Exploring the *CSI Effect*: Is it Real? If so, What is it?

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There is no question that *CSI* and its related spin-offs are among the most popular shows in television today. Indeed, *CSI* is consistently among the top five shows (often #1 or #2) in North America (www.nielsenmedia.com). Recently, newspapers and television news programs (e.g., *USA Today, the Toronto Star, CNN*) have been reporting on how television crime dramas such as *CSI, Law & Order, Bones*, and other related shows may influence how people think about and behave relative to the legal system. The news media has dubbed this the *CSI effect.*

News media coverage often describes the lengths to which prosecutors and other legal professionals are trying to overcome the impact of these programs (e.g., see Patry, Smith & Stinson, in press). However, the social psychological literature is clear that working to overcome a "bias" is only effective if we can know the nature and extent of that bias (e.g., Wegener & Petty, 1997). Indeed, without knowing the nature of the bias one can easily over or under correct, particularly in the legal system (see Wegener, Kerr, Fleming & Petty, 2000). Thus, it has become clear that empirical evidence on the nature and consequences of the so-called CSI effect is warranted. In this paper we provide an overview of conceptualizations of the CSI effect and review recent work that has explored the effect, including some of our studies.

How is the CSI effect described?

Each episode of *CSI* tells the story of a sensational criminal case wherein forensic investigators use state-of-the-art techniques, sparing no expense (in either cost or personnel) to solve the crime. The techniques presented on these shows are usually plausible, as the show's producers are careful to use technically possible investigative tools, but surveys of police professionals suggest these techniques are far from common (see Stinson, Patry & Smith, in press). Thus, given the relative "inaccuracy" of these television programs, it is quite possible that viewers (and potential jurors) may be learning incorrect information from televised crime dramas. Importantly, a recurring theme in these programs is that the quality of scientific evidence is so good that the criminal is almost always caught and usually confesses in light of the overwhelming evidence against him (or more rarely, her).

Typically, media reports of the CSI effect include references to an undesirable effect exhibited during jury trials which results from juror's reaction to the presence or absence of "appropriate" scientific evidence as trial exhibits (see Tyler, 2006; Podlas, 2006). Essentially, the argument is that watching *CSI* causes jurors to have unrealistic expectations about the quantity, quality, and availability of scientific evidence (see Smith et al., in press; Stinson et al, in press). When the scientific evidence presented at trial fails to meet jurors' television-enhanced expectations, they are more likely to acquit the defendant. How accurate is this conceptualization of the CSI effect?

Recent Research on the CSI effect

Although many news reports have documented the perceptions of legal professionals with regard to the CSI Effect, there is little empirical research about this topic. One notable exception is an analysis of the perceptions and behaviors of members of the Maricopa County Prosecuting Attorney's Office (2005) which conducted a survey of 102 prosecutors to assess the perceived impact of the CSI Effect and how these lawyers are responding to this issue. Clearly, these lawyers believe *CSI* is having an effect, as 38% of attorneys reported they had lost a case because of the CSI effect; 45% contended that jurors relied on scientific evidence more than they should; and 72% maintained that *CSI* fans exerted undue influence on other jurors. In terms of solutions to the problem, 70% of prosecutors asked jurors

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about television viewing habits, 90% took the time to explain police procedures to jurors, and an amazing 52% plea bargained cases when they thought *CSI* -educated jurors might object to the evidence presented in the case.

Despite legal professionals' beliefs, little evidence exists regarding the impact of CSI and related shows on trial outcomes. The only published study on the matter that we are aware of (Podlas, 2006) has found no such relationship. In Podlas' study participants read a scenario of an alleged rape which was based entirely on the credibility of witnesses (no forensic evidence was presented), then rendered a verdict and reported on the basis for their decision. Although the lack of forensic evidence was the reason most often provided for mock jurors' decisions, frequent viewers of *CSI* were not more likely than infrequent viewers of *CSI* to cite the lack of forensic evidence for their not-guilty verdicts.

Considering this relative dearth of evidence, it is not surprising that the argument has been made that the purported CSI effect does not exist. Indeed, Tyler (2006) convincingly argues that despite claims that the CSI effect constitutes a pro-defense bias, the effect could actually produce a pro-prosecution bias. To support his argument, Tyler notes that in almost all the storylines on *CSI*, the criminal is caught and convicted. Tyler speculated that this consistent conclusive ending may give people unrealistic expectations for real life cases. Tyler argues that complaints about the CSI effect may in fact result from disgruntled prosecutors trying to find alternative explanations for their failures.

Our Recent Research on the CSI Effect

In conducting our research, we first wanted to understand how the CSI effect was described in the media. Thus our first study focused on an analysis of 250 newspaper articles from media sources. Our analysis suggested that the CSI effect tended to be described in the popular media as having one of four impacts: 1) television crime dramas have peaked student interest in Biology, Anthropology, Psychology and other forensically relevant topics leading to increased enrollments in these courses and relevant programs; 2) these shows have actually educated criminals in how to engage in criminal activity without getting caught; 3) jurors are influenced by *CSI* to expect too much evidence and thus acquit defendants; and 4) influencing how lawyers and other legal professionals behave. Because news reports frequently characterized the CSI effect as being negative and assumed that juror expectations were being affected by the unrealistic portrayals, our next study explored how *CSI* portrays crime scene investigation.

