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Keywords
forensic science, crime based television, juror bias

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The “CSI Effect” was first described in the media as a phenomenon resulting from viewing forensic and crime based television shows. This effect influences jurors to have unrealistic expectations of forensic science during a criminal trial and affect jurors’ decisions in the conviction or acquittal process. Research has shown the “CSI Effect” has a possible pro-defense bias, in that jurors are less likely to convict without the presence of some sort of forensic evidence. Some studies show actors in the criminal justice system are changing their tactics, as if this effect has a significant influence, causing them to request unnecessary crime lab tests and expert testimonies. One of the solutions proposed to overcome this influence is creating multimedia jury instructions, such as using photos, animations, and videos, regarding any forensic testing process applicable to the case to correct any misinformation and facilitate learning. A second solution is to develop a scale, which will assist in identifying jurors who have been influenced by these types of television shows, to eliminate them from the jury selection process before the start of a trial.
Introduction

The “CSI Effect” has been described as a phenomenon in which the viewing of crime and forensic based television shows affects the decisions made by jurors in a trial (Kim, Barak, & Shelton, 2009; Hayes-Smith & Levett, 2011). This phenomenon has been theorized to exist since the early 2000s when television shows like CSI, and its various spin-offs, became popular (Hewson & Goodman-Delahunty, 2008). This effect leads jurors to have unrealistic expectations of forensic tests and possibly cause them to incorrectly weigh the importance of either the absence or presence of forensic evidence. This problem could create a bias and cause a juror to more likely acquit without the presence of forensic evidence, or more likely to convict based on a misinterpretation of forensic evidence. Studies have shown attorneys and other actors in the criminal justice system are operating as if this phenomenon is a reality, causing unnecessary work and tests to be completed to overcome any suspected bias (Wise, 2010).

The misinterpretation of forensic evidence and the unnecessary examinations are a problem for all aspects of the criminal justice system, especially attorneys and crime lab personnel, as well as society in general (Kim et al, 2009; Hayes & Levett, 2012). If bias exists in jurors, who watch crime and forensic based television shows, then decisions could be made based on these preconceptions rather than solely on facts of the trial. This could lead to a verdict which would not have been reached if members of the jury had not had this outside influence. Without an impartial jury, an innocent person could be convicted of a crime he or she did not commit, and the probability of a guilty offender going free increases.
The “CSI Effect” has been popularized in media since the advent of forensic and crime based television shows, and attorneys have been changing their tactics to overcome this source of possible bias (Hayes-Smith & Levett, 2011). More specifically, attorneys ask for unnecessary forensic tests to include some aspect of forensic evidence presented in the trial (Wise, 2010). These unnecessary examinations can potentially affect crime labs negatively, including creating a backlog, which decreases the effectiveness of existing labs. The backlog, thus, increases the chance lab personnel will offer fabricated evidence and opinions to meet with the increased demand, and perpetuating the unrealistic expectations of forensic evidence by complying with unreasonable requests (Cooley, 2007 as cited in Wise, 2010).

This issue is important because, independent of its actual existence, a perceived “CSI Effect” is negatively impacting the criminal justice system (Hayes-Smith & Levett, 2010). Furthermore, if watching forensic and crime based television shows does create an underlying bias or unrealistic expectation for forensic evidence, then it is an issue, which needs to be addressed since it has the potential to unjustifiably affect convictions or acquittals (Kim et al., 2009). This paper will show how television viewing habits of jurors, who watch crime and forensic television, can influence the decisions they make in their interpretation and expectations of forensic evidence.

**Background of the “CSI Effect”**

*CSI* and shows alike provide an unrealistic and glorified view of the real-world capabilities of current forensic testing and overvalue the importance of certain types of forensic evidence (Wise, 2010). One type of forensic evidence highly focused on these shows is DNA. DNA evidence is often portrayed as not
only being easily found, but also being in complete and uncontaminated samples. The depicted testing process for this evidence generally takes hours rather than weeks. This evidence is portrayed as infallible, leading to the underlying theme many of the shows have, including forensic science disproving non-scientific evidence such as witness statements and suspect interviews (Wise, 2010; Hayes & Levett, 2012). This gives the impression, and could subsequently influence jurors to believe, “that people lie, but science always tells the truth” (Hayes & Levett, 2012, p. 217).

