

Research Article

On the Presumption of Evidentiary Independence

Can Confessions Corrupt Eyewitness Identifications?

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ABSTRACT—*A confession is potent evidence, persuasive to judges and juries. Is it possible that a confession can also affect other evidence? The present study tested the hypothesis that a confession will alter eyewitnesses' identification decisions. Two days after witnessing a staged theft and making an identification decision from a lineup that did not include the thief, participants were told that certain lineup members had confessed or denied guilt during a subsequent interrogation. Among those participants who had made a selection but were told that another lineup member confessed, 61% changed their identifications. Among those participants who had not made an identification, 50% went on to select the confessor when his identity was known. These findings challenge the presumption in law that different forms of evidence are independent and suggest an important overlooked mechanism by which innocent confessors are wrongfully convicted: Potentially exculpatory evidence is corrupted by a confession itself.*

Since 1992, the Innocence Project has used postconviction DNA testing to help exonerate more than 200 innocent prisoners—a sample that reveals the tip of an iceberg in wrongful convictions. Research has shown that mistaken eyewitness identifications are the most common source of error, a factor in three quarters of these cases (Wells, Memon, & Penrod, 2006). Other recurring problems are flawed forensic tests, informants who lie, prosecutorial and police misconduct, bad lawyering, and false confessions—the latter being a contributing factor in 25% of wrongful convictions later overturned through new tests on old DNA evidence (Innocence Project, 2008a).

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False-confession cases represent a breakdown at three levels of decision making (see Kassin, 2005; Kassin & Gudjonsson, 2004). First, police often target innocent people for interrogation by making confident but erroneous prejudgments of deception. Second, in the interrogation room, most innocents waive their Miranda rights, and some confess in response to such tactics as the presentation of false evidence (Kassin & Kiechel, 1996) and minimization (Russano, Meissner, Narchet, & Kassin, 2005). Third, false confessions can fool judges and juries. It is understandable that people reflexively trust confessions, as they do other statements against self-interest. However, given that other evidence presented during a full trial is likely to support the innocent defendant, these cases raise disturbing questions concerning exculpatory evidence that was either not persuasive to the jury or not available to the defense.

From a psychological standpoint, it is troubling that juries convict innocent confessors, often despite physical evidence that does not match the defendant, contradictory accounts of witnesses, alibis, and other exculpatory cues. However, a voluminous body of research on cognitive confirmation biases indicates that people tend to overlook, discount, or assimilate new information that contradicts their existing beliefs (see Nickerson, 1998; for a discussion of this phenomenon in criminal investigations, see Risinger, Saks, Thompson, & Rosenthal, 2002). Studies thus show that confessions are highly persuasive (Kassin & Neumann, 1997) and boost the conviction rate even when jurors see them as coerced (Kassin & Sukel, 1997), and even when they are presented secondhand by informants who are motivated to lie (Neuschatz, Lawson, Swanner, Meissner, & Neuschatz, 2008).

In cases containing false confessions, an even more disturbing possibility is that actual exculpatory evidence will never be presented because it will be suppressed or altered by the confession itself. The legal system presumes that various lay and expert witnesses furnish evidence that is independent, so that one piece of evidence is not “tainted” by another. Yet the cog-

nitive confirmation processes that affect juries may also corrupt witnesses who are apprised of confessions. There is anecdotal support for this possibility. In one case, Illinois defendant Michael Evans was convicted of rape and murder on the basis of a lone eyewitness identification until DNA testing established his innocence. Afterward, the witness revealed that she had harbored doubts about her identification. “But then I was told there was a confession,” she said. “And that’s how they convinced me that there was more to it than just me” (*Michael Evans v. City of Chicago, et al.*, 2006, p. 274). In a second case, Pennsylvania defendant Barry Laughman’s confession to rape and murder was contradicted by blood-typing evidence. The state forensic chemist went on to concoct four “theories,” none grounded in science, to explain away the mismatch. Sixteen years later, Laughman was set free (Innocence Project, 2008b). Recent empirical research also suggests that confessions can corrupt other evidence. Dror and Charlton (2006) re-presented fingerprint experts with pairs of prints from a prior case. Instructed that the suspect had confessed (which suggested a match) or was in custody when the crime was committed (which suggested an exclusion), the experts changed 17% of their previously correct decisions.

In the study reported here, we tested the provocative hypothesis that a confession will lead eyewitnesses to change their identification decisions and their confidence in those decisions. The experiment was conducted in two phases. In Phase 1, participants witnessed a live staged crime, after which they provided a written description of the culprit, an identification decision from a target-absent lineup, and a rating of confidence. In Phase 2, participants returned 2 days later to confirm their decisions. Those who made an identification were randomly assigned to learn that the individual they identified confessed, that all suspects denied guilt, that the individual they identified denied guilt, or that a specific other lineup member confessed. Participants who correctly rejected the lineup were randomly assigned to learn that all suspects denied guilt, that an unspecified other lineup member confessed, or that a specific other lineup member confessed. All participants then rerated their confidence and revisited their initial decisions.

