

Law and Human Behavior

Does Video Recording Alter the Behavior of Police During Interrogation? A Mock Crime-and-Investigation Study

Saul M. Kassin, Jeff Kukucka, Victoria Z. Lawson, and John DeCarlo

Online First Publication, July 22, 2013. doi: 10.1037/lhb0000047

CITATION

Kassin, S. M., Kukucka, J., Lawson, V. Z., & DeCarlo, J. (2013, July 22). Does Video Recording Alter the Behavior of Police During Interrogation? A Mock Crime-and-Investigation Study. *Law and Human Behavior*. Advance online publication. doi: 10.1037/lhb0000047

Does Video Recording Alter the Behavior of Police During Interrogation? A Mock Crime-and-Investigation Study

Saul M. Kassin, Jeff Kukucka, Victoria Z. Lawson, and John DeCarlo
John Jay College of Criminal Justice

A field study conducted in a midsized city police department examined whether video recording alters the process of interrogation. Sixty-one investigators inspected a staged crime scene and interrogated a male mock suspect in sessions that were surreptitiously recorded. By random assignment, half the suspects had committed the mock crime; the other half were innocent. Half the police participants were informed that the sessions were being recorded; half were not. Coding of the interrogations revealed the use of several common tactics designed to get suspects to confess. Importantly, police in the camera-informed condition were less likely than those in the -uninformed condition to use minimization tactics and marginally less likely to use maximization tactics. They were also perceived by suspects—who were all uninformed of the camera manipulation—as trying less hard to elicit a confession. Unanticipated results indicated that camera-informed police were better able to discriminate between guilty and innocent suspects in their judgments and behavior. The results as a whole indicate that video recording can affect the process of interrogation—notably, by inhibiting the use of certain tactics. It remains to be seen whether these findings generalize to longer and more consequential sessions and whether the camera-induced differences found are to be judged as favorable or unfavorable.

Keywords: interviewing, interrogation, confessions, video recording

In criminal law, confession evidence is common, potent, and highly regarded as a matter of common sense. Yet confessions are fallible. Although the precise prevalence rate is unknown, it is clear, dating back to the Salem witch trials of 1692, that countless numbers of people have been wrongfully prosecuted and convicted after confessing to crimes they did not commit. At present, according to the Innocence Project, false confessions were a contributing factor in approximately 30% of the more than 300 DNA exonerations in its current database (www.innocenceproject.org/; Garrett, 2011).

To understand this phenomenon, its causes, and its consequences, researchers have focused on empirical questions designed to address four questions that often arise. The first question concerns the fact that innocent people are often misidentified for interrogation during an initial interview because they are perceived to be lying, often on the basis of verbal and nonverbal cues that are not, as an empirical matter, diagnostic of truth and deception. A good deal of research thus shows that police—despite training and experience—tend to make judgments of deception, with confidence, that are frequently in error (for recent reviews, see Vrij, 2008; Vrij, Granhag, & Porter, 2010).

The second question concerns both the dispositional characteristics of vulnerable suspects (such as youth, intellectual impairment, and mental illness) and the interrogation tactics sometimes used by police (such as prolonged isolation, the presentation of false evidence, and the types of minimization themes that imply leniency) that can increase the risk of false confessions (for reviews, see Gudjonsson, 2003; Kassin, 2008; Kassin & Gudjonsson, 2004).

The third question concerns the extent to which suspects of varying ages and mental states can comprehend and apply their constitutional rights to silence and to counsel. As provided in *Miranda v. Arizona* (1966), the U.S. Supreme Court required police to inform suspects in custody of these rights and to obtain a voluntary, knowing, and intelligent waiver before interrogation. Sometimes, a suspect's waiver fulfills these criteria; at other times it does not (Grisso, 1981; Oberlander & Goldstein, 2001; Rogers et al., 2007).

A fourth question concerns the consequential power of confession evidence in court, where research suggests that a confession leads jurors to convict, often despite the conditions under which it was taken—for example, even when it is perceived to have been coerced (e.g., Kassin & Sukel, 1997) and even when it is reported secondhand by an informant who is incentivized to lie (Neuschatz, Lawson, Swanner, Meissner, & Neuschatz, 2008). Moreover, recent research indicates that confessions, once taken, have the power to corrupt other evidence (e.g., Kassin, Bogart, & Kerner, 2012; for a review, see Kassin, 2012).

Having identified some of the problems associated with confession evidence, researchers have begun to assess possible solutions. In that vein, a number of social scientists, legal scholars, and practitioners have recommended a policy that favors the electronic recording of entire suspect interviews and interrogations—not just

Saul M. Kassin, Jeff Kukucka, and Victoria Z. Lawson, Department of Psychology, John Jay College of Criminal Justice; John DeCarlo, Department of Law and Police Sciences, John Jay College of Criminal Justice.

This work was supported in full by a grant of the National Science Foundation, Division of Law and Social Sciences, to the first author (SES # 1021442).

Correspondence concerning this article should be addressed to Saul M. Kassin, Department of Psychology, John Jay College of Criminal Justice, New York NY 10019. E-mail: skassin@jjay.cuny.edu

the resulting confessions. In the recent American Psychology-Law Society White Paper, Kassin et al. (2010) concluded with a strong recommendation for the mandatory electronic recording of interrogations—suggesting, in fact, that this reform has a potential to solve a range of problems associated with false confessions and the consequences that follow from them (also see Lassiter & Meissner, 2010).

