ABSTRACT. The “CSI effect” is a term that legal authorities and the mass media have coined to describe a supposed influence that watching the television show *CSI: Crime Scene Investigation* has on juror behavior. Some have claimed that jurors who see the high-quality forensic evidence presented on *CSI* raise their standards in real trials, in which actual evidence is typically more flawed and uncertain. As a result, these *CSI*-affected jurors are alleged to acquit defendants more frequently. This Review argues that, while some existing evidence on juror decisionmaking is consistent with the *CSI* effect, it is equally plausible that watching *CSI* has the opposite impact on jurors and increases their tendency to convict. The perceived rise in acquittals can also plausibly be explained without any reference either to watching *CSI* or to viewing crime dramas more generally. For these reasons, and because no direct research supports the existence or delineates the nature of the *CSI* effect, calls for changes to the legal system are premature. More generally, the issues raised by current attention to the *CSI* effect illustrate the problems that arise when proposed changes in the legal system are supported by plausible, but empirically untested, “factual” assertions.

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INTRODUCTION

The television drama CSI: Crime Scene Investigation is by all conventional measures a successful production. It receives high ratings and has spun off a lucrative franchise of related dramas—CSI: Miami and CSI: New York.\(^1\) As their titles indicate, these shows are based on the process of gathering and analyzing forensic evidence. Most episodes, however, focus on forensic techniques that are more reminiscent of science fiction than true investigative practice.

To understand the CSI series, consider a typical plot, which relates the intertwined stories of three criminal investigations. As the episode Iced begins, investigators encounter (1) a college-aged couple found dead amid evidence of a romantic evening; (2) a middle-aged man found dead in a parking lot; and (3) a man found dead in the middle of a crop circle. Through careful examination and testing of evidence—or at least as much as can be shown in an hour—the CSI team establishes that (1) the couple was poisoned by a jealous female student (a science major) using carbon dioxide gas given off by hidden dry ice; (2) the middle-aged man died of natural causes (but his body was briefly stolen as part of a prank); and (3) the man from the crop circle was frightened to death after being misled into thinking that he was being pushed out of a helicopter one thousand feet in the air.\(^2\)

Recently, the series has become the focus of increased media attention, with magazines and newspapers speculating that the series has produced a “CSI effect” among the general public.\(^3\) According to media reports, the millions of people who watch the series develop unrealistic expectations about the type of evidence typically available during trials, which, in turn, increases the likelihood that they will have a “reasonable doubt” about a defendant’s guilt. Typical of mass media articles on this topic is The CSI Effect, a cover story in U.S. News and World Report from April 2005.\(^4\) The cover foreshadows the

1. Bill Keveney, Crime Pays for ‘CSI’ Franchise, USA TODAY, Sept. 16, 2004, at 1D.
4. Roane, supra note 3.
article's thesis by promising to explain "[h]ow TV is driving jury verdicts all across America." According to the article, anecdotal evidence—based on comments by legal authorities—suggests that juries are becoming less willing to accept typical criminal trial evidence due to an instinct, derived from watching television dramas, that such evidence should be more conclusive. In reality, the kind of "smoking gun" evidence found on CSI is rarely available. Typically, the state attempts to bear its burden by piecing together many types of evidence, each having some probative value but also carrying a degree of uncertainty and, potentially, error. According to the popular press, this makes jurors less likely to convict.

For example, after the recent, well-publicized acquittal of Robert Blake, jurors complained about the lack of fingerprints, DNA, and gunshot residue—evidence not often available in criminal trials but frequently used on television. Similarly, an article in USA Today linked the acquittal of Robert Durst, who was accused of murdering and dismembering a neighbor, to the CSI effect: "To legal analysts, his case seemed an example of how shows such as CSI are affecting action in courthouses across the USA by, among other things, raising jurors' expectations of what prosecutors should produce at trial."

While the CSI effect has been widely noted in the popular press, there is little objective evidence demonstrating that the effect exists. As is often the case with legal issues, the pace of public discussion has outstripped the ability of scholars to research the issue. Lacking any empirical data, discussions of the CSI effect have instead been based upon the personal impressions of lawyers and legal scholars. The argument that CSI has influenced jurors fits with many people's intuitions—including those of judges and prosecutors—about how jurors operate. In one study, interviews with over one hundred prosecutors suggested that the CSI effect may "have made juries more demanding of the

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7. The rapid development of widely held views about the changing nature of litigation is not new. After the O.J. Simpson verdict in Los Angeles and the mistrial of the Menendez brothers, the media discussed the idea of juries becoming increasingly "acquittal prone." Yet when social scientists looked at acquittal rates in federal trials and across five states, they did not find statistical evidence to support this widely assumed "fact." See Neil Vidmar et al., Should We Rush To Reform the Criminal Jury?: Consider Conviction Rate Data, 80 JUDICATURE 286, 287-89 (1997). This example illustrates potential problems that can arise when legal changes are based upon opinions, even if widely held, that are later found to be unsupported by data.
prosecutors and the police," an argument also supported by the accounts of
jury deliberations gathered by some investigators. Further, many prosecutors
are seeking training in the presentation of evidence because they believe that
juries demand more compelling discussions of scientific techniques. According
to one report, "[a]s more juries watch forensic-based crime programs like 'CSI'
on TV, lawyers also find the need to better explain to juries the realities and
limitations of forensic evidence." In sum, "[j]urors schooled in crime
investigations through watching TV dramas expect prosecutors to show them
sophisticated forensic evidence . . . making it tough for the government to
prove cases."

This account is not universally accepted, and some have argued
passionately that the CSI effect is imaginary. As one commentary has
suggested:

To argue that "C.S.I." and similar shows are actually raising the
number of acquittals is a staggering claim, and the remarkable thing is
that, speaking forensically, there is not a shred of evidence to back it up.
There is a robust field of research on jury decision-making but no study
finding any "C.S.I. effect."

In other words, there is no direct research evidence that watching CSI has
changed juror standards of reasonable doubt. And even "[p]rosecutors are
split as to whether there is a CSI Effect."

PROSECUTOR, Mar./Apr. 2004, at 9, 10 (quoting a prosecutor); see also News Release,
Andrew P. Thomas, Maricopa County Attorney, Maricopa County Attorney Confirms “CSI
Effect” Among Local Juries: Asks Network Executives To Use Disclaimer During Broadcasts
(June 30, 2005), http://www.maricopacountyattorney.org/Press/PDF/CSI.pdf. The latter
study is typical of "research" in this area in that it establishes the existence of the CSI effect
by asking prosecutors whether or not they have observed such an effect influencing jurors.
Because the prosecutors cannot step into the minds of jurors and are not conducting
experimental studies that vary exposure to CSI, their opinions are, basically, opinions.

9. See Smardz, supra note 5.

10. Tom McCann, Criminal Lawyers Learn Latest in Forensic Sciences: NU Course Is Oldest CLE in

11. Martha Graybow, Prosecutors See 'CSI Effect' in White-Collar Cases, REUTERS, Sept. 24, 2005,

W13.

13. Psychologists have discussed the complexity of defining the “beyond a reasonable doubt”
standard. See Irwin A. Horowitz, Reasonable Doubt Instructions: Commonsense Justice and
The lack of research on the CSI effect does not mean that its basic premise—that media depictions of law shape jurors' judgments in real cases—is new. For example, reacting to earlier television series such as The People's Court, researchers argued in 1989 that the media distorted juror reactions to real trials, with Judge Joseph A. Wapner's quick legal fixes purportedly leaving real jurors frustrated by the realities of lengthy trials and their nuanced decisions. These early studies, however, focused on the influence of media presentations of trial procedures rather than the investigatory process.

This Review assesses the CSI effect from a psychological perspective by reviewing a series of studies of juror behavior. The aim is not to settle the debate by presenting empirical evidence showing that the CSI effect does or does not occur. Rather the goal is to show that the media's quick conclusion that there is a CSI effect may be wrong. In so doing, this Review hypothesizes other effects that CSI may have on jurors and evaluates alternate explanations for the perceived increase in jury acquittals that has been attributed to the CSI effect.

