

The *CSI* Effect: Is popular television transforming Canadian society?

✓ YES

The Reality of the *CSI* Effect

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INTRODUCTION

Television is a ubiquitous force in our society. But can it be said that popular television is transforming Canadian society? In this chapter, we will address the potential impact of one form of television media, the crime drama, on the legal system in Canada. In recent years, the news media has dubbed this potential influence the *CSI effect*. In the first part of this chapter we will consider an overview of the *CSI effect* and its potential influences. Next, we will examine some recent research on the *CSI effect* in the United States, followed by recent and ongoing Canadian research. Finally, we will consider some preliminary conclusions about the potential impact of the *CSI effect*.

OVERVIEW OF THE *CSI* EFFECT

Long-running television programs such as *CSI: Crime Scene Investigation*, *Law & Order*, and their numerous spin-offs are topping television viewer ratings in North America and internationally. For the 2005–2006 television season, these shows have ranked among the Nielsen top ten shows in the United States, and *CSI* is consistently among the top five shows (usually number one or two) in Canada.

Each episode of these crime dramas tells the story of a sensational criminal case (often “ripped from the headlines”), which investigators solve using state-of-the-art **forensic science**. Television crime dramas tend to blur the line between reality and fiction. The techniques presented on these shows are usually plausible, but they are often inaccurately depicted and far from common. Millions of viewers may be “learning” (incorrectly) how forensic evidence is gathered, processed, and analyzed. One recurring theme in these shows is that the quality of scientific evidence (such as DNA, fingerprint, and other evidence) is far superior to nonscientific evidence (such as confessions or eyewitness evidence). Moreover, these shows inculcate viewers with the notion that “science will lead us to the truth” and that “the evidence is there and is speaking to us.” What impact, if any, might this have on the Canadian viewing public?

The *CSI* effect is typically described in four different ways: (1) jurors are more likely to acquit defendants if they are fans of *CSI*, (2) legal professionals have changed their behaviour in order to deal with these perceived changes in juror behaviour, (3) television crime dramas have peaked student interest in topics related to forensic science, and (4) criminals are learning ways to avoid capture by watching these shows (Patry, Smith, Stinson, Head, & Hole, 2006). In this chapter, we focus on presenting the research evidence for the first two premises.

Most references to the *CSI* effect present it as an undesirable effect exhibited by jurors which results from their perceived expertise about forensic techniques and police investigations (see Podlas, 2006; Tyler, 2006). These reports suggest that watching *CSI* gives jurors unrealistic expectations about the quantity, quality, and availability of scientific evidence. Essentially, the argument is that owing to their perceived expertise on all matters forensic, *CSI*-educated jurors are expecting to see more scientific evidence and more compelling evidence than they have in the past. When the scientific evidence presented at trial fails to meet jurors’ expectations, they are presumably more likely to acquit the defendant. Believing this scenario to be true, legal professionals are changing their behaviour to address these apparent changes in juror expectations.

RECENT U.S. 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 behaviours of members of the prosecuting attorney’s office in Maricopa County, Arizona. The prosecuting attorney’s office conducted a survey of 102 prosecutors to assess the perceived impact of the *CSI* effect and how these lawyers are responding to this issue (Maricopa County, 2005).

The report showed that prosecutors believe there is a *CSI* effect: 38 percent of attorneys reported they had lost a case because of the *CSI* effect; 45 percent contended that jurors relied on scientific evidence more than they should; and 72 percent maintained that *CSI* fans exerted undue influence on other jurors. The prosecutors also cited striking examples of acquittals. In one case a man was acquitted of drug possession after the jury apparently ignored a police officer's eyewitness account of the suspect tossing a packet of drugs. Jurors reasoned that the package should have been fingerprinted. In another acquittal, corrections officers had removed drugs from a body cavity of a prisoner. Jurors stated that residue on the baggie should have been subjected to DNA analysis. The Maricopa county report also documented the approaches prosecutors had taken to reduce the *CSI* effect: 70 percent asked jurors about television-viewing habits; 90 percent took the time to explain police procedures to jurors; 52 percent plea-bargained cases when they anticipated their evidence was insufficient to overcome the *CSI* effect; and 83 percent felt judicial instructions (i.e., instructions provided by the judge to the jury before deliberations take place) would be appropriate.