There is an historical and ongoing debate concerning this practice (see Drizin & Reich, 2004). On the one hand, the recording of full interrogations is anathema to many police professionals—including the Federal Bureau of Investigation, Drug Enforcement Agency, and the Bureau of Alcohol, Tobacco, Firearms and Explosives, which to this day prohibit the practice (see Boetig, Vinson, & Weidel, 2006; Sullivan, 2008)—and some trained by John Reid & Associates, which, until recently, had opposed the recording of interrogations (Inbau, Reid, Buckley, & Jayne, 2001). To this day, the issue evokes resistance. Some bases for opposition are pragmatic—concerning the scope of such a requirement; evidentiary consequences in the event of failure; economic costs of equipment, supplies, and storage; and issues of consent, especially in two-party consent states. Other bases of opposition center on concerns for how such a policy will affect police detectives and suspects in the interrogation room and judges and juries later in the courtroom.

On the other hand, such a policy has drawn advocates from a diverse range of perspectives (e.g., American Bar Association, 2004; Buckley & Jayne, 2005; The Justice Project, 2007). Several years ago, a National Institute of Justice study found that one third of large police and sheriff's departments throughout the United States were already videotaping at least some interrogations or confessions and that their experiences were positive (Geller, 1993). Similar support was obtained in a paper-and-pencil survey of 631 police investigators from all over the country (Kassin et al., 2007). Currently, statutory provisions or supreme court rules require the recording of custodial interrogations for at least some types of felonies in 15 states and the District of Columbia (for a compendium of laws pertaining to the recording of interrogations, see Sullivan, 2012). Most importantly, Sullivan (2004) interviewed police from hundreds of departments that record custodial interrogations and consistently found that they are enthusiastically supportive. Among the collateral benefits often cited are that recording permitted detectives to focus on the suspect rather than on taking copious notes; increased accountability; provided a replay of a suspect's statement that sometimes revealed incriminating comments that were initially overlooked; reduced the amount of time detectives spent in court defending their interrogation practices; and increased public trust in law enforcement (also see Sullivan, Vail, & Anderson, 2008).

These survey results have proved encouraging, but self-reported satisfaction data are limited by the absence of objective behavioral measures of *actual impact*. These data are also subject to the criticism that respondents represent a self-selected group of practitioners already engaged in the practice of recording interrogations and perhaps biased to self-justify their practices. Therefore, as an empirical matter, self-reported satisfaction levels cannot fully address actual positive effects on the behavior and decision-making of police, suspects, judges, and juries. Similarly, self-reported satisfaction levels cannot address important points of resistance (other than economic) among those who oppose a vid-

eotaping requirement—namely, that police and suspects are inhibited or otherwise adversely affected by the presence of a camera during interrogation; and that jurors will react with greater distrust of confessions once exposed to the interrogation tactics used to get these statements.

The present study was designed to address the question of whether video recording inhibits or otherwise alters the behavior of police during interrogation. As a general rule, American police are influenced by the nine-step Reid technique of interrogation (Inbau et al., 2001)—which is essentially reducible to three processes: (1) *isolation and custody*, typically in a private interrogation room; (2) *positive confrontation*, in which the suspect is accused of the crime, presented with evidence, real or manufactured, and blocked from denial; and (3) *minimization*, in which the crime is morally justified and excused by a sympathetic interrogator (for critiques, see Kassin, 2006; Leo, 2008; for a social psychological perspective, see Davis & O'Donahue, 2004). In the United States and Canada, both observational studies (Feld, 2013; King & Snook, 2009; Leo, 1996) and surveys of police investigators (Kassin et al., 2007) confirm that these techniques are commonly used.

Would a video recording requirement affect the tone and process of interrogation, the techniques used, and ultimately the outcomes? For police, the “public” nature of a recorded interrogation should increase accountability—before the district attorney (who will decide on whether to prosecute), the judge (who will decide on voluntariness), and ultimately a jury (which will render a verdict). Over the years, basic social psychology research has shown that accountability cues—as triggered by the presence of an audience—induce an attentional state of self-awareness, measurable, for example, by the subject's use of first-person pronouns, and inhibit an actor's tendency to engage in socially undesirable behaviors (Carver & Scheier, 1981; Duval & Wicklund, 1972). Consistent with self-awareness theory, a concern often expressed within law enforcement is that police would become self-conscious and possibly inhibited by the presence of a camera, fearing that others might find their tactics objectionable. The FBI has argued that the presence of recording equipment will interfere with an agent's “rapport-building technique” (see Sullivan, 2008). If so, then although the presence of a camera may reduce interrogative pressure and thereby lessen the risk of eliciting false confessions from innocent suspects, it may likewise make it more difficult to secure true confessions from perpetrators.

With the cooperation of a police department in a midsized Northeastern city, we sought to test the hypothesis that the recording of interrogations will alter the processes of interrogation—in particular, by inhibiting the use of harsh tactics. In a study conducted at the police station, investigators were recruited to inspect a staged crime scene and interrogate a mock suspect. By random assignment, half the suspects had actually committed the mock crime; the other half were innocent. Although all sessions were surreptitiously video-recorded, half the investigators were informed as such; half were not.

This 2 (suspect guilty vs. innocent) \times 2 (police camera-informed vs. uninformed) factorial design enabled a test of the hypothesis that awareness of the camera would alter the manner in which interrogation is conducted. As in Kassin, Goldstein, and Savitsky (2003), the tapes in all conditions were coded for the length of interrogation; the number and types of discrete tactics

used; and the amount of pressure exerted, as perceived by the investigator and suspect. Although our procedure was not designed to elicit self-incriminating statements (i.e., suspects were highly incentivized to maintain their innocence and a 20-min time limit was set for interrogation), the outcome of each session was also assessed (denial, partial, or full confession). Suspects' impressions of their investigator and the process were also measured in a postinterrogation questionnaire.

Method

Participants

Participants in this study were 62 police investigators from a midsized Northeastern department and 62 male-only community members recruited online via Craigslist to serve as mock suspects. Police participants were recruited during daily roll calls and additionally via word-of-mouth once the study was ongoing. One police participant chose to withdraw, leaving $n = 61$ interrogator–suspect pairs who completed the study.