METHOD

Phase 1

Two hundred sixty undergraduates received partial course credit for participating. Scheduled in 2- to 5-person groups, they were told that they would take part in a study on persuasion techniques. The experimenter left the lab for supplies, during which time a White adult male or female walked in, took a laptop computer from the desk, left, and shut the door. This “thief” was in full view for approximately 30 s.

Moments later the experimenter returned, “discovered” that the laptop was missing, and feigned distress. Immediately, the

experimenter said that he or she knew that a crime would be staged as part of a large-scale study on criminal investigations. The experimenter explained that he or she did not know who had taken the laptop, and that he or she was to assume the role of a detective, collect eyewitness information, interrogate a predetermined set of suspects, and decide whom to charge. Thus, the experimenter asked participants to help “solve the crime” correctly.

Participants were asked to examine a six-person target-absent photographic lineup and to indicate “Which of these people, if any, stole the laptop today?” Finally, they rated their confidence in that decision, both on a scale from 1 (*not certain at all*) to 10 (*extremely certain*).

Phase 2

Participants returned individually 2 days later, ostensibly to discuss their identification decisions with the experimenter, who was still trying to solve the crime. The experimenter stated that he or she had interrogated a list of predetermined suspects and reviewed all the eyewitness reports, but had some lingering questions.

At this point, the procedure differed, depending on whether or not the participant had made an identification in Phase 1. In the former case, after confirming the participant’s initial decision, and as determined by random assignment, the experimenter indicated that (a) the person identified by the participant had confessed, (b) all suspects had adamantly denied involvement, (c) the suspect identified by the participant had adamantly denied involvement, or (d) a particular suspect—but not the one identified by the participant—had confessed. In cases of confession, participants were shown a handwritten, signed admission to the mock crime: “I went into Room 477 and took the laptop off the desk. I returned it to the experimenter’s office right after, though. I’m sorry if what I did was wrong.”

In the case of a witness who did not make an identification in Phase 1, the experimenter confirmed that the participant did not make a prior identification and then, as determined by random assignment, indicated that (a) all suspects had adamantly denied involvement, (b) an unspecified suspect from the lineup had confessed, or (c) a specified suspect from the lineup had confessed. In the two confession conditions, participants were shown the same handwritten and signed statement described in the previous paragraph.

Following this manipulation, participants rerated their confidence in their original decision on the same scale used in Phase 1. Whether or not they had made a prior identification, all participants were then allowed to reconsider their decision. Those participants who made different identifications at Phase 1 and Phase 2 were asked to indicate their confidence in the second identification. Finally, all participants were fully debriefed and thanked.

RESULTS

Of the 260 students who took part in Phase 1, 237 returned for Phase 2. Thirty-one had to be excluded, because they were suspicious, knew the thief, or observed a session in which the experimenter or the thief misplayed his or her role in ways that undermined the cover story. Hence, all analyses were based on 206 witnesses, 173 of whom did and 33 of whom did not make an initial identification. Although three thieves and experimenters were used, neither variation interacted with the independent variable on any dependent measures.

Witnesses Who Made an Identification in Phase 1

Identifications

Results supported our main hypothesis. Witnesses changed their identifications as a function of feedback on interrogations, $\chi^2(3, N = 173) = 44.92, p < .001, \phi = .51$. Table 1 shows that when witnesses were told that all suspects denied the crime, only 11.62% changed their original identifications (and 88.38% affirmed them). The number of changes decreased nonsignificantly to 2.44% (vs. 97.56% affirmations) among witnesses instructed that the person they identified confessed, $\chi^2(1, N = 84) = 2.67, p = .10, \phi = .18$. Among those told that the person they identified denied the crime, however, the number of changes increased significantly to 27.91% (vs. 72.09% affirmations), $\chi^2(3, N = 86) = 3.59, p = .05, \phi = .35$. And in the most astonishing result, 60.86% of witnesses who were told that somebody else confessed went on to change their identifications (vs. 39.14% who affirmed their original identifications)—in each and every case identifying the confessor. This latter rate of change was significantly greater than that observed in all other conditions, $\chi^2(1, N = 89) = 23.10, p < .001, \phi = .51$; $\chi^2(1, N = 87) = 33.31, p < .001, \phi = .62$; and $\chi^2(1, N = 89) = 9.76, p = .002, \phi = .33$, respectively.

