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Why Confessions Trump Innocence

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As illustrated by the story of Amanda Knox and many others wrongfully convicted, false confessions often trump factual innocence. Focusing on consequences, recent research suggests that confessions are powerfully persuasive as a matter of logic and common sense; that many false confessions contain richly detailed narratives and accurate crime facts that appear to betray guilty knowledge; and that confessions in general can corrupt other evidence from lay witnesses and forensic experts—producing an illusion of false support. This latter phenomenon, termed “corroboration inflation,” suggests that pretrial corroboration requirements as well as the concept of “harmless error” on appeal are based on an erroneous presumption of independence among items of evidence. In addition to previously suggested reforms to police practices that are designed to curb the risk of false confessions, measures should be taken as well to minimize the rippling consequences of those confessions.

Keywords: confession, innocence, wrongful conviction

On November 2, 2007, British exchange student Meredith Kercher was found raped and murdered in Perugia, Italy. Almost immediately, police suspected 20-year-old Amanda Knox, an American student and one of Kercher’s roommates—the only one who stayed in Perugia after the murder. Knox had no history of crime or violence and no motive. But something about her demeanor—such as an apparent lack of affect, an outburst of sobbing, or her girlish and immature behavior—led police to believe she was involved and lying when she claimed she was with Raffaele Sollecito, her new Italian boyfriend, that night.

Armed with a prejudgment of Knox’s guilt, several police officials interrogated the girl on and off for four days. Her final interrogation started on November 5 at 10 p.m. and lasted until November 6 at 6 a.m., during which time she was alone, without an attorney, tag-teamed by a dozen police, and did not break for food or sleep. In many ways, Knox was a vulnerable suspect—young, far from home, without family, and forced to speak in a language in which she was not fluent. Knox says she was repeatedly threatened and called a liar. She was told, falsely, that Sollecito, her boyfriend, disavowed her alibi and that physical evidence placed her at the scene. She was encouraged to shut her eyes and imagine how the gruesome crime had occurred, a trauma, she was told, that she had obviously repressed. Eventually she broke down crying, screaming, and hitting herself in the head. Despite a law

that mandates the recording of interrogations, police and prosecutors maintain that these sessions were not recorded.

Two “confessions” were produced in this last session, detailing what Knox called a dreamlike “vision.” Both were typed by police—one at 1:45 a.m., the second at 5:45 a.m. She retracted the statements in a handwritten letter as soon as she was left alone (“In regards to this ‘confession’ that I made last night, I want to make it clear that I’m very doubtful of the verity of my statements because they were made under the pressures of stress, shock, and extreme exhaustion.”). Notably, nothing in the confessions indicated that she had guilty knowledge. In fact, the statements attributed to Knox were factually incorrect on significant core details (e.g., she named as an accomplice a man whom police had suspected but who later proved to have an ironclad alibi; she failed to name another man, unknown to police at the time, whose DNA was later identified on the victim). Nevertheless, Knox, Sollecito, and the innocent man she implicated were all immediately arrested. In a media-filled room, the chief of police announced: *Caso chiuso* (case closed).

Police had failed to provide Knox with an attorney or record the interrogations, so the confessions attributed to her were ruled inadmissible in court. Still, the damage was done. The confession set into motion a hypothesis-confirming investigation, prosecution, and conviction. The man whose DNA was found on the victim, after specifically stating that Knox was not present, changed his story and implicated her while being prosecuted. Police forensic experts concluded that Knox’s DNA on the handle of a knife found in her boyfriend’s apartment also contained Kercher’s blood on the blade and that the boyfriend’s DNA was on the victim’s bra clasp. Several eyewitnesses came forward. An elderly woman said she was awakened by a scream followed by the sound of two people running; a homeless drug addict said he saw Knox and Sollecito in the vicinity that night; a convicted drug dealer said he saw all three suspects together; a grocery store owner said he saw Knox the next morning looking for cleaning products; one witness said he saw Knox wielding a knife.

On December 5, 2009, an eight-person jury convicted Amanda Knox and Raffaele Sollecito of murder. The two were sentenced to 26 and 25 years in prison, respectively.

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Finally, on October 3, 2011, after having been granted a new trial, they were acquitted. Ten weeks later, the Italian appeals court released a strongly worded 143-page opinion in which it criticized the prosecution and concluded that there was no credible evidence, motive, or plausible theory of guilt. For the four years of their imprisonment, this story drew international attention (for comprehensive overviews of the case, see Dempsey, 2010, and Burleigh, 2011).¹

It is now clear that the proverbial mountain of discredited evidence used to convict Amanda Knox and Raffaele Sollecito was nothing but a house of cards built upon a false confession. The question posed by this case, and so many others like it, is this: Why do confessions so often trump innocence?

The Psychology of Confessions

This article represents my third in this journal on the psychology of confession evidence. In the first article (Kassin, 1997), I overviewed an emerging study of confessions, described and critically evaluated the influential Reid technique of interrogation (Inbau, Reid, Buckley, & Jayne, 2013), and reiterated three classic types of false confessions previously identified (Kassin & Wrightsman, 1985). The purpose was to describe the phenomenon of false confessions and to note relevant psychological theories and research on the suspect characteristics and police interrogation techniques that can lead innocent people to confess.

Inspired by the founding of the Innocence Project (<http://www.innocenceproject.org/>; see Scheck, Neufeld, & Dwyer, 2000) and the first wave of DNA exonerations in the 1990s, a startling 25% of which contained false confessions in evidence, and further animated by recent debates over the use of torture or “enhanced” methods of interrogation (Greenberg, 2006), interest in this literature

has exploded. This burst of activity can be seen in stories about actual cases (e.g., Burns, 2011; Firstman & Salpeter, 2008; Wells & Leo, 2008), a best-selling crime novel (Grisham, 2010), and publications of review articles, book chapters, and whole books focused on the emerging science of false confessions (Gudjonsson, 2003; Gudjonsson & Pearse, 2011; Kassin, 2008; Kassin & Gudjonsson, 2004, 2005; Lassiter, 2004; Lassiter & Meissner, 2010; Leo, 2008).