Police participants, 95.08% of whom were male, ranged in age from 33 to 67 ($M = 44.25$, $SD = 7.52$) and had an average of 17.36 years of experience in law enforcement ($SD = 7.36$; Range = 4 to 40). A total of 62.30% had received formal training in suspect interviewing and interrogation, and 80.33% estimated having conducted more than 100 suspect interviews during the course of their careers. Results showed that neither years of experience nor formal training was significantly associated with use of the tactics for which we coded with one exception: Those who had received formal training in interrogation were more likely to use the leniency tactic described below, $\chi^2(1) = 4.10$, $p = .043$, $\phi = .26$ (only the one tactic was affected by training; we did not include training in analyses except to ensure that there were no other differences). Suspects ranged in age from 18 to 66 ($M = 32.85$, $SD = 12.96$). Of the suspect participants, 29.51% had previously been arrested, 18.03% had been interviewed as a crime suspect, and 16.39% had been convicted.

Among the police–suspect pairs, one investigator and two suspects neglected to answer one or more items on the postsession self-report questionnaire, so their data are missing from the relevant analyses. In addition, one interrogation could not be coded for behavioral measures because of a malfunction of the videotaping apparatus; therefore, analyses of tactic usage were based on $n = 60$ interrogations.

Design

By random assignment, each participant pair was assigned to one of four cells produced by a 2 (suspect guilty vs. innocent) \times 2 (police camera informed vs. uninformed) factorial design. First, suspects were randomly assigned either to commit or not to commit a mock theft of cash from a briefcase. Next, suspects were interrogated by a police investigator who was randomly assigned to be informed or not informed that their interrogation session was being video recorded. Follow-up analyses indicated that the police investigators assigned to these two groups did not differ in their age or years of experience (all $ps > .40$). The device used to record these sessions was a mini pinhole camera roughly the size of a postage stamp that was hidden alongside computer equipment on

a desk near the interrogation table. The lens was angled at approximately 30° to capture the fullest possible profile view of the police participant and suspect.

Procedure

Two experimenters were used in each session—one to meet and instruct the police participants, and the other to separately meet and instruct suspect participants and then escort them to the interrogation room upon completion of their task. Each session consisted of five phases: Preexperiment questionnaires, a mock theft, a crime scene investigation, an interrogation, and postinterrogation questionnaires.

Preexperiment questionnaire. After giving their informed consent, with police and suspects still separated, all participants completed brief preexperimental questionnaires. Police were asked for basic demographics (age and gender) and information about their background and training. Suspects were asked for their age and to report whether they had previously been interviewed by police, arrested, or convicted of a crime.

Mock theft. Upon arrival at the police station, the suspect and police participant were taken into separate rooms. One experimenter then instructed the suspect to exit the station through the rear door, walk to a newspaper kiosk, retrieve a newspaper, and reenter the station through the front door. The purpose of asking suspects to retrieve the newspaper was to provide them with an ostensible cover story for why they were in the vicinity of the crime scene before their interrogation.

The experimenter informed each suspect that after exiting through the rear door, they would see an unattended and locked laptop briefcase leaning against the side of the building, with the key left in the lock. Those in the guilty condition were instructed that on their way to the kiosk they should open the briefcase, find a wallet inside, remove a sum of cash from inside the wallet, and hide it somewhere on their person. Suspects in the innocent condition were merely told to take note of the briefcase, but not touch or open it, on their way to the kiosk. Once suspects in the innocent condition had bypassed the briefcase and circled the building, the experimenter opened the briefcase, removed the cash from the wallet, and staged the theft.

After suspects retrieved the newspaper and returned to the front entrance, whether guilty or innocent, the experimenter informed them that they were the target of an investigation into a theft committed on the grounds of the police station and would soon be interviewed by a local detective. All suspects were told that they would receive a base of \$20 for their participation and an additional \$15 if they could convince the detective that they were innocent. If they failed to do so, they were told, they would have to return for another session to receive the second payment (in actuality, all suspects were paid the full \$35 after their session).

Crime scene investigation. Once the suspect returned, the second experimenter informed the police participant that a sum of cash was stolen from a blue vinyl laptop bag outside of the police station and that the crime scene was left exactly as it had been found. Further, they were told that their task was to investigate the crime scene and then question a suspect who was apprehended in the vicinity soon after the theft was committed. We provided no other inculpatory evidence against the suspect aside from the fact that he was in the area at the time.

Police participants were then taken to the crime scene, provided with a notepad and digital camera, and given five minutes to investigate the area. At that point, they reported to an interrogation room, where the experimenter inquired as to whether they wanted hard copies of the photographs they took for interrogation. If they did, the images were printed onto 4 × 6 in. photo paper.

The interrogation. Before the interrogation sessions, police participants were instructed that they would receive \$75 for completing the experiment and an additional \$25 bonus if they elicited a confession from the suspect. The purpose of the “bonus” was twofold: to incentivize police participants to expend effort on their interrogations and to induce the presumption of guilt that by definition accompanies the postinterview process of interrogation. Also at that time, the experimenter told police in the camera-informed condition that their interrogation sessions would be video recorded using a hidden camera. Those in the camera-uninformed condition did not receive this instruction. Although we did not ask the latter group of participants whether they believed they were being videotaped, there is no indication that they did. Indeed, the room used for interrogation was not equipped for recording, no camera was visible, and not a single officer expressed suspicion during debriefing (in fact, one camera-uninformed officer suggested after his participation that we videotape the sessions in future studies).