Part I argues that the existence of an effect linking CSI to juror judgments is initially plausible and consistent with the findings of empirical research in legal psychology. Part II disputes the conventional wisdom that exposure to CSI raises jurors' standards for conviction. This Part suggests that it is equally plausible that the CSI effect will be found to lower standards by creating a mystification of scientific evidence, leading jurors to ignore or minimize the limits in the data they see. Part III then identifies other plausible explanations for increases in jury acquittals—if such increases have in fact occurred.

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14. Cather, supra note 8, at 9. One interview led to this conclusion: “'Regarding the question of the impact on juries resulting from forensic TV shows, we are seeing no impact,' says Elaine Leschot, a supervising prosecutor in Monmouth, New Jersey, who oversees 18 trial lawyers assigned to seven courts. 'Juries are returning verdicts based on evidence in court with the same consistency seen before these shows began.'” Id. at 9-10.


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I. THE PLAUSIBILITY OF THE CSI EFFECT

Although there is not yet direct evidence on the CSI effect, research exists on several related questions. By looking at these existing literatures, we can begin to determine whether the CSI effect is at least plausible. Section A suggests that juror judgments are influenced both by general exposure to similar cases in the media and by pretrial publicity about the particular case at issue. Section B suggests that people have difficulty putting aside these influences even when asked to do so. This is especially important given that studies of jury deliberations indicate that jurors often discuss legally irrelevant information. Taken together, these findings indicate that future empirical research may find that some kind of CSI effect exists.

A. Are People Influenced by the Mass Media?

If people's reactions to crime and criminals are generally shaped by the mass media, then it seems reasonable to assume that public reactions to criminal cases are shaped by shows like CSI. The psychological literature in this area considers whether media exposure is generally important, as well as whether pretrial publicity about a specific case or type of case shapes juror judgments. Although this Review focuses on juror judgments specifically, most media studies consider the influence of the mass media on broader issues, such as fear of crime\(^1\) and perception of the seriousness of the crime problem.\(^2\) For this reason, the following discussion focuses on one small subset of studies—those on pretrial publicity—within the larger literature on the effects of the mass media on the legal system.

Studies on the influence of pretrial publicity have focused on juror judgments about particular defendants. In such studies, the simulated pretrial publicity involves either giving jurors\(^3\) information about the particular case

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17. Linda Heath & Kevin Gilbert, Mass Media and Fear of Crime, 39 AM. BEHAV. SCIENTIST 379 (1996) (demonstrating that mass media reports about crime rate are linked to fear of crime).
19. While those involved in the studies were acting as jurors to make legal decisions, it is important to remember that those involved knew that they were not involved in actual trials and were not making real decisions. Further, in some studies the participants were college students, who do not have the demographic characteristics of typical jurors. For these reasons, it is important to view the findings with caution. See Nancy Mehrkins Steblay et al.,
before them or exposing jurors to biasing information about a particular type of crime, in the form of mass media reporting on that type of crime, before they hear a specific case. In each of these scenarios, the basic proposition being tested is whether prior biases will shape jurors’ decisions.

One review of the literature in this area considered forty-four tests of whether pretrial publicity shapes verdicts. It found that participants exposed to negative pretrial publicity were significantly more likely to find a defendant guilty than were those exposed to either positive pretrial publicity or no pretrial publicity. This effect was stronger when studies were conducted on a representative sample of potential jurors, rather than students, and when the pretrial information involved was about the particular case or defendant, rather than about the type of crime involved in a later trial. Overall, the literature supports the argument that pretrial publicity shapes verdicts.

A second generation of research in this area has focused on understanding more precisely how pretrial publicity shapes verdicts. These studies directly address the key concern underlying the discussion of the CSI effect in the popular press—that media exposure shapes the threshold of reasonable doubt and, through that mechanism, changes verdicts.

An experimental study by Margaret Bull Kovera directly addresses this issue. She found that media exposure to general information about rape altered the standards that study participants used to determine guilt in a particular rape case presented to them later. In one experiment, Kovera showed undergraduates a videotaped news story on rape. The tape was edited to present various perspectives on rape that were pro-defense for some subjects, and pro-prosecution for others. Following their videotape viewing, the subjects

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20. Id. passim.


22. This conclusion is consistent with that of an earlier review. See Christina A. Studebaker & Steven D. Penrod, Pretrial Publicity: The Media, the Law, and Common Sense, 3 PSYCHOL. PUB. POL’Y & L. 428 (1997). Recent research also extends this finding to civil cases. See Jennifer K. Robbennolt & Christina A. Studebaker, News Media Reporting on Civil Litigation and Its Influence on Civil Justice Decision Making, 27 LAW & HUM. BEHAV. 5 (2003).


were asked to list what evidence they would need to convict a defendant of rape. The results indicated that prior exposure to the media presentation altered the type of evidence that participants indicated they would find plausible as an indicator of a defendant's guilt. Specifically, those who saw a pro-defense video were less concerned about having evidence concerning complainant credibility but required more inculpatory evidence to convict.25

Watching CSI may have a similar effect. The investigators on CSI are the heroes of the show and, as a rule, are deeply skeptical of civilians. Perhaps as a result of the need to manufacture drama on a weekly basis, the show's plot twists often involve apparent victims who turn out to be the actual killers, alongside red herrings—those who confess despite their innocence, usually to save another. The upshot of all this is that the investigators of CSI appear to place next to no faith in the credibility of the ordinary people with whom they talk. Rather than carefully weigh credibility, the investigators often seem to ignore the problem of determining whether or not someone is lying by instead going after "real" evidence, like microfibers.

An example of the difficulty of assessing credibility in the high-strung world of CSI appears in the episode Harvest, in which the CSI crew encounters the twisted Perez family. The family's twenty-year-old son, Daniel, is dying from leukemia. His youngest sister, Alicia, disappears; the middle sister, April, tells the investigators that little Alicia was abducted. But after Alicia's body is found, scientific analysis shows that April must have been lying: Alicia was dead before April claimed to have seen her kidnapped. Suspicion then falls on the Perez parents, who—hospital records reveal—genetically engineered their youngest daughter in order to harvest her body for organs, bone marrow, and stem cells that would keep Daniel's leukemia at bay. Captain Brass, the gruff leader of the group, grills Carlos Perez, the father, in the CSI investigation room:

BRASS: I don't get you, man. I mean, even if you could explain it, I would never understand how you could stuff your daughter in the trunk of your car and dump her body in the woods!

CARLOS PEREZ: I had to protect my family.

BRASS: Wasn't Alicia part of your family? You're her father, you dumb bastard! You're supposed to protect her. What kind of man are you?

25. Id. at 51-55.
CARLOS PEREZ: Guilty.

But although Carlos Perez did dump Alicia's body—we know this because fibers and footprints tie him to the crime scene—the real killer is Daniel, who ground poison into Alicia's milk to put her out of her misery.26

In a second study conducted by Kovera, participants were again exposed to news stories with differing perspectives about rape. Participants then watched a videotaped simulation of an acquaintance rape trial and completed a questionnaire. As in study one, the goal was to examine whether pretrial publicity altered the standards used by jurors to judge a defendant's guilt. The study found that prior publicity affected the salience of judgments about the defendant's credibility.27 Kovera found that the news stories showed to the participants—whether they were pro-victim or pro-defendant—increased the predictive power of the defendant's credibility on the outcome of the case.28 As in Kovera's first study, prior media exposure shaped the manner in which participants thought about a particular subsequent case.29 In this study, a more complex pattern of results emerged, showing interaction effects with subjects' prior attitudes about rape.30 Nevertheless, the nature of the prior media exposure changed the way that participants reasoned as they reached their verdict in the case.31

28. Id. at 67.
29. These studies are not direct analogues of real world situations. For example, they typically expose people to media stories shortly before their trial decisions, while in reality there may be considerable time delays.
31. In examining the literature on pretrial publicity, the goal has been to determine whether or not media exposure shapes subsequent verdicts. The literature suggests that it does. Fulero summarized: "Pretrial publicity has damaging effects on potential jurors; jurors exposed to pretrial publicity render guilty verdicts more often than those not so exposed. This has been found both with simulated jurors, and in real cases." Solomon M. Fulero, Afterword: The Past, Present, and Future of Applied Pretrial Publicity Research, 26 LAW & HUM. BEHAV. 127, 127 (2002) (citations omitted). Although this effect is widely found, the argument that it occurs because jurors change their standards of guilt is supported by a much smaller body of research.
These studies suffer from the limitations of the experimental approach and may not reflect the complexity or richness of real trials. Significantly, however, psychologists have recently had the opportunity to observe actual jury deliberations in both criminal and civil cases in various jurisdictions. This has allowed them to examine directly whether jurors discuss forbidden topics—such as the sort of outside information reflected in the media—when making their decisions. Their findings suggest that jurors do bring information from outside the trial into their deliberations. As an example, although rules of evidence preclude the introduction of evidence about insurance, one study found that eighty-five percent of juries discussed the issue of insurance and its impact on the outcome. Although such information is not the primary factor shaping juror decisions, it does have a discernable influence.