On the basis of individual and aggregated case studies (Drizin & Leo, 2004; Garrett, 2011; Warden & Drizin, 2009) and self-reports from civilians (Gudjonsson, Sigurdsson, & Sigfusdottir, 2009) as well as police (Kassin et al., 2007), it is now clear that false confessions are not a new or novel phenomenon and that they occur on a regular basis in all parts of the world and in criminal justice, military, and corporate settings. Research continues at a brisk pace—examining, for example, the practices of police interrogation (Leo, 2008); the extent to which *Miranda* rights comprehension and recall are compromised by language (Rogers, Hazelwood, Sewell, Harrison, & Shuman, 2008) as well as interrogation stress and other situational factors (Rogers, Gillard, Wooley, & Fiduccia, 2011; Scherr & Madon, 2011); the links between mental illness and false confession (Redlich, Kulish, & Steadman, 2011; Redlich, Summers, & Hoover, 2010); adolescence as a risk factor (Owen-Kostelnik, Reppucci, & Meyer, 2006); race differences in interrogation room behavior (Kennard & Kassin, 2009; Najdowski, 2011); “secondary confessions” alleged by informants about the suspect (Swanner, Beike, & Cole, 2010); perceptions of torture in the context of interrogation (Nordgren, McDonnell, & Loewenstein, 2011); similarities and differences between suspect and victim statements (Malloy & Lamb, 2010); basic psychological processes underlying a suspect’s decision to confess (Davis & Leo, 2012; Madon, Gyll, Scherr, Greathouse, & Wells, 2012); the effects of guilt-presumptive confirmation biases on behavior in the interrogation room (Hill, Memon, & McGeorge, 2008; Kassin, Goldstein, & Savitsky, 2003; Narchet, Meissner, & Russano, 2011); the use of “investigative interviewing” as an alternative approach to questioning suspects (Williamson, 2006); and the development of new laboratory paradigms to devise more diagnostic police methods of deception detection (Vrij, Granhag, & Porter, 2010) and interrogation (Meissner, Russano, & Narchet, 2010). This literature was comprehensively summarized in an official White Paper of the American Psychology-Law Society (Division 41 of the American Psychological Association [APA]; Kassin et al., 2010).

In a second article (Kassin, 2005), I additionally proposed the paradoxical hypothesis that false confessions are facilitated not only by dispositional characteristics of weak and vulnerable suspects (i.e., youth, intellectual impair-

¹ Additional sources to which I had access include the translated police reports of Knox’s statements; personal communications with Amanda Knox, Madison Paxton, and Nina Burleigh; and the Perugia Murder File translation of the Jury/Judge Conviction Report.

ment, mental illness, and personality traits that foster compliance and suggestibility) and situational aspects of custody and interrogation (i.e., lengthy sessions, threats, promises, presentations of false evidence, and minimization themes that imply leniency) but by the phenomenology of innocence. Innocence is a mental state that leads innocent people to waive their *Miranda* rights to silence and to counsel (Kassin & Norwick, 2004; Moore & Gagnier, 2008); to behave in ways that are open and forthcoming in their interactions with police (Hartwig, Granhag, & Strömwall, 2007); to offer up alibis freely, without regard for the fact that police may view minor inaccuracies with suspicion (Olson & Charman, 2011); and to exhibit less physiological arousal in response to the stress of interrogation (Guyl et al., 2012) and on critical items of a concealed information test even when preinformed about the crime (Elaad, 2011). Over the years, laboratory experiments have shown that the vast majority of participants who are accused of a transgression they did not commit—in stark contrast to those who are guilty—refuse to accept plea offers, often to their own detriment, indicating their confidence in acquittal (Gregory, Mowen, & Linder, 1978; Tor, Gazal-Ayal, & Garcia, 2010).

The story of Amanda Knox illustrates just how *innocence* can put *innocents* at risk. Immediately after Meredith Kercher was found murdered, her English roommates left Perugia; her Italian roommates obtained lawyers. Yet Knox, naïve to the risk and exhibiting no consciousness of guilt, wanted to stay to help police. Knox's mother described her daughter as “oblivious to the dark side of the world” (Rich, 2011). Even later, in court, on the day of her first verdict, Knox fully expected to be acquitted (Burleigh, 2011).

Theorizing that innocence is a state of mind that leads people to trust the criminal justice system during interrogation, Perillo and Kassin (2011) examined the relatively benign bluff technique by which interrogators pretend to have evidence without asserting outright that this evidence implicates the suspect (e.g., stating that witnesses were present to be interviewed or that biological evidence was collected and sent to a laboratory for testing). The theory underlying the bluff makes sense: Fearing the evidence to be processed, perpetrators will succumb to police pressure and confess; not fearing that alleged evidence, innocents would not succumb and confess. Yet in two experiments, Perillo and Kassin found that innocent participants were substantially more likely to confess to pressing a forbidden key, causing a computer to crash, when told that their keystrokes had been recorded for later review. In a third experiment, innocent participants were more likely to confess to willful cheating when told that a surveillance camera had taped their session. In both sets of studies, these participants noted that the bluff represented a promise of future exoneration despite confession, which paradoxically made it easier to confess.

The Consequences of Confession

In the present article, I shift the focus from the psychological causes of false confessions, as discussed in my previ-

ous articles, to their *consequences* for police investigations, prosecutions, jury trials, and appeals—and the implications that follow for law and the administration of justice. In a nutshell, I propose the empirically generated argument that the vital principle of corroboration is based on a misconception concerning proof of guilty knowledge and the independence of different types of evidence and cannot, therefore, be trusted to safeguard innocent confessors against wrongful conviction.

Once a suspect confesses, police often close the investigation, deem the case solved, and overlook exculpatory information—even if the confession is internally inconsistent, contradicted by external evidence, or the product of coercive interrogation (Drizin & Leo, 2004; Leo & Ofshe, 1998). This trust in confessions may extend to prosecutors as well, some of whom express skepticism about false confessions and stubbornly refuse to admit the possibility of their falsity even after DNA testing has unequivocally excluded the confessor (Findley & Scott, 2006). For example, Bruce Godschalk was exonerated of two rape convictions after 15 years in prison when DNA tests indicated that he was not the rapist. Yet the district attorney refused, at first, to accept the results. When questioned about it, this district attorney said, “I have no scientific basis. I know because I trust my detective and my tape-recorded confession. Therefore the results must be flawed until someone proves to me otherwise” (Rimer, 2002, p. A14). This is not an isolated incident. The Center on Wrongful Convictions (2010) reported on several known cases in which a confessor was tried and convicted despite having being excluded by DNA. Some instances are so flagrant that the *New York Times Magazine* recently published an article titled “The Prosecution’s Case Against DNA” about prosecutors who generate improbable arguments to reconcile the DNA exclusion of suspects who have given prior confessions (Martin, 2011).

It is important to note that many tragic false confession stories contain two psychology-rich subplots: (a) why it happened, that is, the dispositional and situational factors that caused an innocent person to confess and (b) why judges, juries, and appeals courts all believed the false confession, making the effect difficult to reverse. It is also important to note that much of what is known about false confessions in the real world is based on a specialized subset of cases, often involving rape and murder, in which the confession both resulted in a wrongful conviction and was later identified as such. Mostly hidden from view are cases in which the confessor’s innocence was discovered before conviction or not at all.