Police were told that they would have up to 20 minutes to interrogate their suspect and could use as little or as much of that time as they wanted. They were asked to send the suspect out of the room when they had finished. If the interrogation was still ongoing at 20 minutes, the experimenter knocked on the door to signal that it was time to wrap up the session. If the interrogation had not ended after 30 minutes, the experimenter knocked again and asked the police participant to terminate the session in the next few minutes.

After the interrogation, the experimenter returned the suspect to an adjacent room. At that point, both the police participant and suspect completed a postexperimental questionnaire in which they answered questions concerning their perceptions of the interrogation experience. Both sets of participants then received the full payment they were promised and were debriefed fully before being dismissed.

Dependent Measures

Postexperimental questionnaires. Immediately after the interrogation, both suspects and police completed a self-report questionnaire consisting of 12 parallel items regarding their perceptions of the interrogation. Specifically, police were asked to indicate whether they believed the suspect to be guilty or innocent and indicate their confidence in that judgment. They were also asked to rate the credibility of the suspect’s denials, the extent to which he revealed first-hand knowledge, how open and cooperative he was in his demeanor, how anxious he was, whether the suspect made any suspicious or self-incriminating remarks, and whether he made an admission of guilt. With regard to their own interrogation behavior, police rated how hard they tried to get the suspect to confess; how friendly, understanding, and sympathetic they were toward the suspect; how hostile and aggressive they were; and, consequently, how stressful the interrogation was for the suspect.

All ratings were made on a 10-point scale which ranged from 1 (*not at all*) to 10 (*very*).

Suspects answered parallel questions—indicating, for example, whether they believed the interrogator would judge them guilty or innocent and ratings of their confidence in that prediction. They also rated the credibility of their denials, the extent to which they revealed first-hand knowledge, how open and cooperative they were in their demeanor, how anxious they were, whether they made any suspicious or self-incriminating remarks, and whether they made an admission of guilt. With regard to their interrogator’s behavior, suspects rated how hard he or she tried to get the suspect to confess; how friendly, understanding, and sympathetic he or she was; how hostile and aggressive he or she was; and how stressful the interrogation was for them. All ratings were made on 1–10 point scales.

Interrogation tactics. All video recorded interrogations were transcribed by a professional transcription service. In light of past research indicating that the presence of a camera in the courtroom had an initially distracting effect on mock jurors that faded within minutes (Kassin, 1984), we divided each transcript into equal thirds (Times 1, 2, and 3) on the basis of a word count to allow for analysis of changes in tactic use during the course of the interrogation. Two independent condition-blind coders, specifically trained for this task, then coded transcripts by counting the number of times various interrogation tactics were used (afterward, we categorized counts of 0 as “tactic absent” and counts of 1 or more as “tactic present”). As measured by obtaining the same exact number within a count, the coders achieved an overall agreement rate of 89%; disagreements were resolved via discussion between the coders. Across the sets of interrogation tactics, as described below, the mean interrater correlation on these counts was $r = .87$, $p < .0001$ (individual r s ranged from $r = .75$ to $.96$).

A total of 17 interrogation tactics were identified from the transcripts. Based on a previously published factor analysis of self-reported tactic use in a survey of police (Kassin et al., 2007), these tactics were consolidated into four major categories. A fifth category consisted of miscellaneous tactics (note that all quoted examples are taken directly from the transcripts). The first set of tactics, which we labeled *confrontation*, includes outright calling the suspect a liar (e.g., “Now you’re lying to me and you continue to lie to me,” “You sat there lying to me, right to my face”), pointing to inconsistencies in the suspect’s story (e.g., “But you just said you went inside the bag,” “Before you told me you came in through the back”), expressing disbelief in the suspect’s story (e.g., “I don’t think you’re telling me the truth,” “I know you’re not telling me the whole truth”), accusing the suspect of committing the crime (e.g., “I’m convinced that you did it,” “You took the money from the bag”), and interrupting the suspect’s attempts to deny involvement (as denoted by midsentence hyphens in the suspect portions of the transcripts).

The second category, which we called *maximization*, includes threatening the suspect with negative consequences for not confessing (e.g., “If you lie to me. . . I’ll make your life miserable,” “Your baby wouldn’t like to come see you in jail”) and exaggerating the seriousness of the crime (e.g., “The charge is going to be larceny,” “I’m going to put a heavy bond on you”).

The third category was *leniency*, which includes the development of minimization themes that excuse, justify, or otherwise downplay the crime, statements that may lead people to infer

leniency in punishment (e.g., “This is really not that big a deal,” “It was only a few bucks,” “We all make mistakes,” “Times are tough . . . you do what you have to do”) or explicit offers of leniency or outright immunity in exchange for a confession (e.g., “I’m here to help you,” “Just get it over and done with and you could walk out the door,” “I can probably talk to somebody and get you a little slap on the wrist”).

Finally, *false evidence* consists of the bluff (the false assertion that there is evidence to be harvested without the added claim that it implicates the suspect; e.g., “Right now we have our crime scene technicians lifting fingerprints from the bag,” “I’m shortly going to be talking to a witness,” “We’ll be reviewing the video camera to see if you did this or not”) and both general and specific false claims about actual evidence (e.g., “There’s evidence showing that you took the money,” “We have witnesses who identified you,” “You’re on the surveillance tape”).

A number of miscellaneous tactics were also coded. These included engaging in irrelevant small talk with the suspect (e.g., “Do you watch sports? Are you a sports fan?” “Those are good shoes; they’re supposed to be really good for your back”), encouraging the suspect to admit to other illegal behaviors (e.g., “Do you smoke marijuana now? Do you have any on you?” “Ever been arrested for stealing or taking anything? It’s easy for me to look up in the computer”), asking the suspect to implicate someone else (e.g., “Did you happen to speak with anybody who might have come across a blue book bag?” or “Do you think you know who did [take the money]?”), appealing to the suspect’s religion or conscience (e.g., “You took the money, just return it, maybe they’ll appreciate your honesty,” “You know you did it. God knows you did it”), rearranging the room to close the physical distance with the suspect, and flattering the suspect (e.g., “You seem like a nice guy,” “You seem like the kind of guy I could go have a beer with”).