It has been suggested the “CSI Effect” closely resembles the *Cultivation Theory*, which postulates the frequency of television viewing, in general, affects the way viewers perceive social reality (Hayes-Smith & Levett, 2011). Gerbner and Gross (1976) conducted the first study of this theory, and they found heavy television viewers (four or more hours of daily viewing) had a greater likelihood of providing a “television answer” to questions about crime, police, and danger rather than an answer more true to reality (as cited in Hayes-Smith & Levett, 2011, p. 30). In this study, the “television answer” was described as the unrealistic world as portrayed in television shows. Research, which focuses on the criminal justice aspects of television viewing, demonstrates heavy viewers have unrealistic viewpoints of the criminal justice system (Hayes-Smith & Levett, 2011, p. 30).

While varying aspects of the “CSI Effect” and its influence are widely debated, there are two contrasting viewpoints about this effect, which are a reoccurring theme in studies; including whether it influences a pro-prosecution bias or a pro-defense bias (Wise, 2010; Hayes-Smith & Levett, 2011). A pro-prosecution bias has been described as a jurors’ increased
likelihood to see forensic evidence as infallible and blindly accept the evidence as reliable and accurate (Wise, 2010). In contrast, a pro-defense bias has been described as a jurors’ unrealistic need for forensic evidence to convict. Whether or not biases exist, attorneys and other actors in the criminal justice system are making decisions as if it is a real influence, which has to be overcome. Prosecutors are ordering unnecessary forensic tests to present juries with some type of forensic evidence, and defense attorneys are including additional unnecessary expert witnesses in an attempt to devalue this forensic evidence (Hayes & Levett, 2012).

**Supporting Research**

Hayes-Smith and Levett (2011) surveyed a pool of 104 dismissed jurors to find out if there was a relationship between the viewing of crime and forensic based television shows and the decision to convict, based on mock cases, which had varying levels of forensic evidence. More specifically, this study focused on determining if there was evidence supporting a pro-defense or pro-prosecution bias (Hayes-Smith & Levett, 2011). The participants were sampled from the South and consisted of 51 females and 53 males. These individuals were surveyed regarding their television viewing habits, both in general and in regards to crime and forensic based television shows. The participants were then provided written trial case scenarios, which had a high, medium, or low presence of forensic evidence. The decisions made on the scenarios were compared with the answers provided regarding television viewing habits to determine if there was a correlation between the decisions being made.

The results of this study showed a heavy habit of television viewing (both crime-type shows and other non-crime
genres) influenced decisions made by the participants, supporting the *Cultivation Theory* (Hayes-Smith & Levett, 2011). Heavy viewers of television were found less likely to convict cases with low levels of forensic evidence compared to those who watched less television. The results also showed participants, who were heavy or daily viewers of crime-based television shows were less confident of their decision if they choose to convict when there was little or no forensic evidence compared to those who watched less of these types of shows. These results support a pro-defense bias, in which viewers were hesitant to convict without forensic evidence. The study showed no support for a pro-prosecution bias, in which heavy viewers of crime-based television shows were not more likely to convict than the lighter viewers of these shows in forensic evidence cases.

Hayes & Levett (2012) performed another study to find out if members of the community knew about the “CSI Effect,” and if so, whether knowing about it influenced their beliefs about forensic evidence. This study was done in part to address the issue of prosecutors and defense attorneys still changing how they handle cases at trial, regardless of the existence or relevance of this effect (Hayes & Levett, 2012). This study consisted of conducting an online survey of 191 randomly selected members of a community, which consisted of 35% males and 65% females. The survey consisted of questions to evaluate whether or not the participant was aware of the existence of a “CSI Effect” (and its meaning) and questions related to their television viewing habits.