Confidence in Initial Identifications

Witnesses rated their confidence in their initial identifications at Phase 1 and then rerated that confidence at Phase 2 following the feedback manipulation. These data were analyzed within a

TABLE 1
Results for Witnesses Who Made an Initial Identification: Percentage Who Changed Their Identification in Phase 2

Condition	Percentage who changed their identification	95% confidence interval
Person identified confessed	2.44 _a	-2.28-7.08
All suspects denied involvement	11.62 _a	2.05-21.21
Person identified denied involvement	27.91 _b	14.50-41.32
Other person confessed	60.86 _c	46.77-74.97

Note. Percentages not sharing a common subscript differ at $p < .05$.

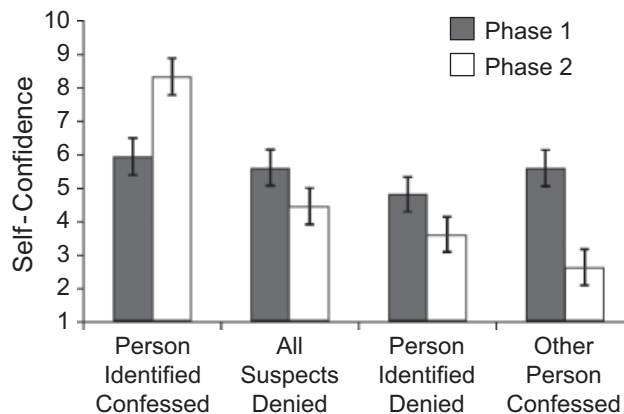


Fig. 1. Mean Phase 1 and 2 ratings of confidence in the initial identification as a function of condition (for witnesses who made an identification during Phase 1). Error bars show 95% confidence intervals derived separately from within-subjects *t* tests for each condition.

4 (feedback condition) \times 2 (phase) analysis of variance (ANOVA) with repeated measures on the second factor. Overall, mean confidence was 5.14. Across conditions, a repeated measures main effect indicated that confidence decreased from Phase 1 to Phase 2 ($M_s = 5.50$ and 4.77 , respectively), $F(1, 169) = 46.60, p < .001$, Cohen's $f = .38$. There was also a significant main effect for condition, $F(3, 169) = 25.62, p < .001$, Cohen's $f = .68$, and a highly significant interaction, $F(3, 169) = 55.42, p < .001$, Cohen's $f = .99$.

Figure 1 shows that among witnesses told that the person they identified confessed, confidence increased from Phase 1 to Phase 2 ($M_s = 5.95$ and 8.34), $t(42) = 7.34, p < .001, d = 1.28$. In contrast, confidence decreased among those told that all suspects denied the crime ($M_s = 5.63$ and 4.47), $t(42) = 5.46, p < .001, d = 0.50$, or that the person they identified denied the crime ($M_s = 4.84$ and 3.63), $t(42) = 4.30, p < .001, d = 0.60$. Results paralleled the identification results in that witnesses who were told that someone else confessed exhibited the steepest decline ($M_s = 5.61$ and 2.65), $t(42) = 8.31, p < .001, d = 1.51$. In short, witnesses became most confident when the person they selected was said to have confessed and least confident when someone else confessed.

Self-Reported Explanations

When asked to express their confidence in words, 93.5% of participants who changed their identification sought to explain why. As coded by two independent raters ($\kappa = .79$), these spontaneous self-reports revealed that 53.5% of participants in this group volunteered that they were truly convinced by the feedback, not just complying with it (e.g., "His face now looks more familiar than the one I chose before"; "This person's face matches more of the face I envision in my mind").

Witnesses Who Did Not Make an Identification in Phase 1

Identifications

During Phase 1, 33 witnesses correctly chose not to make an identification from the target-absent array. Upon their return,

these witnesses were told that all suspects denied the crime, that someone unspecified confessed, or that a specified person confessed. As Table 2 shows, none of the 9 witnesses in the all-denials condition changed their nonidentification. Yet 44.67% and 50% of those in the unspecified- and specified-confessor conditions, respectively, changed their decision and misidentified an innocent suspect, $\chi^2(1, N = 21) = 6.30, p = .01, \phi = .55$; $\chi^2(1, N = 21) = 7.88, p = .005, \phi = .61$. In the specified-confessor condition, all of the new identifications were of the suspect who had allegedly confessed.

Confidence in Initial Identification Decision

Overall, witnesses who correctly declined to make an identification at Phase 1 were more confident ($M = 6.71$) than those who incorrectly made an identification ($M = 5.50$), $t(204) = 3.15, p = .002, d = 0.85$. A 3 (feedback condition) \times 2 (phase) mixed ANOVA revealed no significant main effects—no change in confidence from Phase 1 to Phase 2, $F(1, 30) = 1.45, p = .24$, Cohen’s $f = .05$, or as a function of feedback, $F(2, 30) = 2.55, p = .10$, Cohen’s $f = .17$. There was, however, a significant two-way interaction, $F(2, 30) = 5.86, p = .007$, Cohen’s $f = .39$. Figure 2 shows that witnesses’ confidence in their correct rejections increased in the all-denials condition ($M_s = 6.89$ and 8.44 in Phase 1 and Phase 2, respectively) and decreased in the two confession conditions (unspecified-confessor condition: $M_s = 6.96$ and 5.75 in Phase 1 and 2; specified-confessor condition: $M_s = 6.42$ and 4.58).