Perceptions of Confession Evidence

False confession is not a phenomenon that is known to the average layperson as a matter of common sense. Over the years, mock jury studies have shown that confessions have more impact on verdicts than do other potent forms of evidence (Kassin & Neumann, 1997) and that people do not adequately discount confessions—even when they are retracted and judged to be the result of coercion (Kassin & Sukel, 1997; Kassin & Wrightsman, 1980; Redlich, Gheiti,

& Quas, 2008), even when jurors are told that the confessor suffered from psychological illness or interrogation-induced stress (Henkel, 2008), and even when the confessions are provided not by the defendant himself or herself but by an informant who is incentivized to falsely implicate the defendant (Neuschatz, Lawson, Swanner, Meissner, & Neuschatz, 2008). Most people reasonably believe that they would never confess to a crime they did not commit, so they evaluate others accordingly, do not understand the influence of police interrogation practices, and have only a rudimentary understanding of the dispositional and situational factors that would lead someone innocent to confess (Blandón-Gitlin, Sperry, & Leo, 2011; Henkel, Coffman, & Dailey, 2008; Leo & Liu, 2009).

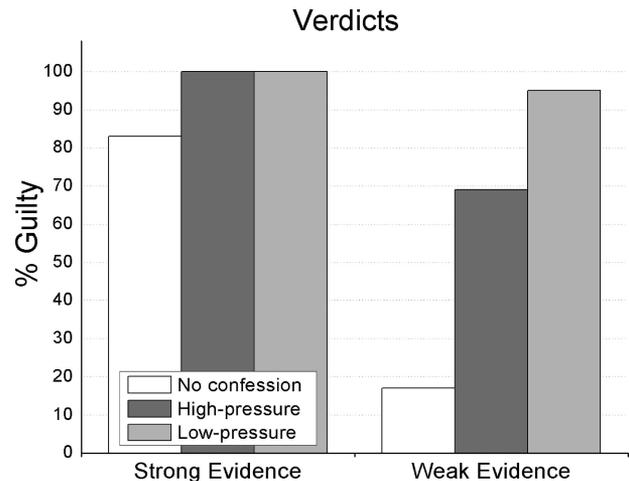
The noncritical acceptance of confessions afflicts judges as well as lay juries. In one study, Wallace and Kassin (2012) presented 132 judges from three states with a murder case summary in which there was strong or weak evidence against the defendant. In a high-pressure confession condition, the defendant was questioned for 15 hours, during which time his interrogators screamed, threatened him with the death penalty, waved a gun, and refused to accept his claims of innocence. In a low-pressure confession condition, the defendant was questioned for only 30 minutes before producing a confession; although he claimed that he was coerced, he described nothing specific and the claim was not borne out by a videotape of the session. In the no-confession condition, participants were told only that the defendant was questioned by police, during which time he denied any involvement.

Reasonably, judges were less likely to see the confession as voluntary, and hence as properly admitted into evidence, when it resulted from a high-pressure than a low-pressure interrogation (29% vs. 84%, respectively). Paralleling past research on mock juries, however, even the high-pressure confession significantly increased guilty verdicts. Figure 1 shows that conviction rates were uniformly high across cells in the strong evidence condition. But in the weak evidence condition, which produced a mere 17% conviction rate absent a confession, a significant increase in conviction rate was produced not only by the low-pressure confession (96%) but by the high-pressure confession as well (69%). As with lay juries, judges see confession as such powerful evidence that they do not discount it when it is legally and logically appropriate to do so.

The Common Sense of Confessions

The tendency to believe confessions begins with the fact that people reflexively accept what is presented to them. In an article titled “How Mental Systems Believe,” Gilbert (1991) distinguished between two Western philosophical views on the acquisition of beliefs. René Descartes (1644/1984) opined that people are neutral in their reactions to new assertions—first acquiring and comprehending an idea and then accepting it or not if justified, say, by logic or extrinsic evidence. In contrast, Benedict Spinoza (1677/1982) argued that people automatically and inevitably accept as true every assertion they hear—and must then, later, correct for that belief if it proves not to be credible. Cre-

Figure 1
Percentage of Judges Who Voted Guilty When the Case Was Strong or Weak and When It Contained a High- or Low-Pressure Confession—or None at All



Note. Adapted from “Harmless Error Analysis: How Do Judges Respond to Confession Errors?” by D. B. Wallace & S. M. Kassin, 2012, *Law and Human Behavior*, 36, p. 155. Copyright 2011 by the American Psychological Association.

dulity, acceptance, and belief thus precede skepticism, doubt, and disbelief. Describing this latter view, William James (1890) noted, “All propositions, whether attributive or existential, are believed through the very fact of being conceived” (p. 290).

The myth that legal decision makers can be trusted to disbelieve false confessions and serve as a safety net for innocent confessors is debunked by a number of basic tendencies and shortcomings of social perception. To begin with, there is empirical support for Gilbert’s (1991) argument “that people are Spinozan systems that, when faced with shortages of time, energy, or conclusive evidence, may fail to unaccept the ideas that they involuntarily accept during comprehension” (p. 115). In one study, for example, research participants read a crime report that contained information indicating that the crime was high or low in severity. That information was explicitly tagged as false upon presentation, yet it led participants to administer harsher or more lenient sentences, respectively, to the defendant (Gilbert, Tafarodi, & Malone, 1993). In a second study, participants who read a short story they knew to be fictional—like a novel, movie, or television show—later incorporated elements of that story into their beliefs about the real world (Gerrig & Prentice, 1991).

This tendency for people to accept what they see and hear at face value manifests itself in two confession-relevant literatures. In one area, researchers have consistently observed that people are notoriously gullible, exhibiting a truth bias that contributes to poor performance at detecting deception (Bond & DePaulo, 2006; Levine, Park, &

McCornack, 1999). It appears that neither laypeople nor professionals distinguish truths from lies at high levels of accuracy, even in high-stakes forensic domains (Hartwig & Bond, 2011; Vrij, 2008; Vrij et al., 2010). This problem can be seen in people's inability to identify false confessions. Kassin, Meissner, and Norwick (2005) videotaped male prison inmates as they gave true confessions for their crimes and concocted false confessions to crimes they did not commit. Neither college students nor police investigators were adept at distinguishing true from false confessions. This finding was later replicated for judgments of juvenile suspects (Honts, Kassin, & Forrest, 2009).

The tendency to accept self-report and other behavior at face value is also evident in the domain of attribution. Over a wide range of contexts, research has shown that social perceivers routinely commit the *fundamental attribution error*, or *correspondence bias*—that is, they tend to make dispositional attributions for other people's actions while underestimating the role of situational factors (Gilbert & Malone, 1995; Jones, 1990; Ross, 1977). Hence, although people recognize the coerciveness of certain interrogation tactics, they do not perceive an accompanying risk of false confessions or the dispositional and situational factors that would increase it (Henkel et al., 2008; Leo & Liu, 2009).