B. Can People Put Aside Their Preconceptions?

Preconceptions are only a problem if jurors are unable to set them aside. A second literature examines this capacity. If jurors can clear their minds, then the biasing influences of watching CSI could be counteracted merely by a judge urging jurors to set aside any information they had learned from watching crime shows on television.

Psychologists have studied jurors’ ability to disregard information by evaluating their reactions to inadmissible evidence. When a judge tells a jury, for example, that it should “disregard the witness’s last statement,” she is relying upon an ability to compartmentalize information to keep it from influencing judgments. The degree to which jurors are able to do this speaks to the consciousness of decisionmaking. If decisions are influenced by factors that people are not aware of, or if jurors cannot control the influence of different factors on their judgments, then decisionmaking is outside of conscious control. If that is the case, then jurors cannot put aside information simply because they are asked to do so by a judge.

32. Neil Vidmar, for example, has identified four types of prejudice that are important in actual civil and criminal trials. See Neil Vidmar, Case Studies of Pre- and Midtrial Prejudice in Criminal and Civil Litigation, 26 LAW & HUM. BEHAV. 73, 75-82 (2002).
34. Id. at 1876.
35. See Vidmar, supra note 32, at 81, 91-92.
Studies by psychologists have repeatedly shown that admonitions to disregard inadmissible evidence are ineffective. In one such study, participants were exposed to pretrial publicity that was either damaging to the defendant or irrelevant. The damaging publicity was found to increase the perceived strength of the prosecution case and the likelihood of a guilty verdict. The effect was the same when participants were admonished to ignore the pretrial publicity. A later study obtained similar results. While admonitions to ignore the evidence have not been found to be effective, one study did conclude that if suspicion is cast on the motivation of the source of the information, inadmissible information has less impact.

Some studies have found that calling attention to inadmissible evidence actually increases the influence that evidence has on jurors. This effect might occur because jurors resent having their impartiality called into question, or it may be that making a particular type of information the focus of attention heightens its role in decisionmaking. Like the CSI effect itself, this argument suggests that when an issue—such as the probative value of evidence—is made salient, the importance of that issue in decisionmaking is increased.

It is not clear whether these effects reflect jurors affirmatively disobeying instructions or merely being unable to set aside personal biases. This distinction is important because if jurors are capable of ignoring inadmissible evidence but simply choose not to, then more effective jury instructions could correct these biases. But if the use of outside influences is reflexive and unconscious, then juror training would require new advances in psychological control. In the latter case, the simplest solution would be to attempt to shield potential jurors from exposure to inadmissible information in the first place.

Research in this area also shows that the verdicts of jurors who claim to be unbiased during voir dire are still influenced by prior bias. In fact, asking jurors about particular views prior to trial is sometimes found to increase the

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influence of related pretrial publicity. Although none of these studies has specifically addressed CSI, this literature calls into question a supposed prosecutorial strategy for overcoming the CSI effect: quizzing jurors about whether they watch CSI and whether it might bias their decisionmaking.

Along with the jury, the other relevant decisionmaker in legal settings is the judge. It is equally important, therefore, to ask if judges can put aside inadmissible information. This issue has been addressed recently in a series of scenario studies using judges as the participants. The studies found that judges had difficulty disregarding a variety of types of inadmissible evidence. While “judges displayed a surprising ability to [ignore inadmissible evidence] in some situations,” including failures to provide defendants with appropriate counsel or to follow appropriate legal procedures, they were influenced by evidence such as the sexual history of a person in a rape trial. The fact that judges can ignore irrelevant information when they desire suggests that when judges do not ignore inadmissible information, the reason is that they choose not to. Or it may be that the information is so salient in certain situations that judges find themselves unable to ignore it.

From the perspective of the CSI effect, these research findings on inadmissible evidence reinforce those already outlined in the discussion of pretrial publicity. They suggest that the influence of viewing mass media depictions of the criminal and civil justice systems on later decisionmaking during trials may persist even when the legal system makes efforts to limit that influence, either by questioning potential jurors prior to the trial or by admonishing jurors not to take account of these influences when making decisions.

The most salient feature of CSI is that it is a fictional depiction of crime. The mass media literature has argued that people generally have difficulty distinguishing between various aspects of the mass media, often confusing entertainment, news, and commercials. More specifically, people fail to discount fictional dramatizations of crime when making legal judgments.

41. See Steblay et al., supra note 19, at 224 tbl.2.
43. Id. at 1251–52.
This is not unique to mass media presentations, because people generally have a problem correctly recalling the source of a particular piece of information.\textsuperscript{46} Still, the implication is clear: Fictional depictions of crime and the criminal justice process can and do spill over to shape public views about the nature of crime and criminals.

\section*{II. Other Possible CSI Effects}

The evidence presented thus far is consistent with the claim that watching programs such as \textit{CSI} affects juror decisionmaking, potentially by altering standards of reasonable doubt. But the existing research does not provide a framework for understanding this effect, or for understanding how the \textit{CSI} effect interacts with the other potential influences of mass media.

This Part suggests that it is equally plausible to hypothesize the opposite of the \textit{CSI} effect—that is, that \textit{CSI} potentially lowers the standards used by jurors, making conviction more likely, rather than less. The argument is that jurors want to resolve the tensions associated with an uncorrected injustice, and that tension is best resolved by a conviction. Thus, jurors are motivated to search for and find arguments that will legitimize their desires to convict. We know that jurors overweight the probative value of science, putting greater weight on such evidence than its statistical value warrants. \textit{CSI}'s presentation of science encourages this mystification and may, therefore, lead juries to accord inflated probative value to the evidence they see in trials. Jurors would then rely on that evidence to justify convictions.

In cases not involving scientific evidence, it may be more difficult for jurors to justify their motivation to convict. Justification requires both the desire to justify and the availability of some plausible and legitimate reason for making the desired decision. The credibility of scientific evidence is one such legitimating tool, but it is not the only possible way to justify a decision. As an example, jurors may enhance the perceived credibility of eyewitness testimony as a way of justifying a conviction.

\textsuperscript{46} Psychologists have identified source confusion as an issue whenever people are making judgments about complex events, with people having difficulty correctly remembering where information was originally experienced. For a discussion of this issue, see Karen J. Mitchell & Marcia K. Johnson, \textit{Source Monitoring: Attributing Mental Experiences}, in \textit{The Oxford Handbook of Memory} 179 (Endel Tulving & Fergus I.M. Craik eds., 2000).
A. Promoting the Need for Closure

In modern societies, the responsibility for restoring the moral balance following rule-breaking rests with the state, because the state claims a monopoly on the use of coercion. But the legal system must confront two interrelated objectives: truth and justice. Truth is a prerequisite for justice; without knowing the facts of the case it is impossible to determine whether justice has been done. The search for truth involves both identifying the guilty party and determining what actually happened so that the appropriate level of punishment can occur.