The results indicated majority of those surveyed (70%) did not have any knowledge of the “CSI Effect,” despite a large percentage of participants reporting significant viewing habits of
crime and forensic based television shows (Hayes & Levett, 2012). The participants, who had heard of the effect, described it as a pro-defense bias and indicated affected jurors would be less likely to convict without forensic evidence. The results also indicated those who were aware of the potential bias would take measures to ensure it did not affect their decisions if chosen to be a juror, suggesting education about this phenomenon might be a way to overcome it.

**Opposing Arguments**

Some studies have shown the “CSI Effect” has no significant influence in criminal trials, despite the various actors in the criminal justice system operating as if this effect needs to be overcome (Wise, 2010). Kim et al. (2009) conducted a survey on a pool of 1,027 jurors to evaluate if the CSI Effect has a notable influence on trial decisions, while taking into consideration the individual characteristics of each participant such as their education level and age demographic. A questionnaire designed to evaluate the likelihood of prosecution was based solely on eyewitness testimony and circumstantial evidence, which were provided to the participating jury (Kim et al., 2009). The questionnaire also determined the viewing habits of the participants in regards to CSI-type drama shows and other crime related television.

This study showed exposure to CSI-type television shows had no effect on whether or not the participant chose to convict when there was only eyewitness evidence and a lack of forensic evidence (Kim et al., 2009). The results did show, however, heavy viewers of these types of shows did hold circumstantial evidence at a lower probative value. The authors of the study theorized this might be because CSI-type drama shows can educate prospective jurors and other viewers of the

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problems associated with circumstantial evidence, forcing them to consider it more carefully rather than suggesting this as a bias or unjust influence. Despite the argument presented by the authors, it could also be theorized these results correlate with the pro-defense bias of the “CSI Effect.”

**Proposed Solution**

There is evidence showing there could be a pro-defense bias when it comes to the “CSI Effect” (Hayes-Smith & Levett, 2011). In addition, this effect’s perceived existence, regardless of its actual existence, is affecting how the criminal justice system operates, suggesting it has to be addressed in a criminal trial (Wise, 2010). Hewson & Goodman-Delahunt (2008) conducted a study examining the effects of replacing written or oral jury instructions with a multimedia-type presentation as a proposed solution to overcome this influence. The authors’ theorized education, through multimedia-type instructions, had the potential to increase comprehension regarding forensic evidence when compared to traditional jury instructions.

Those individuals who advocate learning with multimedia argue it is easier to learn and retain information when it is presented verbally and visually (Hewson & Goodman-Delahunt, 2008). It has been suggested this is because both the right and left sides of the brain share the cognitive load. According to research, multimedia learning is better at improving knowledge of a topic to individuals who are considered “visual learners” – those who prefer to get information visually rather than verbally – than verbal instructions alone. These characteristics of multimedia learning can be applied to helping jurors understand the relevance and limitations of forensic evidence.
Hewson & Goodman-Delahunty (2008) conducted a study where a mock trial was conducted using excerpts from a real homicide case, which had circumstantial evidence, including DNA evidence. Jury instructions regarding generic information on current forensic technology for DNA and information on the random match probability on DNA samples were presented, having the previous text-only instructions modified to include animations, videos, and photos to illustrate the different processes and components. The results of the study participants held less trust in DNA evidence post-trial after they were presented with the multimedia presentation, inferring a decrease in the belief forensic evidence is infallible. This result suggests being able to properly educate jurors on the actual limitations of forensic evidence in a clear and easy to follow fashion is a possible solution to overcome any bias or misinformation caused by the viewing of forensic based television shows.

As second solution to this problem would be to try to identify those jurors who hold a bias in relation to forensic evidence before the start of a trial. Smith & Bull (2012) created a study to examine this possible solution, where the purpose was to develop a scale, which could help evaluate if a juror holds a forensic evidence bias. This scale was created by interpreting literature on the “CSI Effect,” specifically focusing on aspects considered problematic when there is presentation of forensic evidence (Smith & Bull, 2012). The scale was reduced to 10 items designed to address both the pro-defense and pro-prosecution aspects of the “CSI Effect.”