The common sense of confession is particularly problematic for the innocent confessor. In addition to the Spinozan tendency for people to believe what they see and hear from others, people have a strong tendency in attribution—as noted by Heider (1958), Jones and Davis (1965), and other attribution theorists—to especially trust statements against self-interest. This principle of intuitive attributional logic is embedded in the Federal Rules of Evidence (FRE) that prohibit hearsay, a secondhand statement that a witness heard about from someone else and did not perceive directly. In general, hearsay is inadmissible because it cannot be trusted. There are, however, notable exceptions to the hearsay rule. FRE 804-b-3 states that “declarations against interest” (i.e., statements that would expose a declarant to criminal or civil liability) are admissible as an exception to the hearsay rule on the assumption that such statements in particular can be trusted. Illustrating use of this principle of self-interest, research shows that people are far more likely to believe a suspect's admissions of guilt than his or her denials (Levine, Kim, & Blair, 2010).

APA's Amicus Curiae Briefs on Confessions

The impulse to trust confessions, almost regardless of the circumstances under which they are taken or regardless of exculpatory evidence, can be seen in the way U.S. courts often react to defendants convicted by confession. This point is illustrated by two cases in which APA submitted amicus curiae briefs on behalf of convicted confessors—first, on the question of whether they should be eligible, as others are, for DNA testing to establish factual innocence; and second, on the question of whether, if exonerated, they are eligible, along with others who are wrongfully convicted, to receive compensation from the state.

Wright v. Commonwealth of Pennsylvania (see <http://www.apa.org/about/offices/ogc/amicus/wright.aspx>) concerned the case of Anthony Wright, who was convicted in 1993 of rape and murder on the basis of a confession ruled voluntary and admitted at his trial. Along with many other states, Pennsylvania recently passed a law to ensure a prisoner's right to postconviction DNA testing to establish factual innocence. Wright was denied that right, however, because state courts ruled that if a defendant had confessed, then he or she was later barred from asserting innocence in a request for DNA testing. On November 13, 2008, APA submitted an amicus curiae brief stating that innocent people can be induced to confess through processes of interrogation and that Wright's confession, even if voluntary by law, should not bar his consideration for postconviction DNA testing. In February of 2011, the Supreme Court of Pennsylvania agreed and overruled the lower courts.

In *Warney v. State of New York* (<http://www.apa.org/about/offices/ogc/amicus/warney.aspx>), Doug Warney—a man with mental retardation and AIDS-related dementia—had been convicted of murder on the basis of a richly detailed false confession produced after hours of interrogation. After serving a nine-year prison term, he was exonerated by DNA testing. When Warney sought reparations, as provided by the state's compensation statute, however, the court ruled that he was ineligible because his conviction resulted from his “own conduct”—which is to say, the false confession. On July 9, 2010, APA filed an amicus brief supporting Warney's petition that false confession should not bar a wrongfully convicted person from recovery under the Unjust Conviction Act. In March 2011, the New York State Court of Appeals unanimously decided in Warney's favor.

In still other briefs, APA has weighed in to note that judges and juries have difficulty assessing confession evidence, that the phenomenon of false confession is counterintuitive, and that psychological experts should be permitted to testify at trial because their testimony would draw from generally accepted research and would assist the trier of fact (*Rivera v. Illinois*, July 12, 2010, <http://www.apa.org/about/offices/ogc/amicus/rivera.aspx>; *Michigan v. Kowalski*, September 1, 2011, <http://www.apa.org/about/offices/ogc/amicus/kowalski.aspx>).

Confessions as Hollywood Productions

Analyses of actual cases suggest that police-induced false confessions pose a particular challenge to judges and juries because they often contain not only an admission of guilt but a full narrative replete with content cues commonly associated with truth telling and guilty knowledge. In an examination of 38 false confessions derived from the Innocence Project's DNA exoneration case files, Garrett (2010) found that 36 contained accurate crime details. In fact, most contained nonpublic information that became a centerpiece of their prosecution—information, according to detectives who testified, that only the perpetrator could have known. As these confessors were factually innocent and had no firsthand basis for guilty knowledge, it appears that police had communicated these details, inadvertently

or purposefully—through leading questions and assertions, exposure to photographs, or escorted visits to the crime scene.

To further complicate matters, many false confessions contain vivid details of what the suspect allegedly did, how, why, and with what effects. In a content analysis of 20 false confessions, Appleby, Hasel, and Kassin (2011) found that all the statements contained visual and auditory details about the crime and how it was committed, about the time and location, and about the victim—his or her physical appearance and behavior before, during, and after the crime. Overall, most statements referenced co-perpetrators, witnesses, and other actors; most described a motive (e.g., jealousy, revenge) and a minimization theme that justified, excused, mitigated, or externalized blame (e.g., claiming the crime was spontaneous or accidental; blaming alcohol, peer pressure, or provocation). Still others contained explicit assertions that the confession was voluntary, “illustrators” (e.g., a hand drawn map or a physical reenactment), deliberately inserted errors that were corrected by the confessor, expressions of remorse, and outright apologies. These results appear in Table 1. Not surprisingly, a follow-up mock jury study showed that elaborate narrative confessions in which the defendant recounted how and why he or she committed the crime increased confidence in guilty verdicts.

The case of DNA-exonerated confessor Barry Laughman illustrates the richness of these narratives. Laughman’s false confession contained facts about the crime that were verifiable, strikingly accurate, and not in the public

domain. Despite Laughman’s innocence, his statement revealed where the victim was found and in what position, that a window was open, that she was vaginally raped, that she had suffocated on pills, that she was hit in the head and grabbed by the wrists, and that a handful of cigarette butts had been strewn throughout the house. His confession also contained descriptions of a coverup, statements of motivation for both the rape and the murder, and gratuitous expressions of shame—all of which served to mislead a judge and jury (Garrett, 2010; <http://www.innocenceproject.org>).

Reflecting the layperson’s bias toward making dispositional attributions for behavior, numerous wrongful conviction cases suggest that narrative confessions can be so powerful as to overwhelm contradictory forensic evidence. In the case of Amanda Knox described earlier, the prosecutor theorized in the wake of her coerced confession that Knox was motivated by money or personal envy of her British roommate. Two weeks later, the rapist whose DNA was found in sperm and other biological matter at the crime scene was apprehended. Yet rather than reconsider Knox’s confession in light of this contradictory evidence, the prosecutor spun a new and wholly unsupported theory of the crime: that the rapist, Knox, and her boyfriend had come together and killed the victim as part of a satanic sex game (at trial, he redacted the satanic part but still referred to Knox as a “she-devil”).