Results

Length of Interrogations

Interrogations lasted on average for 21.58 minutes ($SD = 9.30$; range = 5 min. 18 sec. to 41 min. 1 sec; the distribution of these data was not significantly skewed, $z = 0.76$). The average interrogation also contained 3,312.10 words ($SD = 1,555.33$; range = 814 to 6,523). On average, 62.24% of the words spoken in these sessions were by the interrogator ($SD = 15.31\%$).

A 2 (camera informed vs. uninformed) \times 2 (suspect guilty vs. innocent) factorial ANOVA on interrogation length (in minutes) revealed neither a main effect of Camera, $F(1, 56) = 0.20$, $p = .659$, $d = 0.11$ [95% CI: $-2.22, 2.44$], nor a main effect of Suspect Guilt, $F(1, 56) = 0.82$, $p = .368$, $d = 0.23$ [95% CI: $-2.09, 2.55$]. However, a significant Camera \times Suspect Guilt interaction emerged, $F(1, 56) = 5.37$, $p = .024$, $\eta_p^2 = .09$. Simple effects tests indicated that camera-uninformed police conducted significantly longer interrogations with innocent suspects ($M = 25.87$, $SD = 9.90$) than with guilty suspects ($M = 18.33$, $SD = 8.32$), $t(28) = 2.26$, $p = .032$, $d = 0.85$ [95% CI: $-2.31, 4.02$]. In contrast, camera-informed police exhibited no difference in length for innocent ($M = 19.42$, $SD = 8.95$) and guilty ($M = 22.72$, $SD = 8.93$) suspects, $t(28) = 1.01$, $p = .322$, $d = 0.38$ [95% CI: $-2.71, 3.47$].

A second two-way ANOVA on the percentage of words spoken by the police participants indicated no main effect of Camera, $F(1, 56) = 0.14$, $p = .711$, $d = 0.10$ [95% CI: $-3.74, 3.93$], but there was a main effect of Suspect Guilt, $F(1, 56) = 4.94$, $p = .030$, $d = 0.59$ [95% CI: $-3.09, 4.28$]. Police in all conditions spoke for a greater percentage of the time than did suspects. Although the disparity was greater when the suspects were guilty of the mock crime ($M = 66.56\%$, $SD = 15.87\%$) than when they were innocent ($M = 57.93\%$, $SD = 13.65\%$), the two-way interaction was not significant, $F(1, 56) = 0.11$, $p = .742$, $\eta_p^2 = .00$.

Interrogation Tactics Used

Police used a diverse array of common interrogation tactics. As derived from the number of instances of each tactic usage counted by our coders, we found that the most commonly used specific tactics, in order of frequency, were the bluff (86.67%), minimization (78.33%), establishing rapport via small talk (73.33%), presentations of false evidence (71.67%), explicit offers of leniency (65.00%), and threats of future consequence (63.33%). These tactics are summarized in Table 1.

As noted earlier, individual tactics were combined within four categories: Confrontation, maximization, leniency, and false evidence. First, we coded for each police participant the number of times he or she used at least one of the tactics within each category. For the first three categories, respectively, we then adjusted these values for word count (i.e., number of uses per 1,000 words) to control for the length of the interviews. Because all coding was based on typed transcripts of the recorded sessions, we used word count as a proxy for time. Consistent with this approach, the correlation between these variables was $r[58] = .89$, $p < .0001$. For the fourth (false evidence) category, we counted the number of unique items of evidence (out of a possible five—video surveillance, fingerprints, eyewitness, DNA, or other/unspecified) about which each police participant bluffed or lied at least once. Results showed that 65% of police used at least one confrontation tactic ($M = 0.83$ uses per 1,000 words, $SD = 1.54$), 85% used at least one maximization tactic ($M = 1.08$ uses per 1,000 words, $SD = 1.28$), and 65% used at least one leniency tactic ($M = 1.84$ uses per 1,000 words, $SD = 1.72$). In addition, 95% used at least one false evidence ploy; on average, police bluffed about 1.35 unique items of evidence ($SD = 0.95$), and lied about 1.08 unique items of evidence ($SD = 0.94$).

For each category, we tested a logistic regression model using Camera and Suspect Guilt as categorical predictors of the presence or absence of tactics. To account for possible changes over the course of these interrogations, each session was divided into thirds. As noted earlier, frequency data for the use of tactics from each category were adjusted for word count (i.e., number of uses per 1,000 words). The resulting values were subjected to a 2 (Camera) \times 2 (Suspect Guilt) \times 3 (Time 1, 2, or 3) mixed ANOVA with repeated measures on the last factor.