Despite the beliefs of legal professionals, the extent to which trial outcomes can be directly attributed to the effect of television crime dramas remains unclear. To date, three studies have assessed the *CSI* effect in a legal context. Podlas (2006) reasoned that frequent viewers of *CSI* should hold specific beliefs consistent with the image of forensic science portrayed in the shows. In that study, participants read a scenario of an alleged rape that 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. Podlas concluded that the data did not support the idea of an anti-prosecution *CSI* effect.

In another set of studies, O'Neil and his colleagues found limited support for a relationship between viewing *CSI* and mock juror decision making. They conducted two mock juror studies in which they examined self-reported viewing of crime dramas to test for relationships between viewing habits, perceptions of evidence, and verdicts. In one study the data showed relationships between crime drama TV viewing and perceptions of evidence and the defendant, but viewing habits had no impact on mock juror verdicts (Reardon, Cooper, Morales, & O'Neil, 2006). A second study also showed no relationship between self-reported viewing of crime dramas and mock juror verdicts (York, O'Neil, & Evans, 2006). These studies suggest that watching *CSI* and other law-related programs may influence mock jurors' perceptions of evidence and may play a role in decision processes. However, there is no overwhelming empirical evidence that viewing these programs directly influences jurors or jury verdicts.

Given this inconsistent evidence, perhaps it is not surprising that some scholars have argued that there is no *CSI* effect, or that if one exists at all it probably favours the prosecution. Tyler (2006) argued that although evidence on television violence, juror decision making, and pretrial publicity suggests that a pro-defence *CSI* effect could exist, there are equally compelling arguments that the *CSI* effect could be working in the prosecution's favour. For example, in almost all the storylines on *CSI*, the criminal is caught and convicted. Indeed, in our content analysis of

the first season of *CSI* and *CSI: Miami*, almost 100 percent of the storylines ended in the criminal being caught (Patry et al., 2006). Tyler speculated that this consistent conclusive ending may give people unrealistic expectations for real-life cases. Therefore, complaints of a pro-defence bias may be erroneous, and may be the result of disgruntled prosecutors trying to find alternative explanations for their failure to win more cases. Tyler highlighted the need for empirical investigations of the *CSI* effect to determine what influence (if any) shows like *CSI* and *Law & Order* have on the general public. To address these and other issues, we have begun to conduct some empirical research along these lines.

RECENT AND ONGOING CANADIAN RESEARCH ON THE *CSI* EFFECT

To address the critique that research on the *CSI* effect has been merely anecdotal and lacking in scientific rigour, we conducted seven studies, briefly summarized below. Taken together, this research provides substantive evidence for a *CSI* effect in Canada (see Table 2.1 for a summary of the studies).

In conducting our research, we first wanted to understand how the *CSI* effect was described in the media (see Table 2.1 for a description of the Patry et al., 2006, study, hereafter referred to as Study 1). Examples of some of the headlines from articles about the *CSI* effect include “‘CSI effect’ has juries wanting more evidence” (Willing, 2006) and “‘The CSI Effect’: Does the TV crime drama influence how jurors think?” (2005). The results of Study 1 suggested that the news media reports frequently characterized the *CSI* effect as negative and assumed that juror expectations were being affected by the unrealistic portrayals of crime scene investigation on television crime dramas. Thus, our second goal was to explore the extent to which *CSI* accurately portrays crime scene investigations and scientific analysis of evidence.

In Study 2, we conducted a content analysis of the first seasons of *CSI* and *CSI: Miami* (see Patry et al., 2006). We sought to document the types of forensic procedures portrayed, the frequency of errors, and the types of sentiments expressed by characters on the show, such as the theme that scientific evidence, when properly gathered, leads to the truth. We identified over 75 forensic evidence techniques portrayed on the shows. The two most common types were DNA evidence, which was present in 18.9 percent of the main storylines, and fingerprint evidence, which appeared 12 percent of the time. There was a consistent theme that science is the only truth. Finally, the perpetrator of the crime was successfully identified in 98 percent of the storylines, since on *CSI*, evidence that conclusively points to the guilt of one suspect is almost always available at the crime scene, a condition that is far less common in real life. Importantly, on the *CSI* episodes we examined, forensic investigators conducted scientific tests of evidence 72 percent of the time, whereas in real life, it is specialized laboratory technicians who conduct these tests (T. McCullough, personal communication, 2005). Thus, there is a clear difference between how actual forensic investigations work and the way they are portrayed on *CSI* shows.