In matters of proof, one would expect that people in general would trust science over self-report. In the courtroom, however, confessions often trump exculpatory DNA evidence. In the infamous Central Park jogger case, for example, five boys were convicted of rape on the basis of their confessions even though all were excluded by the DNA found on the victim. At trial, the prosecutor argued that the results proved only that the defendants failed to ejaculate and that an unknown sixth accomplice was present (Burns, 2011). In a series of studies, Appleby and Kassin (2011) tested the counterintuitive hypothesis that confession trumps DNA. They found that people confronted with a confession and exculpatory DNA evidence seldom voted for conviction, even when the confession conveyed details about the crime. But when the prosecutor offered an explanatory theory to reconcile the contradiction (e.g., the defendant failed to ejaculate and the semen reflected a prior consensual sex act or an unnamed accomplice), the conviction rate increased significantly—from 10% to 33% in a study of college students, and from 14% to 45% in a study of community adults.

Confessions Corrupt Other Evidence

Precisely because confession evidence is highly trusted as a matter of logic and common sense, it often provides a sufficient basis for jury convictions. However, basic research in social cognition suggests the possibility of a second, more troubling mechanism by which confessions exert influence: by tainting the perceptions of eyewitnesses, forensic experts, and others entrusted to provide independent other evidence to a judge and jury.

Table 1
Content Analysis of 20 False Confessions: Percentages Containing Various Details

Contents	Frequency
Time and place	
Time of day	100%
Location and space	100%
Visual crime detail	100%
Illustrators	45%
The victim	
Victim’s behavior	100%
Victim’s words and utterances	80%
Victim’s physical appearance	75%
Victim’s mental state	45%
Self-reflections	
Cognitive/affective inner states	85%
Motives for the crime	80%
Minimization themes	60%
Statement of voluntariness	50%
Expressions of remorse	40%
Explicit apologies	25%

Note. Adapted from “Police-Induced Confessions: An Empirical Analysis of Their Content and Impact” by S. C. Appleby, L. E. Hasel, and S. M. Kassin, 2011, *Psychology, Crime & Law*. Advance online publication, pp. 5–6. Copyright 2011 by Taylor & Francis.

Over the years, psychological research across a range of domains has revealed that top-down influences inform human judgment. Classic studies showed that prior exposure to images of a face or a body, an animal or a human, or letters or numbers can bias what people perceive in an ambiguous figure (Bruner & Minturn, 1955; Bugelski & Alampay, 1961; Fisher, 1968; Leeper, 1935). Similarly, people detect more resemblance between an adult and a child when led to believe that the two are parent and offspring (Bressan & Dal Martello, 2002); they perceive more similarity between a suspect and a facial composite when led to believe the suspect is guilty (Charman, Gregory, & Carlucci, 2009); and they hear more incrimination in degraded recordings of speech when led to believe that the interviewee was a criminal suspect (Lange, Thomas, Dana, & Dawes, 2011).

The literature on the primacy of first impressions further illustrates that prior beliefs can bias the interpretation of evidence (Asch, 1946). Depending on one's first impression of a person, the word *proud* can mean self-respecting or conceited; *critical* can mean astute or picky; and *impulsive* can mean spontaneous or reckless (Hamilton & Zanna, 1974; Watkins & Peynircioglu, 1984). Because of the operation of ubiquitous confirmation biases, the presence of objective evidence may even exacerbate the effects of preexisting beliefs (Nickerson, 1998). When subjects were asked to evaluate the academic potential of a schoolgirl from a high or low socioeconomic status background, those who observed her taking a test in which she answered some questions correctly but not others exhibited a greater stereotype effect than those who did not see her test-taking performance. Rather than extinguish the effect of the stereotype, the objective behavioral evidence reinforced it (Darley & Gross, 1983).

Recent research suggests that confessions may trigger the same types of confirmation processes in the high-stakes venue of the criminal justice system. In one study, Elaad, Ginton, and Ben-Shakhar (1994) asked polygraph examiners from the Israeli Police Force to evaluate and interpret charts previously deemed inconclusive. Some examiners, but not others, were told that the suspect had ultimately confessed. Results showed that those in the confession condition rated the charts as significantly more deceptive than those in the control condition (similar results were not obtained on charts that were conclusive). In a second study, Dror and Charlton (2006) presented five latent fingerprint experts with pairs of prints from a crime scene and a suspect in an actual case in which they had previously made a match or exclusion judgment. The prints were accompanied either by no extraneous information; by an instruction that the suspect had confessed, suggesting a match; or by an instruction that the suspect was in custody at the time, suggesting exclusion. The misinformation in the two biasing conditions produced an overall change in 17% of the original, previously correct judgments—a finding that may well extend to visual similarity judgments in other forensic science domains such as ballistics; hair and fiber analysis; bite marks; impression evidence involving shoeprints, bite marks, tire tracks, and handwriting; and

bloodstain pattern analysis (Dror & Cole, 2010). Even the interpretation of complex DNA mixtures may require judgment that is subject to bias (Dror & Hampikian, 2011).

Confessions may also influence the testimony of lay witnesses. Hasel and Kassin (2009) staged a theft and asked for photographic identification decisions from witnesses using a lineup that did not contain the culprit. Two days later, individual witnesses were told that the person they had identified denied guilt during a subsequent interrogation, or that he confessed, or that a specific other lineup member confessed. Among those who had made a selection but were told that another lineup member confessed, 61% changed their identifications—and did so with confidence. Among those who had correctly not made an initial identification, 50% went on to select the confessor.

The criminal justice system presumes the independence of different types of evidence. But does this presumption characterize the realities of criminal investigation? The basic and forensic psychology research described above suggests the possibility that confessions have the power to corrupt other evidence, further enhancing its impact on judges and juries. To determine if this phenomenon, amply demonstrated in the laboratory, also occurs in actual cases, Kassin, Bogart, and Kerner (2012) conducted an archival analysis of DNA exonerations from the Innocence Project case files. To test the “corruptive confessions” hypothesis, they compared the number and kind of errors made in wrongful conviction cases containing a false confession with those in which there was no confession. This analysis indicated that additional errors were present in 78% of false confession cases; that false confessions were often accompanied, in order of frequency, by invalid or improper forensic science (63%), by mistaken eyewitness identifications (29%) and by untruthful snitches or informants (19%); and that in 65% of confession cases that contained multiple errors, the confession was obtained first rather than later in the investigation. Of particular interest to psychologists is that the most common problem in DNA-based wrongful convictions is the eyewitness identification error, which was present in 75% of cases in the Innocence Project sample. Using this latter subsample as a point of comparison, Kassin et al. (2012) compared eyewitness and confession cases and found that the latter contained more additional errors overall, more forensic science errors, and more informant errors (see Table 2).