When it is uncertain or unknown who has caused harm, people seek the closure that comes from seeing the guilty party identified and punished, but they lack the ability to take actions that satisfy this desire. This frustration is most palpable when perpetrators are never identified, but even lingering doubts about whether justice has been served trigger this sentiment. In reality, truth is seldom certain. As recent high-profile criminal trials make clear, the evidence available at trial can rarely put to rest all doubt as to the guilt or innocence of a defendant. Smoking guns are typically elusive at trials, which are more often characterized by collections of contradictory assertions and fallible evidence. We can never know for certain whether O.J. Simpson, Robert Blake, and Scott Peterson killed their wives, whether Michael Jackson molested children, or whether Martha Stewart and Kenneth Lay deliberately deceived others. This uncertainty about the truth makes it more difficult to achieve justice in a psychologically satisfactory manner.47 Both decisionmakers and the general public are left with a sense of unease and lack of completeness, as crimes are unsolved and uncertainty remains.48

In terms of resolving uncertainty, then, guilty and not-guilty verdicts are not equivalent. A guilty verdict identifies someone responsible for a crime and provides a sense of psychological completeness and closure. A not-guilty verdict prevents an injustice to a potentially innocent person but does nothing to resolve the psychological desire to see justice done, either for the victim or the population at large. Finally, irrespective of the verdict they render, jurors often remain uncertain about their decision, leaving any verdict shrouded in a mist of doubt.

The popularity of CSI lies in its ability to simplify the messy uncertainties of real-world crime. CSI's plots are consistent with the strong psychological need to achieve closure following the commission of a crime. Indeed, CSI occasionally dramatizes the crimes that captivate Americans. In an episode of CSI: Miami, the plot closely traced the real-life story of Natalee Holloway, an American teenager who disappeared on a trip to Aruba. Although the Holloway case has been characterized by public frustration over the inability to find out what happened, the CSI: Miami forensic team was able to crack the case with conclusive evidence by the end of the hour. When the body of the victim was found, a sperm sample led investigators to her attacker.

Identifying the assailant and seeing him punished is psychologically reassuring, and a drama that raises tension with crime and relieves that tension with inevitable apprehension and punishment fills important psychological needs for its viewers. Media studies show empirically that the enjoyment of audiences watching a fictional portrayal of a crime is linked to the degree to which they see appropriate moral sanctions being delivered to wrongdoers. This presentation creates and then dispels the tension associated with the threat to the social order and community values that is created by wrongdoing. By seeing the wrongdoer identified and punished, the community is reassured that those who commit wrongs and are deserving of punishment get their just deserts.

The best evidence that people have a psychological need to see a completed cycle of punishment following the commission of a crime is provided by recent research on how people feel after viewing crime. One study, for example, stimulated anger among experimental participants by showing video clips of a crime. The video clip was of an act of senseless wrongdoing—a man beating up a helpless teenager. Those who watched the video clip were then given one of three possible outcomes. They were told either that (1) the man was

53. Hogan & Emler, supra note 48; see also TOM R. TYLER ET AL., SOCIAL JUSTICE IN A DIVERSE SOCIETY 103-32 (1997) (discussing the psychological need to see rule-breakers punished).
punished; (2) the man escaped punishment; or (3) no information on the man's fate was known. The study showed that people who did not have the psychological sense of completion associated with being told the man was punished would still feel anger and would carry that anger forward to a seemingly unrelated task.

In this study, the seemingly unrelated task was reading about cases depicting acts of negligence or recklessness and being asked to assess responsibility, blame, and punishment. The analysis indicated that when participants felt anger over the previously viewed injustice, and when they lacked the psychological completeness of knowing that the original harmdoer was punished, they were more punitive after reading the subsequent vignettes and punished the subsequent wrongdoers more harshly. This carryover effect did not occur when participants were told that the initial perpetrator was punished or when his fate was ambiguous.55

No effect was observed among the participants whose anger was not aroused by the original incident. As we would anticipate, however, that group was quite small. This is consistent with the argument that people are upset when wrongdoing is unaccompanied by punishment of the wrongdoer, and they therefore seek the psychological satisfaction of seeing the offender punished.

Psychologists argue that there is a fundamental human motivation to see justice done, referred to as "the belief in a just world."56 Put simply, people need to believe that the world is a just place in which individuals get what they deserve, and so they respond to wrongs by doing everything they can to procure an appropriate remedy. If this hypothesis is correct, it is particularly significant for our understanding of the CSI effect. Just as CSI is popular, at least in part, because it satisfies our longing to see justice prevail in social relations, these instincts may motivate jurors to try to resolve the cases before them by identifying the perpetrator and bringing him to justice. Achieving the finality of conviction is surely the most psychologically satisfying resolution because an acquittal leaves the crime unsolved.57 While there is a cognitive

55. Because those who receive no information about the fate of the perpetrator also lack completion, it is unclear why they do not show this effect. It seems likely that being directly confronted with an unpunished wrongdoer is the most upsetting condition, as injustice is then highly salient.


57. CSI further satisfies the desire of viewers for psychological reassurance by using flashbacks that show them the actual commission of the crime, presented in an altered visual frame.
motivation to acquit the innocent, the emotional need to achieve justice for the victim is incomplete until someone is identified and punished for the crime.\textsuperscript{58}

As portrayed by the media, the CSI effect causes jurors to maintain high standards for assessing reasonable doubt. From a psychological perspective, this reasoning is suspect because it runs contrary to the motivation that leads people to watch CSI—the desire to see enactments of certain truth and justice. Fiction, like CSI, is reassuring because it takes viewers to a place where wrongs are righted and those who break rules are punished. But if viewers respond to this stimulus by raising the bar and acquitting the wrongdoers, then reality fails to match fiction. There is no closure, no feeling that justice has been restored.

The desire for retribution following wrongdoing is the oldest form of justice and is central to all societies. In his examination of justice, Neil Vidmar commented: "Retribution and revenge, two highly related concepts, are arguably the oldest, most basic, and most pervasive justice reactions associated with human social life."\textsuperscript{59} Why is the desire to punish so strong? When someone breaks social rules, he undermines the established social and moral order. His actions both cause injury and lower the status of victims, and social mechanisms are needed to reestablish that order. One such mechanism is punishment of the wrongdoer, which both lowers his status and restores that of the victim. Without such punishment, the victim, her family, and others in the community do not feel that the social world has been put right, thereby perpetuating social consequences of the crime.\textsuperscript{60}

Because of the strong psychological need to punish wrongdoing, the typical problem that societies face is the lowering of standards of truth in the interest of achieving justice. People are often found to suspend the normal factfinding process associated with punishing wrongdoers—the process of clearly identifying the perpetrator of the harm. Vigilante mobs and kangaroo courts rush to satisfy the desire to punish, ignoring the legal procedures for establishing the actual guilt or innocence of the defendant. When the desire to punish is sufficiently strong, standards of truth are compromised and may even be completely ignored. The strength of this desire is reflected both in the


\textsuperscript{60} There is a large legal literature on the desire to punish. See \textit{id.} at 54-56.
lengths to which people are willing to go to find those they view as responsible for wrongdoing and in the severity of the punishments they often mete out to them.

The actions of vigilante mobs point to a fundamental truth about human nature: The desire to punish, and to restore the status of victims and the legitimacy of rules, is frustrated by the uncertainty that often exists about who is responsible for harm. Furthermore, when that frustration is strong, the search for truth suffers. Those emotionally enraged by a crime seek a way to resolve their feelings, and they may do so by lowering their standards of proof out of a need to have a person to hold responsible and punish for a crime.61

In other words, if people are motivated by watching CSI to hold higher standards of reasonable doubt, this outcome would fly in the face of the typically strong desire to see wrongdoers punished.

B. Overbelief in the Probative Value of Evidence

Might CSI motivate jurors to exaggerate the probative value of the scientific evidence presented to them? There is widespread evidence indicating that people already overestimate the probative value of scientific evidence. Given the general lack of connection between actual and perceived probative value, it is not difficult to imagine that perceived probative value shifts in response to jurors' psychological desires and needs. The effect may be unconscious.

Psychologists writing about scientific evidence in trials make the point that the existence of error itself is not necessarily a problem, because factfinders—whether the jury or the judge—can adjust for it when they make decisions. For example, a witness testifies that he recognizes the offender as the person who robbed him at gunpoint. Through skillful cross-examination, the lawyer for the defense may establish that it was dark in the alley and that the witness was drunk, nearsighted, and not wearing his glasses.62 All of these factors speak to the accuracy of the witness, and it is assumed that the factfinder discounts the

61. For a discussion of retributive justice, see TYLER ET AL., supra note 53, at 103-32.
testimony to the extent of its doubted validity. Hence, in theory, the legal system takes account of unreliability.