The development of a scale, which can be used during the voir dire process, can be beneficial in identifying those who hold a bias, either pro-prosecution or pro-defense, before the start of a trial (Smith & Bull, 2012). Attorneys can take into
account the results of the pre-trial scale and eliminate those who might already have preconceptions regarding forensic evidence. Having a way to identify any bias related to the “CSI Effect” during the jury selection process can help negate or reduce the problems, which could be caused by a juror’s previous viewing habits of forensic and crime based television shows.

Both of these solutions have inherent problems and limitations. Using a multimedia-type presentation to convey information regarding complex forensic evidence processes may be better than text only instruction. However, it still may not be enough to overcome any bias, which could have been instilled in a potential juror (Hewson & Goodman-Delahunty, 2008). In addition, multimedia presentations would have to be created for each aspect of forensic evidence brought up in a criminal trial. Developing a forensic bias scale may also be problematic, as it may not accurately identify every juror who has a bias. Questions could be misunderstood and not answered accurately to get dismissed from jury duty, or not be extensive enough to identify the bias (Smith & Bull, 2012).

**Conclusion**

The “CSI Effect” has been a widely debated issue, which has received mixed results from various studies, some suggesting there is evidence of its effect on jurors’ decisions and some showing that bias may exist even though it causes negligible influence (Hayes-Smith & Levett, 2011; Kim et al., 2009). While the studies in this paper have noted limitations, such as small sample size, limited demographics, there are common themes throughout the articles, despite the varying sample groups, such as heavy watching of any television genre can alter how the viewer perceives social reality, not just as related to criminal justice but all aspects in society (Hayes-Smith & Levett, 2011;
Hayes & Levett, 2012). This correlation suggests it could be assumed people, who are heavy viewers of crime and forensic shows, can have their views of the criminal justice system skewed, and thereby altering decisions.

A second aspect of the “CSI Effect” seen in the research is when there was a noticeable effect on a participant’s decision theorized to have been influenced by viewing forensic based dramas, such as a pro-defense bias (Hayes-Smith & Levett, 2011; Kim et al., 2009). There is less evidence to suggest a pro-prosecution bias, in which the jurors hold forensic evidence as infallible. It was further found those who watch a lot of forensic based television shows might also find circumstantial evidence less reliable compared to their counterparts who do not watch these types of shows (Kim et al., 2009). These results suggest previous viewing experiences of jurors, who watch crime and forensic television shows, have an influence on the decisions they make in their interpretation and expectations of forensic evidence.

An interesting characteristic of the “CSI Effect” is actors in the criminal justice system are operating as if this effect does have both a pro-defense and pro-prosecution influence over jurors’ decisions (Wise, 2010). This can cause the aforementioned problems by creating unnecessary work and congestion in crime labs, and the presentation of unneeded evidence to juries. A more proactive approach to combating any possible influence, such as the creation of a forensic bias scale or multimedia-type presentations explaining the forensic processes applicable to the case, could be more beneficial than taking a purely reactionary approach (Hewson & Goodman-Delahunty, 2008; Smith & Bull, 2012). It can be assumed the “CSI Effect” will continue to be studied as long as forensic and crime based
television shows continue their popularity. Expanding our current knowledge of its impact and effect on the criminal justice system will help further develop additional solutions, which can overcome any unjust influences this effect creates.

References


John Alldredge lives in the Bay Area with his wife and two children. He graduated from San Jose State University in 2014 with a bachelor’s degree in Justice Studies, and has been employed as a full-time police officer since 2006. His assignments in this position include canine officer, crime scene investigator, and major injury accident investigator. John plans on continuing his education by pursuing a master’s degree in the criminal justice field. When John is not dividing his time between work and school, he enjoys spending time with his family, mountain biking, kayaking, and traveling to new places whenever possible.