It is interesting that the most common means of corroboration for false confessions comes from bad forensic science, which was present in nearly two thirds of these cases. As a result of improprieties in crime laboratories across the country and the alarming frequency with which errors have surfaced in wrongful convictions, the National Academy of Sciences (2009) recently published a highly critical assessment of a broad range of forensic disciplines such as those involving ballistics, hair and fiber analysis, impression evidence, handwriting, and even fingerprints. The National Academy of Sciences concluded that there are problems with standardization, reliability, accuracy, and error and that there is the potential for contextual bias. In an article on “The Genetics of Innocence,” Hampikian,

Table 2

Percentages of "Other Evidence" Errors in DNA Exoneration Cases That Contained Either a False Confession or a Mistaken Eyewitness

Case error	Forensic-science error	Informant error	No other errors
False confessions ($N = 42$)	67	24	31
Mistaken eyewitnesses ($N = 163$)	45	6	52

Note. Within each column, the percentages are significantly different at $p < .05$. Adapted from "Confessions That Corrupt: Evidence From the DNA Exoneration Case Files" by S. M. Kassir, D. Bogart, and J. Kerner, 2012, *Psychological Science*, 23, p. 43. Copyright 2012 by Association for Psychological Science.

West, and Akselrod (2011) found that invalid forensic science testimony was found in DNA exoneration cases in areas as highly regarded as serology (38%), hair comparison (22%), and even fingerprint comparison (2%). Clearly, the presence of a confession and the perception of guilt thus formed constitute the kind of strong contextual bias that can skew expert judgments in these domains.

One out of five false confession cases contained testimony from a jailhouse snitch or other type of incentivized informant claiming to have overheard the defendant confess. Snitching is a commonplace, clandestine, and insufficiently regulated "dirty little secret" in the criminal justice system (Natapoff, 2009). In the first documented wrongful conviction case in U.S. history, in 1819, two brothers in Vermont were convicted and sentenced to death for murder when a cellmate testified that one of the brothers had confessed to him. For his testimony, the snitch was freed—as were the brothers when the alleged victim turned up alive in New Jersey (Warden, 2004). Recent research confirms the fear arising from this practice: In a series of studies, incentives increased the rate at which participants falsely alleged that their lab partner had confessed to causing the experimenter's computer to crash (Swanner & Beike, 2010; Swanner et al., 2010).

The bias set into motion by confession is not a mere laboratory phenomenon—and it can have grave consequences. In the Barry Laughman case described earlier, the defendant confessed to rape and murder during an unrecorded interrogation. The next day, serology tests showed that Laughman had Type B blood; yet the semen recovered from the victim was from a Type A secretor. Aware that Laughman had confessed, the state forensic chemist went on to propose four "novel" theories, none grounded in science, to explain away the mismatch. On the basis of his confession, Laughman was wrongfully convicted and imprisoned for 16 years (see http://www.innocenceproject.org/Content/Barry_Laughman). Another egregious instance occurred in the 2004 trial of Tyler Edmonds in Mississippi. In that case, 13-year-old Edmonds confessed that he had physically assisted his older sister in shooting her husband. Supporting what had become a hotly contested confession, the state pathologist who conducted the autopsy on the victim testified that the gunshot wound suggested a bullet fired by two persons pulling the trigger simultaneously. Highly critical of this expert's unfounded

opinion, the Mississippi Supreme Court overturned the conviction (*Tyler Edmonds v. State of Mississippi*, 2007). Edmonds was then retried and acquitted.

The studies described thus far have shown that confessions can spawn other incriminating evidence, creating an illusion of corroboration. It is important to note, however, that this effect may underestimate the problem in two ways. First, just as confessions can taint other evidence, other evidence can taint confessions as well. Indeed, there are numerous studies as well as anecdotal support for the proposition that innocent people can be induced to confess by the true or false presentation of an eyewitness, a failed polygraph, or other incriminating evidence (Gudjonsson & Pearce, 2011; Kassir et al., 2010; Kassir & Kiechel, 1996). Second, there may be instances where false confessions also serve to suppress exculpatory evidence. At present, only anecdotal data are available on this point. In the Laughman case, two witnesses approached police to insist that they had seen the victim alive after the confessed murder was alleged to have occurred. Yet police sent the witnesses home, telling them "You must have seen a ghost." In a second case, DNA exoneree John Kogut named several alibi witnesses he was with on the night of the murder of which he was accused. Research shows that it is not easy for people to generate and validate accurate alibis for a specific time and place (Olson & Charman, 2011). Yet Kogut managed to do so. Initially, his alibi witnesses confirmed his whereabouts. They later withdrew their support, however, once informed that he had confessed. Systematic research is needed to test this phenomenon and the conditions under which exculpatory evidence is suppressed by confession.

Do False Confessions Corrupt the Truth-Seeking Process?

In addition to corrupting the evidence upon which fact finders render judgments of guilt, confessions may also adversely affect the truth-seeking process by which justice is administered. Confession evidence is highly and uniquely polarizing when it reaches the courts. On the one hand, confessions have long been considered a gold standard in evidence. In the words of one legal scholar, "The introduction of a confession makes the other aspects of a trial in court superfluous" (McCormick, 1972, p. 316). On the other hand, the confessions presented at trial are those that defendants have invariably

retracted, typically accompanied by the contentious claim that they were coerced by police.

In light of the power of confessions, one wonders if defense lawyers in such cases feel pessimistic if not outright helpless, encouraging their clients to plead guilty and allocating relatively few of their precious resources to discovery and trial. “War stories” from proven false confession cases provide an anecdotal basis for this hypothesis. In addition, one wonders if defense claims of police coercion and contamination, which challenge the centerpiece of the government’s case, lead some prosecutors to redouble efforts to procure other forms of incriminating proof, even if questionable in credibility. Once again, a number of proven false confession cases provide an anecdotal basis for this possibility.

To test the hypothesis that confessions corrupt the truth-seeking process, Kassin and Kukucka (2012) conducted an archival analysis of the first 273 DNA exoneration cases from the Innocence Project files, the total number as of September 2011. They compared false confession cases with cases in which there was no confession on instances of “bad lawyering” and “government misconduct” as classified on a per-case basis by the Innocence Project. Consistent with predictions, false confession cases were more likely to involve bad defense lawyering than were nonconfession cases (9.09% vs. 3.38%) and somewhat more likely to involve government misconduct (21.21% vs. 15.46%). Combined, these differences suggest that confession cases skew the adversarial process in ways that are detrimental to the defense. These archival findings are preliminary, not conclusive, and the associations found do not uncover the causal nexus between confessions to police and the subsequent behavior of counsel. The implications, however, are sobering. At this point, more research is needed to retest the hypothesis using surveys, interviews, and experimental methodologies.