The problem with this method of managing uncertainty in legal settings arises when judges or juries are unable to properly assess the validity of evidence. This failing is widely recognized in studies of eyewitness identification, in which psychologists have established that jurors overestimate the accuracy of eyewitness identification. For example, in one study, John Brigham and Robert Bothwell described crime settings to potential jurors and asked them how likely it was that others could accurately identify a criminal they viewed in a lineup. Over two scenarios, the Brigham and Bothwell subjects predicted that the correct suspects would be identified 63.5% of the time. However, in the original studies in which subjects performed this identification task, the true accuracy rate was a meager 25.4%. This illustrates the general tendency to view evidence as more probative than it actually is; it reveals the occurrence of overbelief. Overbelief facilitates the ability to act on the desire to convict by providing plausible evidence of guilt and thus legitimates a guilty verdict.

The conditions under which this general overbelief effect is strong and weak, outlined by Gary Wells and Elizabeth Olson, are also consistent with the argument presented here. Overbelief is most likely to be found when eyewitnesses are more likely to be inaccurate. Similarly, the motivation to distort evidence and create confidence in one's verdict would be strongest when jurors are faced with weak evidence such as an eyewitness with low credibility. If the jurors want to convict and have strong evidence, they face no psychological conflict. However, if they want to convict but the evidence is weak, they are motivated to distort the evidence by seeing it as more probative than it actually is. And, it is in fact when evidence is weak that the overbelief effect is found.

63. But see Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993) (limiting the presentation of expert witness testimony to juries when the reliability of the expert's testimony cannot be confirmed).
65. Id. at 25 fig.1.
The fact that people do overestimate the probative value of scientific evidence does not, in and of itself, show that they are motivated to distort the probative value of evidence. However, the finding that people overestimate the accuracy of evidence is consistent with the psychological argument that people's reaction to harm and the need to resolve harm are motivated, in part, by their desire to see justice done. In order to fulfill their need for certainty and closure, people need to be comfortable that they have identified the guilty party and that he has been appropriately punished.

If people were simply poor at assessing the true state of the world, we would expect many mistaken estimates—some overestimates and some underestimates. Instead we see a consistent tendency to overestimate accuracy. This is true not only with eyewitness identification. Jurors also overestimate other types of scientific evidence, ranging from the accuracy of lie detector evidence and the “repressed” memories of childhood abuse recalled by adults. This consistent pattern of overestimation suggests that people are not just bad at evaluating evidence but rather are motivated to see evidence as probative. This may reflect either conscious or unconscious mental processes.

It follows that when people are more highly motivated to resolve a crime and provide justice for the victim, they will also be more highly motivated to overestimate the probative value of the evidence. The desire to legitimate a desired verdict will vary depending upon the situation. When the motivation to legitimate a verdict is present, however, one way to effectively justify the verdict is to view the evidence as strong. The motivation to believe more strongly in the probative value of the evidence can be combined with the lowering of the threshold for conviction. Studies of the willingness to convict in death penalty cases, which will be discussed later in this Review, provide direct evidence of such a lowering. And, of course, Section I.A described how pretrial publicity can lead to the lowering of standards. Here, the key argument is that jurors can also legitimate their verdict by raising their assessment of the quality of the evidence.

How does this connect to CSI? The general message of CSI is that scientific methods and evidence are legitimate and reliable. In one episode, for example, investigators perform a remarkable “reverse algorithm and enhancement” of an audiotaped ransom demand. Using a spectrograph to match the sound waves from the ransom recording to those from a different voice recording, they are able to conclusively identify the kidnapper. By isolating sound on the same tape, they are also able to determine that the victim herself was involved in

67. See infra text accompanying notes 78-79.
staging her own kidnapping. If our forensic scientists can tell that much from a single tape, what can’t they do? Thus, whereas media reports argue that CSI standards make real trial evidence look bad, it is also possible that the portrayal of science as the ultimate crime-fighting tool actually encourages the already existing overbelief in the value of the flawed scientific findings that jurors confront in actual trials. People are already motivated to find ways to legitimate or justify their desire to convict. Science provides one way to do so, causing people to see within scientific evidence the level of certainty that makes them comfortable with a guilty verdict. Here, it is the credibility of science that is crucial, because jurors seek a form of justification that is plausible and compelling to bolster their own desire for certainty.

Surveys demonstrate that science can be particularly effective in legitimating legal outcomes. Consider the results of the 1998 General Social Survey, a national sample conducted by the National Opinion Research Center. In that survey, nineteen percent of Americans expressed at least “a great deal of confidence” in courts and the legal system; ten percent expressed a great deal of confidence in the people running television; and nine percent expressed a great deal of confidence in the people running the press. In this case, neither

70. Psychologists have established that people are more likely to engage in distortions when they have a compelling justification that they can invoke to justify such distortions. For a review of the literature on psychological rationalization, see TYLER ET AL., supra note 53, at 135-52.
the legal system nor television is an institution in which the public places generally high confidence. However, the same study found that forty percent of Americans expressed a great deal of confidence in the scientific community.  

The linkage of evidence to science, then, enhances verdict legitimacy. Although people could legitimize their conclusions in any number of ways, viewing scientific evidence as conclusive is an obvious approach. CSI fosters this aura by encouraging a myth of forensic and scientific infallibility.

The effort to validate legal decisions by reference to science and the rationality of scientific processes is not new. The use of quantification and scientific methodology to provide support for the decisions of all types of societal authorities reflects the desire to cast the aura of certainty onto arenas in which decisions are often made in highly subjective ways. In a trial, for example, the “true” innocence of the defendant is typically unknown, so the legitimacy of the verdict can be established by evidence that compellingly reveals the truth, as when DNA tests are used to exonerate those wrongly accused or convicted of crimes. This need to legitimate the outcome should be stronger when people are highly motivated to resolve a crime and hold a criminal responsible.

An example of this process can be found in research on the death penalty. In capital cases, only those who might be willing to vote for the death penalty during the penalty phase of the trial are allowed to sit on a jury for the guilt-determination phase. Studies comparing two groups—those “death qualified” and those excluded by this standard—indicate that those who are willing to vote for the death penalty have a lower threshold of evidence required to vote


75. In addition, the investigators on CSI always “get their man,” which may foster an image of prosecutorial infallibility as well.


77. See SCHECK ET AL., supra note 62. But see supra note 69 (discussing the limitations of DNA and fingerprint evidence).

78. For a discussion of death qualification as a legal procedure, see Claudia L. Cowan et al., The Effects of Death Qualification on Jurors' Predisposition To Convict and on the Quality of Deliberations, 8 LAW & HUM. BEHAV. 53 (1984).
for conviction at the guilt-determination phase. This is true even though both groups evaluate the probative value of particular evidence in the same way (i.e., they view the same evidence as establishing an equal likelihood that the person on trial actually committed the crime). This suggests that prior attitudes or personality characteristics associated with support for the death penalty motivate jurors to want to resolve a crime and hold a criminal responsible. These jurors do so by having lower standards of what evidence is required to justify a verdict of guilty.

C. Creating a One-Sided View of the Law

CSI also potentially assists prosecutors by showing only the investigation and leaving the impression that the trial is a mere formality. Just as in its historical predecessors—Sherlock Holmes, The Thin Man, and Perry Mason, to name a few—the story ends in CSI when the investigator solves the mystery. The ultimate deliverance of justice is left as a foregone conclusion.

79. See id.

80. One of the most famous such mysteries is ARTHUR CONAN DOYLE, The Hound of the Baskervilles, reprinted in 2 THE COMPLETE SHERLOCK HOLMES 781 (Doubleday & Co. 1953) (1902). The scientific acuity and refined deductive reasoning of Detective Holmes were key features of these books. In many respects, these mysteries are consistent with CSI—both use refined logic and advanced forensics to solve seemingly perfect crimes.