Confrontation. A logistic regression indicated that Camera was not a significant predictor of the use of confrontation tactics, Wald’s $\chi^2(1) = 0.67$, $p = .413$, OR = 2.00 [95% CI: 0.38, 10.53]. Police were equally likely to use one or more of the confrontation tactics whether they were camera-informed (70%) or not informed (60%) that the session was being recorded. However, Suspect Guilt was a significant predictor of confrontation, Wald’s $\chi^2(1) =$

Table 1
Categorized Interrogation Tactics Used and Their Frequency
Across Conditions

	% Police using this tactic
Confrontation	65.00
Calling the suspect a “liar” or accusing him of “lying”	41.67
Pointing out inconsistencies in the suspect’s story	26.67
Making expressions of disbelief toward the suspect	23.33
Directly accusing the suspect of the theft	20.00
Interrupting the suspect’s denials	11.67
Maximization	65.00
Threatening the suspect with consequences	63.33
Exaggerating the seriousness of the offense	15.00
Leniency	85.00
Offering minimization themes that imply leniency	78.33
Making an explicit offer of leniency for confession	65.00
False evidence	95.00
Bluffs about future evidence	86.67
Video surveillance footage	68.33
Eyewitness identification	23.33
Fingerprints	31.67
DNA	5.00
Other/unspecified	6.67
Lies about existing evidence	71.67
Video surveillance footage	31.67
Eyewitness identification	51.67
Fingerprints	6.67
DNA	0.00
Other/unspecified	18.33
Miscellaneous tactics	
Establishing rapport via small talk	73.33
Encouraging the suspect to admit to other illegal acts	63.33
Asking the suspect to implicate someone else	55.00
Appealing to the suspect’s religion/conscience	46.67
Rearranging the room to sit closer to the suspect	33.33
Praising or flattering the suspect	31.67

Note. Combined data used in all analyses in bold.

4.62, $p = .032$, OR = 6.00 [95% CI: 1.17, 30.30]. Police were more likely to use confrontation tactics with guilty suspects (73.33%) than with innocent suspects (56.67%). This main effect of Suspect Guilt was qualified by a marginal Camera \times Suspect Guilt interaction, Wald’s $\chi^2(1) = 3.34$, $p = .068$, OR = 8.25 [95% CI: 0.86, 79.45]. In the uninformed condition, confrontation was equally likely with guilty and innocent suspects (66.67% & 73.33%, respectively), $\chi^2(1) = 0.16$, $p = .690$, OR = 0.73 [95% CI: 0.15, 3.49]. As depicted in Figure 1, however, police in the camera-informed condition were more likely to use one or more confrontation tactics with guilty suspects (80%) than with innocent suspects (40%), $\chi^2(1) = 5.00$, $p = .025$, OR = 6.00 [95% CI: 1.17, 30.73]. It is important to restate that the camera \times suspect guilt interaction was not quite significant—a result, perhaps, of the small sample size and relative lack of power to detect a significant effect for this comparison (although the effect size was moderate, a post hoc power analysis indicated that power was quite low, $1 - \beta = .448$). With regard to the adjusted (for word count) frequency of confrontation tactic usage, only a significant main effect of Time was found, $F(2, 112) = 5.12$, $p = .007$, $\eta_p^2 = .08$. Post hoc

Bonferroni analyses indicated that confrontation tactics were used more often at Time 2 ($M = 1.40$ per 1,000 words, $SD = 3.29$) than at Time 1 ($M = 0.30$, $SD = 0.83$), $p = .046$. Neither differed from Time 3 ($M = 0.77$, $SD = 1.64$), $ps > .16$. None of the interactions were significant, all $ps > .13$.

Maximization. A logistic regression indicated that neither Camera, Wald’s $\chi^2(1) = 2.52$, $p = .113$, OR = 4.33 [95% CI: 0.71, 26.53], nor Suspect Guilt, Wald’s $\chi^2(1) = 0.53$, $p = .466$, OR = 1.72 [95% CI: 0.14, 2.48], nor the Camera \times Suspect Guilt interaction, Wald’s $\chi^2(1) = 0.29$, $p = .592$, OR = 1.90 [95% CI: 0.05, 5.46], predicted use of maximization tactics. As noted earlier, self-awareness theory would predict an overall camera-induced reduction in the use of the use of harsh tactics such as maximization. To test this hypothesis, we conducted a separate analysis on the camera variable. A chi-square test of independence revealed a marginally significant effect of Camera, $\chi^2(1) = 3.59$, $p = .058$, OR = 2.87 [95% CI: 0.95, 8.70], indicating that police were more likely to use maximization tactics in the camera-uninformed condition (76.67%) than in the informed condition (53.33%). Once again, the marginal level of statistical significance in this comparison may be attributable to an insufficient level of power (computed $1 - \beta = .474$).

With regard to the frequency of maximization usage, a main effect of Time emerged, $F(2, 112) = 10.51$, $p < .0001$, $\eta_p^2 = .16$, with post hoc Bonferroni analyses indicating that maximization was used more at Time 2 ($M = 1.38$ per 1,000 words, $SD = 1.89$) than Time 1 ($M = 0.54$, $SD = 1.17$), $p = .001$, and more at Time 3 ($M = 1.32$, $SD = 1.62$) than Time 1, $p = .001$, but was used equally at Times 2 and 3, $p = 1.00$. A main effect of Suspect Guilt also emerged, $F(1, 56) = 7.15$, $p = .010$, $d = 0.72$ [95% CI: 0.41, 1.01], indicating that police used maximization more often with suspects who were guilty ($M = 1.51$, $SD = 1.48$) than innocent ($M = 0.66$, $SD = 0.87$). These main effects were qualified by a significant Suspect Guilt \times Time interaction, $F(2, 112) = 3.15$, $p = .047$, $\eta_p^2 = .05$. Police used maximization more often with guilty suspects than innocent suspects at Time 2, $t(58) = 2.16$, $p = .035$, $d = 0.57$ [95% CI: 0.11, 1.02], and Time 3, $t(58) = 3.27$, $p = .002$, $d = 0.86$ [95% CI: 0.49, 1.23], but there was no difference at Time 1, $t(58) = 0.94$, $p = .352$, $d = 0.25$ [95% CI: -0.04 , 0.54].