Perhaps an even more dramatic effect on process concerns the possibility that false confessions undermine a defendant’s opportunity to get his or her proverbial day in court. Using the Innocence Project database, Redlich (2010) found that exonerees who had falsely confessed were four times more likely to plead guilty than were those in the same population who had not confessed. Although based on a small number of guilty pleas, this pattern has continued. Out of 289 DNA exonerations posted by the Innocence Project (E. West, personal communication, March 30, 2012), false confession cases were significantly more likely to be resolved by a guilty plea (25.97%) than were nonconfession cases (3.78%). This difference suggests that many innocents who confess ultimately surrender rather than assert a defense. This is no small matter. Pleading guilty preempts the safeguards inherent in a trial by jury—a process in which a defendant is presumed innocent, the burden is on the state to prove guilt beyond a reasonable doubt, and accusing witnesses can be cross-examined. Pleading guilty also makes it more difficult later for a defendant to gain postconviction scrutiny and assert factual innocence.

Implications for Law, Justice, and Wrongful Convictions

The literature on wrongful convictions, buttressed by research on the dispositional and situational causes of false confessions, has inspired various calls for systemic reform. In particular, research has compelled the conclusion that the video recording of entire interrogations is a necessary safeguard—indeed, it is the primary recommendation in the recent American Psychology-Law Society White Paper (Kassin et al., 2010). Other recommendations have focused on the protection of vulnerable suspect populations (e.g., a requirement that minors be accompanied by a professional advocate, preferably an attorney) and the reform of certain police interrogation practices (e.g., a ban on the false evidence ploy and limits on the use of minimization themes that communicate leniency). As noted earlier, APA has recently weighed in on other matters pertaining to expert testimony, DNA testing, and eligibility for compensation.

Pretrial Corroboration Requirements

The research described in this article has far-reaching implications for criminal law and the safety nets designed to prevent miscarriages of justice. In particular, corroboration requirements are deeply rooted. In a pretrial rule founded in common law in England, many states require that confessions be corroborated as a precondition for admissibility. The rule was designed to prevent false confessions, to incentivize police to continue to investigate a case after obtaining a confession, and to safeguard against the tendency of juries to view confessions as dispositive of guilt regardless of the circumstances under which they were obtained (Ayling, 1984).

According to John Reid and Associates, a Chicago-based firm that has trained over half a million professional interrogators over the past 65 years, there are three means of corroborating a confession (Inbau et al., 2013). The weakest is *rational corroboration*, in which the suspect recounts “a detailed description of how the crime was committed, why it was committed, and perhaps how the suspect felt after committing the crime” (Inbau et al., 2013, pp. 356–357). The second means of support is *dependent corroboration*, which comes from proof of a suspect’s guilty knowledge and ability to produce facts that were purposely withheld from all suspects and the media. The third and strongest is *independent corroboration*, which comes from extrinsic evidence consistent with (e.g., an eyewitness) or, better yet, generated by the confession (e.g., the location of the murder weapon or stolen property).

In principle, a corroboration requirement designed to ensure that only trustworthy confessions are used at trial represents an important potential safeguard. But the research cited in this article casts serious doubt as to the diagnosticity of these measures. It now appears that most police-induced false confessions within the database of DNA exonerations contain details about the crime that were allegedly withheld from suspects, thereby suggesting that the confessor had guilty knowledge and providing false dependent corroboration (Garrett, 2010). In these instances,

it is now clear that information was purposefully or unwittingly communicated to innocent suspects through the process of interrogation (Inbau et al., 2013). Most false confessions also contain elements of rational corroboration in the form of crime details on how, why, and with what effect the crime was committed, often including apologies and expressions of remorse (Appleby et al., 2011). Studies also now show that confessions, once taken, can corrupt lay witnesses and forensic experts, thus fostering an illusion of independent corroboration as well (Kassin et al., 2012).

The “Harmless Error” Analysis

Corroboration is also vitally important at the appellate level. In *Arizona v. Fulminante* (1991), the U.S. Supreme Court ruled that an erroneously admitted confession does not, as in the past, automatically entitle a convicted defendant to a new trial. Invoking the principle of “harmless error,” the Court ruled that appeals courts reviewing disputed confession cases must determine, first, if a trial error occurred and, second, if that error was prejudicial or harmless (for a history of the harmless error rule, see Bilaisis, 1983). Operationally, the Court stated that even if a confession was coercive and its admission at trial erroneous, the conviction could be maintained if other evidence was so compelling that the jury would still have found the defendant guilty beyond a reasonable doubt.

Over the years, several legal scholars have criticized *Fulminante* on constitutional grounds, out of fear that it will encourage coercive methods of police interrogation, and on the argument that appeals court judges are ill-equipped by intuition, due in part to hindsight biases, to objectively estimate the strength of a prosecutor’s case and the cumulative or “harmless” nature of the confession in dispute. Skepticism is justified on the question of whether appeals court judges can perform this retrospective analysis to determine how a jury would have voted in the absence of the known confession. In a study described earlier, Wallace and Kassin (2012) presented judges with a case summary in which the state’s evidence was strong or weak and that was accompanied by a high- or low-pressure confession or none at all. The judges, like mock juries, voted to convict the confessor even in the high-pressure condition they deemed coercive. On the harmless error question, however, these same judges reacted in the prescribed manner: They determined both that the admission at trial of the high-pressure confession was erroneous and that the error was prejudicial in its effect on the jury when the totality of other evidence did not form a sufficient basis for conviction.

It appears that judges appreciate how juries are impacted by confessions. However, a serious problem still lurks: The harmless error doctrine—that an erroneously admitted confession can prove harmless when other evidence is sufficient to support a jury’s conviction—rests on the core assumption that the alleged other evidence is independent of that confession. Indeed, according to Garrett (2010), appellate courts that conducted postconviction reviews of several confessors who were later exonerated had affirmed the convictions by citing the “overwhelming nature of the evidence against them and describing in detail

the nonpublic and ‘fully corroborative’ facts they each reportedly volunteered” (p. 1107).

In light of studies showing that confessions can taint the judgments of polygraph examiners, latent fingerprint experts, eyewitnesses, and others, and the archival analysis of DNA exonerations indicating that many proven false confessions are accompanied by other subsequently collected evidentiary errors, doubt has been cast over that assumption of independence. It now appears that although a confession can be “subtracted” from the trial record, its influence persists. The courts must therefore consider the proposition that confessions they perceive to have been coerced and erroneously admitted corrupt the very evidence later used to make the confessions appear cumulative and hence harmless. The result: a perception of corroboration that is more illusory than real.

The Supreme Court’s *Fulminante* opinion may be flawed on a second front. In reversing the past practice of automatically reversing convictions in which a coerced confession was admitted at trial, the Court asserted that confessions should not be treated differently from other evidence—that such errors do not constitute a “structural defect” in a defendant’s ability to get a fair trial (e.g., akin to a lack of competent counsel, government misconduct, or an impartial judge). Although more data are needed to address this claim, recent analyses suggest that such defects are more likely to be found in wrongful convictions in which false confessions were in evidence than in nonconfession cases.