In Studies 3 and 4 (Stinson, Smith, & Patry, 2006), we surveyed legal professionals to determine the extent to which they perceive that crime dramas are influencing the public and whether or not their professional roles are affected by these programs. Study 3 was a Web-based survey of nine experienced Canadian defence lawyers. The lawyers generally did not see the *CSI* effect as a problem, though two-thirds said their clients had distorted views of legal processes and timelines

TABLE 2.1 Summary of Our Empirical Research on the *CSI* Effect

STUDY	TOPIC AND CITATION	METHODOLOGY	PARTICIPANTS	MAJOR FINDINGS
1	Content analysis of news coverage (Patry et al., 2006)	Content coding of over 200 news articles	N/A	Fourfold news media conception of <i>CSI</i> effect
2	Content analysis of shows (Patry et al., 2006)	Content coding of first season of the original <i>CSI</i> show	N/A	DNA and fingerprint evidence are most commonly portrayed forensic techniques
3	Defence lawyer perspectives (Stinson, Smith, & Patry, 2006)	Web-based survey	N = 9 experienced Canadian defence lawyers	<i>CSI</i> and other crime dramas influence perceptions of the legal system
4	Death investigator perspectives (Stinson et al., 2006)	Paper-and-pencil survey	N = 127 Canadian professional death investigators (e.g. police, fire, emergency workers)	Crime dramas influence public expectations of professionals, who have altered the way they interact with the public
5	Perceptions of forensic techniques (Smith, Patry, & Stinson, 2006, study 1)	Paper-and-pencil survey, snowball sampling	N = 320 Canadians	Scientific evidence seen as more reliable than nonscientific evidence
6	How <i>CSI</i> relates to attitudes (Smith et al., 2006, study 2)	Paper-and-pencil survey, snowball sampling	N = 148 Canadians	Self-reported viewing of crime dramas correlated with high expectations of forensic science
7	Causality and <i>CSI</i> exposure (Smith et al., 2006, study 3)	Experiment: random assignment to watch zero, four, or eight episodes of <i>CSI</i>	N = 190 Canadian university students	Exposure to <i>CSI</i> causes higher expectations of DNA and fingerprint evidence

as a result of television crime dramas. Most lawyers thought that judicial instructions regarding *CSI* would be useful.

In Study 4, we conducted a paper-and-pencil survey of 124 Canadian death investigators (83 police investigators, 28 medical examiners, 7 fire/arson investigators, and 6 others) attending a regional training seminar. These professionals overwhelmingly confirmed that crime dramas are less than accurate, and over half of the participants reported that these programs have changed the way in which they practise and/or investigate. For example, one participant remarked, "I am more careful to explain concepts to juries, understanding that they may think they know more than they do" because of the *CSI* effect. Another respondent said, "I watch the episodes so I will be aware of what kind of questions to expect." One participant noted that his/her behaviour in court had changed as a result of the *CSI* effect: "[You] have to explain why you did or did not do certain procedures." Almost all respondents (94 percent) indicated that television crime dramas have changed the Canadian public's expectations of their profession, and almost two-thirds of participants indicated that television crime dramas have influenced the way in which they interact with the public.

Thus, it is clear that legal professionals believe in the existence of the *CSI* effect, and they are changing their behaviour as a result. However, it is possible that legal professionals are overreacting to media hype about the *CSI* effect, a finding that has yet to be substantiated with empirical evidence. Therefore, in another series of studies we explored the extent to which shows such as *CSI* and *Law & Order* influence public perceptions of forensic evidence.

In Study 5 (see Smith, Stinson, & Patry, 2006), we surveyed a sample of 320 jury-eligible adults (e.g., students, military personnel, medical professionals, teachers, construction workers, banking professionals, and retired individuals) to obtain their opinions about several types of scientific and nonscientific evidence. The data clearly indicated that the Canadian public has a strong preference for scientific evidence over more traditional forms. Perhaps not surprisingly, DNA and fingerprint evidence were consistently rated as the most reliable and useful types for criminal investigations. Nonscientific forms of evidence (e.g., confession, motive and alibi evidence) were consistently rated as less useful and reliable. What is still unresolved is the origin of people's opinions about these forensic techniques. There are numerous potential sources for people's schemas and opinions about forensic techniques (e.g., other people, books, television, newspapers), but we suspect that television crime dramas such as *CSI* may be an important factor in this equation.