81. DASHIELL HAMMETT, THE THIN MAN (1934). In The Thin Man series, a detective and his wife solve crimes using clever reasoning and effective interrogation. The novels were later made into films, including The Thin Man (Metro-Goldwyn-Mayer 1934).

82. Perry Mason (CBS television broadcasts 1957-1966). No episode of Perry Mason was complete without a dramatic revelation:

Mason doesn’t get his client acquitted by showing that the prosecutor failed to carry the burden of proof. Instead, he proves his client’s innocence by exposing the real killer. Surprise witnesses appear at the last minute, just before it is too late. After Mason’s cross-examination, prosecution witnesses break down on the stand. As far as we can tell, Mason has never represented a guilty client or engaged in plea bargaining.


83. A rare episode that shows a jury deliberating demonstrates how the CSI effect might work. In CSI: Crime Scene Investigation: Eleven Angry Jurors (CBS television broadcast Jan. 8, 2004) (transcript available at http://twiztv.com/scripts/csi/season4/csi-411.txt), the episode opens on a jury room in which the frustrated jurors have been sequestered for nearly three weeks. Not surprisingly, the jurors are deliberating in a murder trial. Eleven jurors are set to convict the victim’s husband on the strength of forensic evidence: His “fingerprints were all over”
In terms of psychological closure, conviction is critical. The satisfaction of knowing the criminal received his just deserts—and retributive justice has been achieved—is essential. CSI skirts the complications of achieving this end by only rarely bringing cases to trial. In fact, when confronted with the undeniable proof of their guilt, many CSI perpetrators confess, filling in any missing details. And because there is no uncertainty about who is guilty, there is no need for a trial. In the real world, however, finding the perpetrator is just one step of a long process. If one man has killed another, this does not end the inquiry. He could be guilty of first-degree murder, but the “heat of passion,” mental illness, or any number of mitigating or excusing factors would be considered in an actual trial. By focusing almost exclusively on the investigation, CSI leads its viewers to believe that finding the assailant is the only thing that matters.

the belt used to strangle her. A lone holdout insists that “the burden of proof is beyond a reasonable doubt,” and maintains that the real killer was the cable guy, who has “priors” and has “skipped town.” None of the others buy the holdout’s story. In the words of another juror, the cable guy’s “fingerprint weren’t even on the belt.” The jury never reaches a verdict—the holdout is found dead on the jury room floor, and CSI is brought in to discover whether one of the others killed him.

84. For example, in the episode Crate ’n Burial, a woman who staged her own kidnapping confesses to the crime when faced with the investigators’ audio tape algorithms. CSI: Crime Scene Investigation: Crate ’n Burial, supra note 68.

85. Although the show does a fairly good job of following the basics of criminal procedure, there is no attempt to paint courts, attorneys, or even prosecutors in a fair or balanced light. The message of CSI is clear: The legal system is an obstacle and a frustration to the investigators’ search for truth. For example, in CSI: Crime Scene Investigation: Coming of Rage (CBS television broadcast Dec. 18, 2003) (transcript available at http://twiztv.com/scripts/csi/season4/csi-410.txt), the team of investigators goes to a high school to investigate the possibility that a teenage boy who was beaten to death was killed by his classmates. Students are gathered in the gym, and the father of one child—who is an attorney—raises the issue of whether the meeting constitutes unjustified detention. He is portrayed as a strident, over-aggressive jerk who wants to set a child’s killer free:

TYLER’S DAD: You are sequestering these kids without probable cause. I hate that I’ve been called out of work to come down here, and I’m going to be so far up your ass, you’re not going to be able to sit down straight.

GRISSOM: You know what I hate? People who hurt kids. And you know who those people sometimes are?

TYLER’S DAD: Cops?
This bias has the potential to disturb the tenuous balance of justice. Jurors must grapple with two types of justice: justice for the victim and justice for the defendant. A trial often makes these targets appear mutually exclusive. There is no justice for the victim until the perpetrator has been identified and convicted. But justice for the defendant requires dedication to the truth and full consideration of the defendant’s mental state and the circumstances of any actions he may have taken.

But through whose eyes does the jury see a case—the victim’s or the defendant’s? Whose justice does the jury emphasize? This will depend on the circumstances of the case. Defense counsel strives to make the humanity of her client salient to the jury, while the prosecutor works to make the victim appear sympathetic. The two parties battle over credibility and sympathy. The defense counsel tries to parlay doubts about the victim’s honesty and a lack of sympathy for the victim’s plight into greater sympathy for the defendant. In such a case, the jury is likely focused on protecting the defendant rather than the victim.

The jury’s focus on justice for the victim can be manifested in two possible ways. First, jurors might lower their standards for what constitutes sufficient evidence to reach a guilty verdict. As discussed above, in the aftermath of particularly vicious crimes, communities often lower their standards of guilt and rapidly find someone to hold responsible for a crime. One reason that the state acts as arbiter of legal claims is to build a framework of rationality around reactions to rule-breaking that could preclude the application of reasonable standards of right and wrong. The state, however, is subject to the standard-lowering impulse as well. Prosecutors, for example, work particularly vigorously to punish criminals when a particular type of crime is viewed as out of control in the community. As the result, unfortunate citizens who commit a crime widely committed in the community may suddenly find themselves subject to intensive state prosecution. Recently, corporate leaders have been targeted for behaviors that, if not legal, were widespread within the business community.  

Second, jurors might keep the same standard but raise their estimates of the quality of the evidence that is put forward by the state. Those jurors who

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GRISSOM: Other kids. If it had been your son whose skull was smashed in with a hammer, you’d be asking me where I was when I should’ve been protecting him. Kids bring guns to school to shoot other kids, so who are you protecting?

want a victim to be vindicated may respond by perceiving the evidence as stronger. Similarly, the state, eager to find its scapegoat, may be motivated to pursue a weaker case by overestimating the evidence.

By focusing on investigations, rather than trials, CSI understates the importance of both defenses and justifications, reinforcing the focus on the victim rather than the defendant. If the focus were on the trial, we might hear about the defendant's lousy childhood, her temporary insanity, or her sincere remorse. In a real courtroom, these factors force us to address what is just for the defendant. The focus on investigation, however, draws attention to the victim of the crime.

It bears mentioning that it doesn't have to be this way. Another popular crime drama, Law & Order, depicts both investigations and trials. On Law & Order, the evidence is not presented as conclusive to the same degree, and there is uncertainty about the outcome of the trial. Further, potential defenses are dramatized. Hence, while the show certainly does not depict the workings of the legal system with complete accuracy, Law & Order presents a more realistic picture than CSI in at least two ways: It emphasizes uncertainty about the truth and shows the trial as both a search for truth and an arena in which justice—both for the victim and for the defendant—is at issue. This often brings a criminal's state of mind into play. In short, Law & Order questions whether a person is factually guilty as well as what legal responsibility she bears. The popularity of Law & Order suggests that audiences can grapple with criminal justice issues in a more complete way.

III. DOES THE CSI EFFECT EXIST?

Proponents of the CSI effect theorize that fictional depictions of forensic science lead jurors to impose higher standards of proof, resulting in more frequent acquittals. But changes in juror behavior may also reflect other factors, such as sympathy for defendants, changing views of the evidence quality, or increased mistrust of the government and the law.

To begin, we must note that the premise of the CSI effect—increasing leniency—may itself be overstated or nonexistent. In earlier eras, claims of increased juror leniency prompted research that found no evidence of any such increase. But let us assume that jurors are increasingly lenient. Why has this

87. Law & Order receives high ratings and has spun off three series: Law & Order: Special Victims Unit, Law & Order: Criminal Intent, and the now-defunct Law & Order: Trial by Jury.
88. See, e.g., Vidmar et al., supra note 7.
happened? This Part suggests three possible explanations besides the CSI effect.