Corroboration Inflation

Taken together, research suggests that judges, juries, and others are doomed to believe the false confessions of innocent people not only because the phenomenon strongly violates common sense but because of *corroboration inflation*—a tendency for confessions to produce an illusion of support from other evidence. This appearance of support can come from the details of the confession statement itself in the form of dependent and rational corroboration, offering “proof” of the confessor’s guilty knowledge—and it can also come from extrinsic evidence from lay and expert witnesses whose judgments were tainted by the confession. In both cases, the net effect is to weaken the safeguards designed to protect the accused confessor at the pretrial, trial, and appellate levels.

There are three important points to note about corroboration inflation and its potential to increase the risk of wrongful conviction. First, there is more than one mechanism by which a confession may influence other evidence. One possibility is that subsequent judgments are inadvertently tainted by mere knowledge of the confession and the cognitive confirmation biases resulting from that knowledge (for a review of research on confirmation biases, see Nickerson, 1998; for a review of “tunnel vision” in criminal justice, see Findley & Scott, 2006). A second possibility is that knowledge of the confession and the presumption of guilt it creates increase the *motivation* of lay witnesses and experts to help police and prosecutors implicate the suspect. Just as people tend to see what they

expect to see, recent studies indicate that people also see what they *want* to see (Ask & Granhag, 2007; Balcetis & Dunning, 2006). A third possibility is that the confession effect occurs because of biases by police seeking to procure support for their previously taken and recanted confession. This process is suggested by research showing that non-blind mock investigators often lead witnesses, albeit inadvertently, to falsely identify their suspect (Greathouse & Kovera, 2009). All these mechanisms are plausible. Without making subjective judgments about the mental states of police and witnesses, however, it may not be possible to tease apart these various sources of the effect in actual cases.

A second point about corroboration inflation is that confession is not the only form of evidence persuasive enough to produce false support in these ways. Beginning with the first wave of DNA exonerations, it has been clear that eyewitness mistakes constitute the most common problem in wrongful convictions (Brewer & Wells, 2011; Wells, Memon, & Penrod, 2006; Wells et al., 1998). In fact, many wrongful convictions contain two or more mistaken eyewitnesses who express high levels of certainty in their identifications. These multiple errors can occur independently when the suspect physically resembles the perpetrator—as in the mistaken identification of Ronald Cotton by Jennifer Thompson (Thompson-Cannino, Cotton, & Torneo, 2009). In some instances, however, eyewitnesses may influence one another, as demonstrated in numerous studies (Gabbert, Memon, & Allan, 2003; Shaw, Garven, & Wood, 1997; Skagerberg, 2007). To further complicate matters, eyewitnesses who have been tainted by extrinsic information cannot accurately estimate the extent of the influence, which suggests that self-report cannot be used to diagnose the corruption once it has occurred (Charman & Wells, 2008).

Third, it is important to realize that not all evidence is equally malleable or subject to corroboration inflation. Paralleling classic research indicating that expectations can color judgments of people, objects, and other stimuli that are ambiguous as opposed to those that compel a particular perception, forensic research indicates that ambiguity is a moderating condition. Asked to report on an event or make an identification decision on the basis of a memory trace that cannot be recovered, eyewitnesses are particularly malleable when confronted with evidence of a confession (Hasel & Kassin, 2009). This phenomenon was illustrated in the case against Amanda Knox. When police first interviewed Knox's British roommates, not one reported that there was bad blood between Knox and the victim. After Knox's highly publicized confession, however, the girls brought forth new "memories," telling police that Kercher was uncomfortable with Knox and the boys she would bring home (Burleigh, 2011).

Prior expectations can also bias interpretations of sensory stimuli such as auditory speech—but only when the recordings are degraded in quality and the stimuli are phonologically ambiguous, such as the words *gum* and *gun* (Lange et al., 2011). The same is true of the judgments of polygraph examiners—again, when the physiological test

data are ambiguous, not when they contain physiological arousal patterns strongly indicative of truth or deception (Elaad et al., 1994). Within the forensic domains critiqued by the National Academy of Sciences (2009), the potential for confession-induced corroboration inflation is real, more so than previously imagined. In an article titled "The Vision in 'Blind' Justice," Dror and Cole (2010) noted that many forensic judgments involve matching a visual pattern left at a crime scene with a sample taken from a suspect (e.g., shoe prints, tool marks, bite marks, tire marks, handwriting, ballistics). The prototype is fingerprint identification, a forensic "science" long considered nearly perfect (Cole, 2001). Yet no two fingerprint impressions are identical even if lifted from the same source and finger because of variations in skin elasticity, the amount of pressure applied, the material on which the print was left, and other variables. And in real life, most fingerprints are partial and distorted, called *latent* prints. Dror and Charlton (2006) thus found that evidence of a confession led fingerprint experts to alter some judgments they had previously made. As illustrated in the two-trial ordeal of Amanda Knox and Raffaele Sollecito—where court-appointed DNA experts at her second trial flatly contradicted the original results (Povoledo, 2011)—even DNA testing, considered the best of the forensic sciences, is subject to judgment bias when samples are too small or when complex mixtures are analyzed (Dror & Hampikian, 2011).

Conclusion

There are two problems with false confessions. The first is that certain suspect characteristics and police practices can conspire to induce innocent people to confess to crimes they did not commit. The second problem is that false confessions, once taken, arouse a strong inference of guilt, thereby unleashing a chain of confirmation biases that make the consequences difficult to overcome despite innocence.

Supported by 100 plus years of basic psychology and the research reviewed herein, confession-induced corroboration inflation challenges a core premise in law. Both pretrial corroboration requirements and a harmless error analysis on appeal rest on the assumption that the corroborating evidence on record is nonredundant and independent of the confession. It now appears that this assumption is often incorrect, that the other evidence may be tainted by confession, and that the appearances of corroboration at pretrial and the sufficiency of evidence on appeal may be more illusory than real. Going forward, this conclusion has important implications for how criminal investigations are conducted (e.g., use of procedures designed to ensure that lay and expert witnesses are "blind" as to whether the suspect has confessed) and how the evidence, once gathered, is later evaluated in the courts (e.g., probing for the possibility of contamination across items of evidence that are allegedly independent and corroborative).

In recent years, psychologists have been critical of the problems with accuracy, error, subjectivity, and bias in various types of criminal evidence—prominently including eyewitness identification procedures, police interrogation

practices, and the so-called forensic identification sciences, all leading Saks and Koehler (2005) to predict a “coming paradigm shift.” With regard to confessions, it now appears that this shift should encompass not only reforms that serve to minimize the risk of false confessions but measures designed to minimize the rippling *consequences* of those confessions—as in the case of Amanda Knox and others who are wrongfully convicted.

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