Leniency. A full factorial logistic regression could not be performed on promises of leniency because 100% of police participants in the Camera-Uninformed/Innocent condition used this

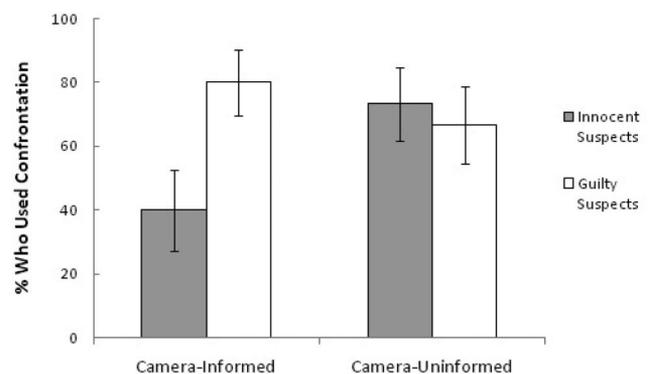


Figure 1. Percentage of police participants who used one or more confrontation tactics in their interrogations.

tactic (lacking a subgroup in this condition that did not use leniency thus made it impossible to test for an interaction). Instead, we fit a main effects-only model. This model indicated that Camera was a significant predictor, Wald's $\chi^2(1) = 4.62, p = .032, OR = 10.60$ [95% CI: 1.23, 91.29]. This effect remained significant even when controlling for formal training in interviewing and interrogation. Police were more likely to suggest leniency in the camera-uninformed condition (96.67%) than in the camera-informed condition (73.33%). Suspect Guilt was not a significant predictor, Wald's $\chi^2(1) = 0.15, p = .703, OR = 1.34$ [95% CI: 0.30, 6.06].

With regard to the frequency of implicit or explicit promises of leniency, all three main effects were significant. First, there was a main effect of Camera, $F(1, 56) = 4.28, p = .043, d = 0.52$ [95% CI: 0.10, 0.93], indicating that police made more suggestions of leniency in the camera-uninformed condition ($M = 2.26$ per 1,000 words, $SD = 1.91$) than in the camera-informed condition ($M = 1.41, SD = 1.41$). Second, a main effect of Suspect Guilt was found, $F(1, 56) = 5.43, p = .023, d = 0.60$ [95% CI: 0.19, 1.01], as more suggestions of leniency were made to guilty suspects ($M = 2.33, SD = 1.83$) than to innocent suspects ($M = 1.35, SD = 1.47$). Third, a main effect of Time emerged, $F(2, 112) = 4.10, p = .019, \eta_p^2 = .07$. Post hoc Bonferroni analyses indicated that more suggestions of leniency were made at Time 2 ($M = 2.22, SD = 2.44$) than at Time 1 ($M = 1.27, SD = 1.89$), $p = .019$, with Time 3 ($M = 1.97, SD = 2.52$) differing neither from Time 1, $p = .169$, nor Time 2, $p = 1.00$. None of the interactions were significant, all $ps > .12$. When we controlled for formal training in interviewing and interrogation, Time was no longer significant; the main effects of Camera and Suspect Guilt remained.

False evidence. A full factorial logistic regression could not be performed on the use of the bluff because 100% of police participants in the Camera-Informed/Innocent condition used this tactic. Instead, we fit a main effects-only model, which indicated that neither Camera, Wald's $\chi^2(1) = 2.11, p = .146, OR = 3.50$ [95% CI: 0.65, 18.86], nor Suspect Guilt, Wald's $\chi^2(1) = 0.00, p = 1.00, OR = 1.00$ [95% CI: 0.22, 4.56], was a significant predictor. Moreover, a 2 (camera informed vs. uninformed) \times 2 (suspect guilty vs. innocent) ANOVA on the number of different kinds of evidence for which bluffs were used (five were identified, as seen in Table 1, so this number could range from 0 to 5) produced no significant effects (Overall $M = 1.35, SD = 0.95$), $F_s < 1$.

With respect to lies about evidence, a logistic regression indicated that neither Camera, Wald's $\chi^2(1) = 0.18, p = .667, OR = 1.45$ [95% CI: 0.26, 8.00], nor Suspect Guilt, Wald's $\chi^2(1) = 2.29, p = .130, OR = 3.50$ [95% CI: 0.69, 17.86], nor the Camera \times Suspect Guilt interaction, Wald's $\chi^2(1) = 1.84, p = .175, OR = 5.09$ [95% CI: 0.48, 53.58], was a significant predictor of lying about evidence. Moreover, a 2 \times 2 ANOVA on the number of different kinds of evidence about which police lied (five were identified so the number could range from 0 to 5) produced no significant main effects or interaction (Overall $M = 1.08, SD = 0.94$), all $ps > .13$.

Miscellaneous tactics. For each of the miscellaneous interrogation tactics listed in Table 1, we tested a separate logistic regression model using Camera and Suspect Guilt as categorical predictors of usage. In each of these models, neither Camera, nor Suspect Guilt, nor the Camera \times Suspect Guilt interaction was a significant predictor. The only finding of note was a nonsignificant Camera \times Suspect Guilt interaction on police engaging in small

talk to establish rapport with the suspect, Wald's $\chi^2(1) = 2.97, p = .085, OR = 8.67$ [95% CI: 0.75, 101.13]. Police in the camera-informed condition tended to make small talk more with guilty suspects (80% vs. 60% for innocent suspects); those in the camera-uninformed condition tended to make small talk more with innocent suspects (86.67% vs. 66.67% for guilty suspects).