A. Sympathy for the Defendant

It can never be completely clear why any jury acquits a defendant. Before the CSI effect was posited, verdicts contrary to the judge's weighting of the evidence were often ascribed to juror sympathy for the defendant. A review of the evidence on sympathy by Valerie Hans and Neil Vidmar argues that sympathy effects occur, albeit infrequently. Drawing upon the findings of Harry Kalven and Hans Zeisel, Hans and Vidmar suggest that when juries are more lenient than judges, the difference stems from sympathy approximately twenty percent of the time. They note, however, that sympathy seems most important when the evidence is equivocal, and is activated primarily when there are grounds in the evidence for having reasonable doubt. Their review suggests that when evidence is strongly against the defendant, juries tend to convict; when it is weak, they tend to acquit. But, when evidence is unclear, mixed factors such as sympathy and prejudice assume a stronger role in the decisionmaking process.

Can sympathy explain increases in acquittals? Every trial is unique, so it is difficult to know when defendants appear more or less sympathetic to juries. But there is considerable evidence that juries are increasingly willing to accept a variety of excusing conditions, ranging from post-traumatic stress disorder to battered wife syndrome. This trend may reflect increasing willingness to sympathize with the defendant and her situation.

89. The literature on sympathy is reviewed in VALERIE P. HANS & NEIL VIDMAR, JUDGING THE JURY 132-36 (1986).
91. HANS & VIDMAR, supra note 89, at 135.
92. See id. It is also important to note that in the classic research reported in The American Jury, the judge was used as an informant about the thinking of the jury. These findings indicate that, in the cases involved in the study, the judge thought that the jury was influenced by sympathy. See KALVEN & ZEISEL, supra note 90, at 85-103.
93. KALVEN & ZEISEL, supra note 90, at 115.
95. While sympathy is sometimes put forward by the press to explain verdicts, see, e.g., Carrie Johnson, Jury Acquits HealthSouth Founder of All Charges, WASH. POST, June 29, 2005, at A1;
B. Differing Thresholds for Conviction

The CSI effect is linked to the belief—typically articulated by prosecutors—that jurors acquit defendants when they should convict. An alternative explanation of these acquittals is that prosecutors make unrealistic assessments as to the strength of their cases relative to jurors' assessments. In other words, perhaps the fact to be explained when considering the CSI effect is not the reality of acquittals themselves, but the widespread evidence that these acquittals are troubling to prosecutors. It may be that the CSI effect is more a symptom of prosecutors trying to understand why their expectations are not confirmed than a reflection of actual changes in the behavior of jurors.

How might a prosecutor develop such an unrealistic assessment of the strength of her case? One possibility is that prosecutors erroneously assume that juries and judges will make similar decisions about guilt or innocence. If prosecutors share the standards of judges—either because they deal with judges every day or because they share legal training and common experience—then they would view bench verdicts as their baseline for reasonableness. And to the extent that jurors acquit where a judge would convict, jurors may seem to hold standards that are too high.

There is, in fact, evidence that judges and jurors use different standards when determining guilt and innocence. Kalven and Zeisel's classic study, *The American Jury*, found that judges have a lower conviction threshold than do juries. Recently, Theodore Eisenberg and others used a sample of three hundred trials in four locales to partially replicate the findings of Kalven and Zeisel. This later study also found juries less likely to convict than judges when reacting to the same cases. Kalven and Zeisel attribute this difference to the jurors applying a higher threshold for proof beyond reasonable doubt (rather than judges applying a lower one). Likewise, in the Eisenberg

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Ben White, *In Scrushy Trial, Jurors Chose Defense's Portrait*, WASH. POST, June 29, 2005, at D1, it may or may not be the true reason for such verdicts.

96. It is perhaps surprising that legal authorities view jurors as too lenient, as one of the primary criticisms of the criminal justice system in public opinion polls is that legal authorities are not tough enough on criminals. See JULIAN V. ROBERTS ET AL., PENAL POPULISM AND PUBLIC OPINION: LESSONS FROM FIVE COUNTRIES (2003); JULIAN V. ROBERTS & LORETTA J. STALANS, PUBLIC OPINION, CRIME, AND CRIMINAL JUSTICE 2 (1997).

97. See KALVEN & ZEISEL, supra note 90, at 58-59.

replication, the authors concluded that “juries require stronger evidence to convict than judges do.”

Where could this leniency come from? The highly salient mass media culture of crime and criminal justice is only one of many possible explanations. Jurors may be more sympathetic to the general idea that “there but for the grace of God go I,” being more able than judges to see themselves in the same situation as the defendant.

Although the inflated-expectations explanation is consistent with classic and recent findings about judge-juror differences in verdicts, it does not address the perception among prosecutors that juries are increasingly likely to acquit. Researchers have not systematically tracked the judge-jury discrepancy over time, so we do not know if the relative tendency to convict between judges and juries is constant or changing. Thus, it is impossible to determine whether this explanation is suitable for understanding the CSI effect. However, the similarity of the findings in the classic Kalven and Zeisel study and the more recent work by Eisenberg suggests constancy over time.

C. Declining Trust and Confidence in Legal Authorities

Another explanation for increasing jury acquittals, and one that is linked to change over time, is that jurors, like members of the general public, are becoming less trusting of legal authorities. Acceptance of the case put forward by the prosecution during a criminal trial is heavily dependent upon a juror’s willingness to trust the honesty and the competence of the state—including the police (who investigate crimes) and the prosecutors (who manage criminal trials). Conducting a trial is an exercise in persuasion in which the authorities need to convince the jury that someone is guilty beyond a reasonable doubt. Persuasion research indicates that people are less persuaded by others when they regard them as less competent, less trustworthy, or both. Other studies establish that trust is a central dimension against which members of the public evaluate legal authorities.

99. Id. at 189; see also Shari Seidman Diamond & Mary R. Rose, Real Juries, 1 ANN. REV. L. & SOC. Sci. 255, 266–68 (2005) (finding juries more lenient in criminal trials but not necessarily in civil trials).

100. See Richard E. Petty & Duane T. Wegener, Attitude Change: Multiple Roles for Persuasion Variables, in 1 THE HANDBOOK OF SOCIAL PSYCHOLOGY 323 (Daniel T. Gilbert et al. eds., 1998) (providing an overview of what is known about the conditions under which persuasion is effective).

Consider the O.J. Simpson case as an example of the role that trust in the prosecution plays in juror reactions to a case. During that trial, Simpson's lawyers raised doubts about the adequacy of the police investigation and the handling of police evidence. The detective in the case, Mark Fuhrman, was attacked as untrustworthy because he was alleged to have racist motives, revealed through statements made outside the courtroom and outside the context of the case. Hence, one alternative explanation for the acquittal in that trial is that the jury was suspicious of the competence and motivation of the police and the prosecution.

Statistics reported by the National Institute of Justice illustrate the public opinion background within which the legal system operates. A recent article reports that “Gallup polls over the last few years have consistently found that Americans have less confidence in the criminal justice system than in other institutions, such as banking, the medical system, public schools, television news, newspapers, big business, and organized labor.” In a 2000 Gallup poll of Americans, only twenty-three percent of whites and twenty-five percent of blacks expressed confidence in the criminal justice system. When asked about local courts, thirty-six percent of whites expressed confidence but only sixteen percent of blacks. More generally, Americans' trust in government has declined sharply since the 1960s.

Thus, people may be increasingly unwilling to convict defendants based upon a constant level of evidence presented to them by increasingly distrusted

102. For discussions of the Simpson trial, see Vincent Bugliosi, Outrage: The Five Reasons Why O.J. Simpson Got Away with Murder (1996); and Mark Fuhrman, Murder in Brentwood (1997).

103. While trust typically turns on issues of integrity, it also involves competence. Recent mass media reports of evidence fabrication and incompetence in police laboratories exemplify the type of reporting that would be expected to undermine public confidence in the competence of legal authorities involved in investigating crimes. See Cole, supra note 69; Michael J. Saks & Jonathan J. Koehler, The Coming Paradigm Shift in Forensic Identification Science, 309 Science 892 (2005); Jason Schklar & Shari Seidman Diamond, Juror Reactions to DNA Evidence: Errors and Expectancies, 23 Law & Hum. Behav. 159 (1999).


