Effect and generally caution against measures designed to counter the effect. However, if there is no clear bias or harm arising from the measure, the court will typically adopt a permissive stance. The story is similar when parties address CSI in closing arguments.

4.4 Closing Arguments

Attorneys sometimes also address the CSI Effect is during closing arguments by explaining why particular tests were performed or not performed. For example, the prosecution may explain the divergence between real life and CSI when justifying a lack of forensic evidence. The defense, on the other hand, may suggest a negative inference can be drawn from the prosecution's failure to present forensic evidence (Lawson, 2009).

Gray (2013) also included an allegation of prosecutorial misconduct during closing statements. Recall that the trial judge asked about conviction without forensic evidence during jury selection. The prosecution later referred to this statement in closing suggesting the jury should indeed ignore the lack of forensic evidence. While the appellate court noted that this was not proper to refer the judge's prior statement, it found that in the context of the entire closing, the statement was not prejudicial to the defense.

¹ Without commenting on the likelihood of the CSI Effect, the Court of Criminal Appeals of Alabama also allowed questions going to whether any member of the venire would view a case negatively if there was an absence of forensic evidence (*Jackson v. Alabama*, 2014).

4.5 Summary

The cases above demonstrate that there are several measures available to the prosecution to attempt to combat the CSI Effect. Courts tend to scrutinize the use of these measures. Some courts appear to place more faith in the CSI Effect, and are thus more permissive about the use of anti-CSI Effect measures (e.g., *Cooke*). Others are more dubious of the effect and have greatly restricted the situations when anti-CSI Effect measures are permissible (e.g., *Stabbe*). Courts, for the most part, acknowledge the lack of empirical evidence for the CSI Effect, but seem unwilling to rule the possibility of such a phenomenon. They therefore allow remedial measures in limited cases, when such measures do not prejudice the defense.

5. Conclusion

The CSI Effect's history is marked by uncertainty, with disagreement over the very direction of its central hypothesis (i.e., does CSI, on balance, advantage or disadvantage prosecutors?). This review has aimed to clarify the field. While there are still several areas doubt within the CSI Effect literature, this review offers preliminary conclusions and avenues for future research.

Regarding perceptions of the CSI Effect, empirical and qualitative studies find that lawyers and law enforcement personnel believe that forensic dramas hold sway over jurors and the public at large. These perceptions appear self-serving, with prosecutors claiming that the CSI Effect makes it more difficult convict guilty parties (i.e., the strong prosecutor's effect) and defense attorneys claiming the CSI Effect biases jurors against the defense (i.e., the defendant's effect).

Psychological research surrounding schemas can support either of the main versions of the CSI Effect (i.e., the strong prosecutor's effect and the defendant's effect). A schema that forensic evidence is ubiquitous and sophisticated may generate the strong prosecutor's effect as jurors inappropriately disregard non-forensic evidence because it does not fit their schema of appropriate evidence. This is especially likely when little to no forensic evidence is available to the prosecution. Alternatively, a schema that forensic scientists are infallible may generate the defendant's effect by causing jurors to place undue weight on forensic scientific expert testimony.

Even if CSI had no meaningful effect on the judgment and decision making of jurors, the very fact that many prosecutors believe the CSI Effect to be real may coax them into self-defeating behaviors. Self-fulfilling prophesies occur when parties have expectations about the behavior of a group and thus act in a way that brings about that expected behavior. The well-documented weak prosecutor's effect may therefore disadvantage prosecutors by causing them to lose confidence in the quality of their case and spend valuable time and resources fighting a CSI Effect that did not already exist. Moreover, the prosecution may prime the unattainable CSI standard by questioning the venire about their CSI viewing habits.

With regard actual existence of a CSI Effect, difficult-to-interpret negative findings predominate in the empirical literature. Evidence for robust cultural psychological phenomena typically converge across multiple empirical methods. The experience with the CSI Effect has been the opposite, with three types of research (i.e., trial transcript, questionnaire, and longitudinal) failing to converge on any reliable conclusion.

There is work yet to be done in attempting to measure the CSI Effect. While it is discouraging that research that was likely biased in favor of demonstrating the effect (e.g., see

the discussion of priming in the Shelton et al, 2006 research program) failed to produce positive results, other research is worthy of further efforts. For example, a promising trial transcript design (Schweitzer & Saks, 2006) was underpowered to find a small effect. Future research can build on the existing body of research by attempting appropriately powered and designed trial transcript studies, as detailed above.

While researchers have not found a reliable effect of CSI viewership on conviction or acquittal, they have found evidence suggesting that the perceived realism of CSI and the expectations created by CSI may be impactful. More specifically, those who ascribe a high degree of realism to CSI may be biased in favor of the prosecution when the prosecution leads forensic evidence (i.e., the defendant's effect). In addition, CSI viewership may increase expectations about evidence among some jurors, thus biasing them in favor of the defense. Researchers should attempt to replicate these proximate effects, and use them to fill in the theory of the CSI Effect.

Reflecting the struggle of researchers and academics, courts have labored to develop fair safeguards and procedures to prevent the mainly hypothetical CSI Effect from influencing proceedings. For instance, courts will allow consideration of the CSI Effect during jury selection and closing arguments. Judicial instructions reminding jurors that the prosecution need not present forensic evidence to make its case are also administered in some jurisdictions. Courts often justify such measures by reference to the CSI Effect.

In justifying measures such as anti-CSI Effect instructions, courts are in a difficult position because while many judges personally believe in the CSI Effect (Maeder & Corbett, 2015), there is scant empirical evidence to support it. Others appear to simply not want to prejudice the prosecution on the off chance that the CSI Effect does exist (*Cooke*, 2007).

The scientific findings reviewed above suggest the Maryland courts have developed the most sensible and science-based approach to the CSI Effect. As noted above, if a CSI Effect exists, it is likely quite small and possibly negligible. Moreover, due to the self-fulfilling prophesy, it is plausible that anti-CSI Effect measures do nothing more than perpetuate the effect. The Maryland approach, which administers anti-CSI Effect only when the defense has already primed the jury with the CSI comparison (i.e., the strong prosecutor's problem), avoids triggering the self-fulfilling prophesy. Still, it is sensitive to the fact that an explicit comparison with the CSI standard (rather than mere familiarity with the show) may be quite dangerous.

To conclude, the CSI Effect presents a considerable challenge to both academics, courts, and even taxonomists who struggle to classify the multiple hypotheses housed within the term. The CSI Effect may ultimately go the way of its forefather, the Perry Mason Effect (Stern, 2011, p. 373). Under the Perry Mason Effect, jurors purportedly expected a last minute confession or witness resolving the proceeding and were disappointed when life did not imitate art. The public already appears to be tiring of forensic dramas, with the final season of the original CSI drawing nearly half the viewers as the first season (de Moraes, 2015). Until CSI runs its course, courts should maintain a cautious approach in allowing anti-CSI Effect measures, and researchers should continue to explore what is still a poorly understood effect.

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