Our next study was a content analysis of the first seasons of *CSI* and *CSI: Miami* (see Patry et al., in press; Smith et al., in press). We sought to document the types of forensic procedures portrayed, the frequency of errors, and the frequency with which criminals were caught. We identified over 75 types of forensic evidence. Of all techniques used, 18.9% were DNA based, and 12% used fingerprinting, making them the two most common types of evidence portrayed. As expected, the criminal was caught in 97% of the storylines. Errors were rare and were always caught before any negative consequences could arise.

In three subsequent studies (Stinson, et al., in press) we surveyed legal professionals to assess their views on the CSI effect. First we conducted a web-based survey of nine defense lawyers, who typically did not view the CSI effect as a problem, but 2/3 said their crime dramas had distorted their client's views of the legal system. Next we surveyed of 127 Death Investigators (i.e., 83 Police, 28 Medical Examiners, 7 Fire/Arson Investigators, and 6 others) who confirmed that crime dramas are less-than-accurate, and have changed the way in which police practice, investigate, and interact with the public. Furthermore, 94% indicated that crime dramas influenced the public's expectations of their profession. We followed this up with a survey of 36 police officers completed a survey similar to that used in the previous study but with additional questions on the extent to which *CSI* and similar shows influenced juries, criminal behaviors, and perceptions of the legal system. Respondents were also asked to estimate the percentage of crimes which are solved on these shows, relative to real life. Although most of the police officers (68%) indicated that *CSI* had no effect on their behavior, almost all (92%) indicated that the shows had

some effect on public expectations. Most respondents indicated that the shows did not represent the court system accurately and that the shows had some effect on jury decision making. Importantly, all respondents felt that *CSI* affected people's *perceived* knowledge of forensic techniques, but most thought that knowledge was inaccurate. Although respondents estimated that the shows depicted a 94% solution rate, they estimated that only 40% of crimes are solved in real life (see Stinson et al, in press). Nonetheless, it is possible that legal professionals are over-reacting to media hype about the CSI effect, thus we have also explored the extent to which crime dramas influence public perceptions evidence.

In our next study, (see Patry, et al., in press) we surveyed 320 jury-eligible adults concerning several types of evidence. Participants clearly demonstrated a preference for scientific over more traditional forms of evidence, with DNA and fingerprint evidence consistently rated as the most reliable and useful evidence. Subsequent to this (Smith et al., in press) we explored how television viewing habits related to beliefs about forensic evidence. Data from 148 participants showed that self-reported viewing of *CSI* and *Law and Order* (0 to 15 hours per week) predicted favorable views toward a number of types of scientific but not non-scientific evidence. However, as correlation does not necessarily indicate causation, we conducted another study to test for a causal relationship between exposure to *CSI* and attitudes toward forensic evidence.

For the causal study (see Smith et al., 2006), we randomly assigned 190 undergraduates to watch zero, four, or eight episodes of *CSI*. Compared to those who did not view *CSI*, participants who watched 4-8 episodes of *CSI* had higher estimates of the reliability of DNA evidence, both accuracy and reliability of DNA and fingerprint analysis, and had more confidence in their judgments about the reliability of DNA analysis. It is quite possible that this effect occurs because DNA and fingerprint analysis are the techniques most commonly portrayed on the show.

In the final study we will present here, we explored the extent to which people's attitudes toward forensic evidence are malleable. Thus, we showed sixty-three participants a video entitled "Reasonable Doubt", produced by CNN, which has four segments providing a critical examination of the quality of DNA, compositional, fingerprint and fiber evidence. After watching the video (initial attitudes had been recorded earlier in the term in an ostensibly unrelated task) participants rated forensic techniques as less reliable, but it did not influence ratings of more circumstantial evidence (motive, opportunity, confessions, and alibi evidence).

Summary and Conclusions

Based on the studies we have conducted, we feel we can confidently say that the CSI effect does indeed exist, but not necessarily in the form typically found in media reports. In particular, we feel that there is evidence that crime dramas have had an influence on public perceptions of forensic evidence and of professionals working in areas related to criminal law. Further, the evidence we have presented here clearly suggests that legal professionals are changing their behavior in response to these perceived effects. Nonetheless, more research is needed, particularly in order to more clearly delineate the nature and consequences of the CSI effect.

One important question that remains is the extent to which the CSI effect influences trial proceedings. Nonetheless, the fact that legal professionals seem to be changing their behavior in response to the perceived impact of crime dramas on the public is quite interesting. Therefore it is imperative that social science address the issue of juror decision-making in order to properly inform the legal community of the nature of the CSI effect, as understanding the nature and magnitude of any bias is necessary before any intervention is appropriate (see Wegener et al., 2000). Our research suggests that people who watch *CSI* judge forensic evidence to be *more* reliable and accurate than the non-*CSI* watching public. Thus, consistent with the views of Tyler (2006) a pro-prosecution bias may be more likely, assuming the expected evidence is provided at trial.

Ultimately, it is clear that many questions remain unanswered with regard to the CSI effect. More research is needed in order to fully understand the extent to which television crime dramas are

influencing public expectations and interactions with the legal system, legal professionals, their investigative procedures, and finally, trial procedures and outcomes. The current situation where actions are being taken without consideration for the true nature of the CSI effect could very well lead to more problematic outcomes than CSI was believed to have caused in the first place.

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