105. Id. at 23.

The problems created by declining trust in legal authorities are not new. In the past several decades there have been a number of efforts to restrict the discretionary authority of legal actors whose motives were viewed as suspect. An initial focus of such efforts was on judges, whose ability to sentence has been constrained by the application of sentencing guidelines and three-strikes laws. In addition, the police have been a focus of concern, as studies suggest that members of the public often suspect officers of racial profiling. In each case, the underlying issue has been the decreasing willingness of members of the public to allow legal authorities to exercise their best judgment because of concerns that legal actors are not motivated by a genuine concern for the well-being of all the people in their communities. A similar skepticism is found when members of a jury do not trust the prosecution to have conducted a thorough, competent, good-faith investigation.

These findings on confidence and trust suggest the possibility that juries are less likely to convict because they increasingly lack trust in the legal authorities who are responsible for investigating and prosecuting criminal cases. If that is the case, the question is what might reinforce the credibility of these authorities? One possibility is an increase in the perceived reliability of scientific evidence. From this perspective, the CSI effect is two sided. CSI may raise the standards for assessing guilt, but the use of scientific evidence may also increase the credibility of the state. At least, the scientific community seems to have higher credibility than does the state, suggesting that the

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107. One reason for the decline of trust in government is that media depictions of law and crime often feature prosecutors who lack competence and integrity. See Macaulay, supra note 82, at 199. This is not universally true, however, as the investigators on CSI and the lawyers on Law & Order are presented in a positive way.


110. The increasing distrust of legal authorities might explain why jurors are less inclined to accept the arguments and directives of prosecutors, police officers, and judges. However, it might also mean that jurors, and the public more generally, will feel more freedom to act on their own feelings, ignoring the law and the suggestions of legal authorities. Because the public is often quite punitive and is widely found to view judges as too lenient, this may mean that the jury would feel free to convict and harshly punish defendants irrespective of the arguments of prosecutors and the directives of judges. Hence, the way that low trust and confidence influence jurors will depend upon the circumstances of a particular case and the type of victim and defendant involved.
association of the prosecution with science ought to increase trust and confidence in the state. As noted above, the investigators in CSI always get their perpetrator, conveying an image of competence that may influence juror views of authority. Hence, CSI may counter increasing distrust and skepticism regarding the law and legal actors.111

If jurors are less inclined to accept prosecutorial arguments due to general distrust and lack of confidence, the criminal justice system can respond in two ways. First, individual prosecutors can build personal trust and confidence through their actions. Second, the state can build general trust and confidence in its authorities and institutions. A judge or prosecutor can draw upon a reservoir of trust from the general legitimacy of the law and the legal system. Based upon such legitimacy, he can anticipate that the jury will be inclined to trust his reasons for acting rather than question his credibility and integrity. Because such institutional trust has declined—leading jurors to be more skeptical of the state and state actors—legal authorities must increasingly create their own legitimacy through personal actions.112 The police, for example, cannot count on deference due to their status as police officers. Instead, police officers go to community meetings or engage in community policing patrols so that community residents know them personally and will defer to them based upon their personal trustworthiness.113

To the degree that declining trust and confidence in legal authorities underlie the perceived increase in acquittals, evidence about how to combat that problem is clear. Studies show that trust and confidence—both on a personal and on an institutional level—are created or undermined primarily in reaction to the manner in which authorities exercise their authority. In other words, they are responsive to procedural justice.114

111. CSI investigators do have to testify in court, but they don't like it. For example, upon returning from court, one investigator, Warrick, states bluntly: "It sucked. I hate lawyers, I hate court. They all need to dry up and die." CSI: Crime Scene Investigation: Viva Las Vegas (CBS television broadcast Sept. 23, 2004) (transcript available at http://twiztv.com/scripts/csi/seasons/csi-5ol.txt).
112. The creation of legitimacy through personal actions is addressed in NAT'L RESEARCH COUNCIL, FAIRNESS AND EFFECTIVENESS IN POLICING: THE EVIDENCE 291-326 (Wesley Skogan & Kathleen Frydl eds., 2004).
113. See id. at 61, 298.
114. See E. ALLAN LIND & TOM R. TYLER, THE SOCIAL PSYCHOLOGY OF PROCEDURAL JUSTICE (1988); TOM R. TYLER, WHY PEOPLE OBEY THE LAW 6-7, 115-57 (1990); TYLER & HUO, supra note 101, at 49-57; Tyler, supra note 76.
Why is such trust and confidence important? People need to feel comfortable with the verdict reached, even when the "truth" of the case cannot be known. The processes of the trial build trust and confidence in the state and the prosecution, leading the community to feel comfortable with the uncertainty inherent in the verdict. Unlike in Perry Mason, criminal suspects are seldom moved to confess their guilt in open court. On the contrary, almost all defendants proclaim their innocence, at least until they make a bargain as part of a plea deal. And, of course, high-profile trials are high profile precisely because the defendants have declined to plead out their cases. Hence, the process of inferring guilt most frequently requires judges and juries to make sense of conflicting evidence. To reconcile this task with convicting someone of a crime—a serious and solemn act—the jury must have confidence in the integrity and competence of the prosecution, as well as in the fairness of the trial procedures. This requires the state to produce evidence that can convince the jury of the defendant's guilt beyond a reasonable doubt. It also requires that the state make clear that the procedures of the trial are fair—including an accurate and unbiased presentation of the facts—and that the rights of the defendant are of concern to the state. In other words, jurors need to see that the prosecution is motivated by the desire to do what is right for both the victim and the defendant—i.e., to achieve justice. This is fundamentally an issue of trust and of procedural justice, because the jury is not able to observe the investigation directly and cannot know whether it was thorough and unbiased. It is the procedure, therefore, that legitimates the verdict in the face of uncertainty.

CONCLUSION

The CSI effect has become an accepted reality by virtue of its repeated invocation by the media. Although no existing empirical research shows that it actually occurs, on a basic level it accords with the intuitions of participants in the trial process.

The suggestion that watching CSI might raise juror standards is consistent with empirical findings in other areas of legal psychology. There are large

research literatures in the field supporting the argument that the mass media presentation of crime could produce a CSI effect of some kind. These literatures suggest that media presentations of background material shape juror verdicts in specific cases. Further, these effects occur even when people are instructed not to take account of the background material. Hence, it is entirely plausible that watching CSI shapes juror standards. While these studies focus on prior presentations of factual data about real crimes, there is evidence in the mass media literature that people do not adequately distinguish between the presentation of real crimes and the presentation of fictionalized crimes. These various mass media presentations of crime blur into a general message that shapes the attitudes and beliefs of members of the public.

It is equally plausible, however, that CSI might have an effect opposite of that which has been suggested. CSI might aid the prosecution by lowering juror standards. The psychological literature on reactions to crime demonstrates that people want to see justice for victims. In the aid of this desire, standards for evidentiary sufficiency waver. The emotional desire to punish the criminal and restore the moral balance of the community can overwhelm the cognitive search for truth.

When jurors are motivated to identify and punish a wrongdoer, they can exaggerate the value of scientific evidence, viewing it as overly conclusive. People generally overvalue scientific evidence and engage in an active process of distortion to create justifications for decisions that they want to make. By providing increased legitimacy for scientific evidence, CSI may encourage people to make scientific evidence the focus of their justification efforts. And, of course, people can lower their standards as well. As an example, death-qualified juries do not distort the quality of the evidence but have a lower threshold to convict. This second mechanism for justification is also identified in studies of the impact of pretrial publicity. People who come into a trial biased have a lower threshold of evidence to establish guilt.

More specifically, when the desire for justice for the victim is greater than the desire for justice for the defendant, jurors may engage in the type of justifications that would lead to a reverse CSI effect—raising the perceived probative value of the evidence and increasing the likelihood of conviction. For example, when an innocent victim is harmed by a remorseless perpetrator of dubious character, we should expect to see these motivations come into play.

Finally, this Review suggests that there are alternative explanations for the allegedly increasing acquittal rate that has led to speculation about a possible CSI effect. First, juries may have increased sympathy for defendants. Second, juries may simply be less likely to convict than people with legal training and court experience expect them to be. Third, as the public's trust and confidence in the courts and the law decline, jurors may be increasingly skeptical of, and
less inclined to defer to, the arguments of legal authorities. To the degree that any of these three alternative explanations is correct, there may be an increase in acquittals that is not linked to watching CSI. The effect may exist, but it may not be a CSI effect.