DISCUSSION

Recent years have revealed a disturbing number of cases in which innocent confessors are later exonerated. These cases raise profound questions concerning the relative lack of impact that exculpatory evidence had on all decision makers. We believe there are two mechanisms by which confessions derive power. As mock-jury studies demonstrate, the most obvious problem is that confessions corrupt decision makers through an

TABLE 2
Results for Participants Who Rejected All Lineup Members in Phase 1: Percentage Who Identified a Lineup Member in Phase 2

Condition	Percentage who made an identification in Phase 2	95% confidence interval
All suspects denied involvement	0.00 _a	—
Unspecified suspect confessed	44.67 _b	13.78–69.56
Specified suspect confessed	50.00 _b	21.71–78.29

Note. Percentages not sharing a common subscript differ at $p < .05$.

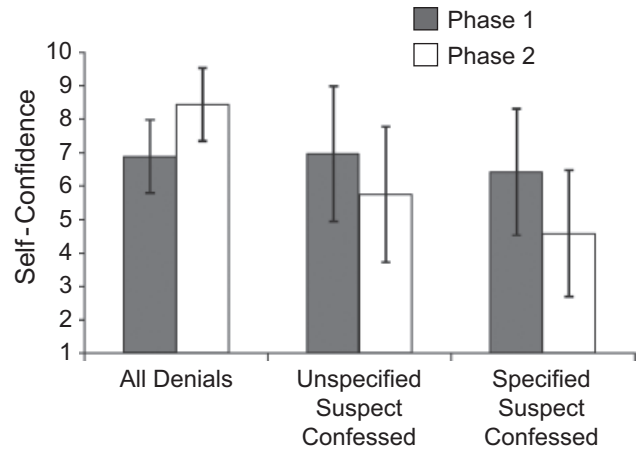


Fig. 2. Mean Phase 1 and 2 ratings of confidence in the initial correct rejection as a function of condition (for witnesses who did not make an identification during Phase 1). Error bars show 95% confidence intervals derived separately from within-subjects t tests for each condition.

array of cognitive confirmation biases. The research reported in this article points to an invisible and pernicious second possibility—that confessions can corrupt the evidence itself.

Despite the presumption in law that different types of evidence are independent, and consistent with anecdotal reports from actual cases, the present study indicated that witnesses were highly influenced by feedback about confessions and denials. Among witnesses told that the person they identified had confessed, confidence increased significantly. Among those told that a different lineup member had confessed, a majority changed their identifications and picked the confessor. In fact, half of the witnesses who correctly declined to make an identification in Phase 1 misidentified the confessor in Phase 2, often explaining that they recalled seeing him commit the crime.

One might argue that these findings are limited by the use of college students, a mock crime, and identification decisions that lacked high-stakes consequences. It is important to note, however, that the results closely parallel those of recent research showing that witnesses’ confidence in their perception experiences, memories, and identifications can be inflated by post-identification feedback from investigators and co-witnesses—even among real witnesses and even when the identification is incorrect (e.g., Wells & Bradfield, 1998; Wright & Skagerberg, 2007; for a meta-analytic review, see Douglass & Steblay, 2006). These findings also point to an important but previously overlooked mechanism by which innocent confessors may be wrongfully convicted: Potentially exculpatory evidence is corrupted by the confession itself. Drizin and Leo (2004) observed that multiple confessions to the same crime occurred in 30% of proven false-confession cases, wherein police used one false confession to leverage others. Consistent with research indicating that decision making is “bidirectional”—that evidence influences conclusions, which, in turn, influence the evaluation of other evidence (Simon, Snow, & Read, 2004)—the present study extends this type of effect one giant step further, indicating

that a confession can influence not only other suspects, but independent eyewitnesses as well.

There are two ways for confessions to corrupt other evidence. Most noticeably, they may enable police to procure corroboration through additional confessions, eyewitness reports, or other incriminating evidence. Perhaps less apparent is that confessions may also suppress exculpatory evidence, leading individuals who had provided alibis to doubt their own recollections and forensic experts to interpret physical evidence differently than they would otherwise. At this point, systematic research is needed to determine if the effects on eyewitnesses would extend to other types of evidence. In this regard, it is noteworthy that whereas physical evidence is immutable (once collected and preserved, it can always be retested), an eyewitness's identification decision cannot later be revisited without contamination. Once informed of a confession, an eyewitness is forever tainted.

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