In our next study (Study 6; see Smith et al., 2006), we explored how people's television-viewing habits related to their beliefs about forensic evidence. Data from 148 participants showed that self-reported viewing of *CSI* and *Law & Order* shows was related to favourable views regarding a number of types of scientific evidence, but it was unrelated to ratings of nonscientific evidence. However, that study did not address the issue of causality, the question about whether viewing crime dramas is the *cause* of changes in people's expectations and perceptions of law enforcement and the legal system, or whether these changes may be due to some other factor. While a causal effect is plausible, the relationships we observed between viewing habits and opinions about forensic evidence may be due to the fact that people who are interested in forensic evidence, or science in general, may be more likely to watch the show. Thus, our objective for Study 7 was to test for a causal relationship between exposure to *CSI* and participant attitudes about forensic evidence.

In Study 7 (see Smith et al., 2006), we randomly assigned 190 Canadian undergraduates to watch zero, four, or eight episodes of *CSI*. To maximize external validity, we instructed participants to view the episodes in the comfort of their own homes or wherever they normally watch television. Participants assigned to view episodes of *CSI* took DVDs home with them and returned to the lab when they had completed their viewing assignments. Compared to those who did not view *CSI*, participants who watched four to eight episodes 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 these two types of evidence, DNA and fingerprint analysis, are also the techniques most commonly portrayed on the show (see Study 2). To our knowledge, this study is the first to demonstrate that watching crime dramas influences how people perceive different types of forensic evidence.

SUMMARY AND CONCLUSIONS

At the beginning of this paper, we asked the question of whether or not the *CSI* effect actually exists. It appears the answer to this question is a *qualified* yes. Taken together, the evidence summarized above points to the clear presence of a *CSI* effect in Canada, specifically with regard to public perceptions of forensic evidence and public perceptions of professionals working in areas related to criminal law. Further, the evidence suggests that changes in public expectations stemming from television crime dramas are having an impact on how these professionals perform their day-to-day tasks. However, more research is needed to determine the breadth of the *CSI* effect and its potential implications for Canadian society.

To return to the title of this chapter, is popular television transforming Canadian society? Based on the available data, we argue that, to some degree, programs such as *CSI* and *CSI: Miami* are influencing Canadian society. However, the full extent, nature, and implications of this effect are yet to be determined. One important issue that is not yet clear is whether the *CSI* effect is likely to influence trial proceedings. Indeed, current evidence suggests that it may not (see Podlas, 2006; Reardon et al., 2006; York et al., 2006). Nonetheless, legal professionals seem to be changing their behaviour in response to the *CSI* effect, which could be unwise in the absence of conclusive evidence about the exact nature and consequences of this effect. It is important to understand the nature of any potential bias at the jury level before undertaking any intervention (see Wegener, Kerr, Fleming, & Petty, 2000). If the strength of the bias is underestimated, the intervention will be ineffective in eliminating the bias. Alternatively, if the bias is overestimated, any correction applied may have a boomerang effect, resulting in further unfair outcomes. Thus, additional research in this area is required before meaningful policy changes or other major reform efforts can be developed (see also Tyler, 2006).

If it is indeed the case that television crime dramas influence jury decisions, there are a number of ways in which this bias might manifest itself. However, based on the research to date, it seems unlikely that crime dramas will generally *cause* jurors to acquit in criminal trials (the conclusion so often reported in the news media). Indeed, our research suggests that people who watch *CSI* judge forensic evidence to be *more* reliable and accurate, and therefore they may be

more likely to convict if that evidence is present. We have shown that people who watch *CSI* have significantly more positive views of forensic evidence. In other words, the *CSI* effect may result in a pro-prosecution bias when the expected evidence is presented at trial, and a pro-defence bias if the expected evidence is not available.

In closing, the research evidence suggests that the *CSI* effect may exhibit itself in somewhat different forms than what is typically discussed in the media. The results of the studies we presented here indicate that shows like *CSI* and *Law & Order* are related to people's judgments of forensic evidence. Specifically, watching these shows tends to produce more positive opinions about scientific evidence but not more traditional types of evidence (such as eyewitness and confession evidence). It is clear that more research is needed in order to fully understand the extent to which television crime dramas such as *CSI* are influencing public expectations about the legal system, the police and their investigative procedures, trial outcomes, and, by extension, Canadian society.

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