Self-Reports

Each continuous item on the self-report questionnaire assessing police and suspect perceptions was subjected to a 2 (camera informed vs. uninformed) \times 2 (suspect guilty vs. innocent) \times 2 (police vs. suspect rating) mixed ANOVA (Source was treated as a within-subjects or "paired-samples" factor). Overall, suspects and police, respectively, rated suspects as moderately anxious ($M_s = 5.27$ & $5.22, SD_s = 2.71$ & 2.44), police as friendly ($M_s = 7.61$ & $7.95, SD_s = 2.42$ & 2.02), police as not hostile ($M_s = 3.47$ & $3.10, SD_s = 2.22$ & 2.06), and the interrogation as a whole as moderately stressful ($M_s = 4.72$ & $5.48, SD_s = 2.78$ & 2.29). We found no significant main effects or interactions on self-reported judgments of suspect anxiety, police friendliness, police hostility, or the stress level of the interrogation.

The most direct self-report test of whether police were influenced by the camera manipulation concerned the question of how hard they tried to elicit a confession. On these perceptions of the interrogator's effort, a significant Camera \times Source interaction emerged, $F(1, 57) = 5.66, p = .021, \eta_p^2 = .09$. This interaction indicated that in the camera-uninformed condition, suspects—none of whom were informed of the camera manipulation—rated police as trying harder to obtain a confession ($M = 8.29, SD = 2.16$) than the police had rated themselves ($M = 7.19, SD = 1.78$), $t(30) = 2.73, p = .011, d = 0.56$ [95% CI: 0.08, 1.05]. In the camera-informed condition, the effort ratings of suspects ($M = 7.27, SD = 2.50$) and police ($M = 7.73, SD = 1.84$) did not differ, $t(29) = -0.91, p = .373, d = -0.22$ [95% CI: $-0.76, 0.33$]. This interaction appears in Figure 2.

Two main effects emerged with respect to ratings of suspect cooperativeness. First, a main effect of Source was found, $F(1, 57) = 11.16, p = .001, d = 0.50$ [95% CI: 0.11, 0.89]. Suspects rated themselves as more open and cooperative ($M = 8.63, SD = 2.17$) than police rated them ($M = 7.52, SD = 2.31$). Second, a main effect of Suspect Guilt was found, $F(1, 57) = 6.50, p = .013, d =$

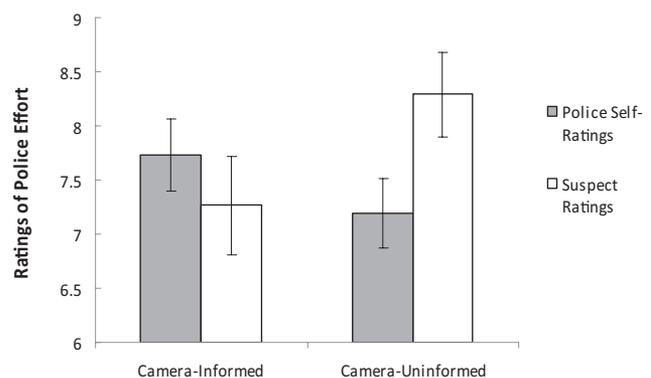


Figure 2. Police and suspect ratings of the police interrogator's effort to get a confession.

0.51 [95% CI: 0.11, 0.90]. Innocent suspects ($M = 8.65$, $SD = 2.08$) were rated by all participants as more cooperative than guilty suspects ($M = 7.52$, $SD = 2.39$). Additional results suggested that whereas camera-uninformed police rated suspects as less cooperative ($M = 7.11$, $SD = 2.47$) than suspects rated themselves ($M = 8.79$, $SD = 1.89$), $t(30) = 3.23$, $p = .003$, $d = 0.77$ [95% CI: 0.24, 1.32], ratings did not differ between camera-informed police ($M = 8.47$, $SD = 2.45$) and suspects ($M = 7.93$, $SD = 2.10$), $t(29) = 1.27$, $p = .214$, $d = -0.24$ [95% CI: -0.80 , 0.32]. This Source \times Camera interaction, however, was not significant, $F(1, 57) = 3.08$, $p = .085$, $\eta_p^2 = .05$.

Perceptions of Guilt

Five questions asked about the suspect's guilt, guilty knowledge, and the credibility of his denials. Across all conditions, 52.46% of police correctly judged the guilt or innocence of the suspect, an accuracy rate that did not exceed chance-level performance, $\chi^2(1) = 0.27$, $p = .606$. Overall, police judged 61.67% of suspects as innocent, and consequently, showed marginally better accuracy when judging innocent suspects (65.52%) than guilty suspects (41.94%), $\chi^2(1) = 3.35$, $p = .067$, OR = 2.63 [95% CI: 0.92, 7.52]; again, the computed power for this comparison was low ($1 - \beta = .448$). Camera-informed police were somewhat more accurate in their guilt judgments (63.33%) than those who were uninformed (43.33%)—but this difference was not significant, $\chi^2(1) = 2.41$, $p = .121$, OR = 2.26 [95% CI: 0.80, 6.36]. Looking at confidence ratings in these judgments, a 2 (camera informed vs. uninformed) \times 2 (suspect guilty vs. innocent) ANOVA yielded no significant main effects or interaction, $F_s < 1$.

Five suspects—all in the guilty condition; four of whom were questioned by camera-uninformed police—confessed to the mock theft during the course of the interrogation.¹ Because it is reasonable to assume that police in these pairs based their guilt-related perceptions on these confessions rather than other aspects of the suspect's behavior, we analyzed these data with the five pairs excluded. In this latter analysis, the overall accuracy of police judgments remained at chance level performance at 49.09%, whereas the percentage of innocent judgments was 67.27%. Within this subsample of cases, police produced more accurate judgments for innocent (65.52%) versus guilty suspects (30.77%), $\chi^2(1) = 6.62$, $p = .010$, OR = 4.27 [95% CI: 1.38, 13.33]. Furthermore, police in the camera-informed condition produced significantly more accurate guilt judgments (62.07%) than those in the uninformed condition (34.62%), $\chi^2(1) = 4.13$, $p = .042$, OR = 3.09 [95% CI: 1.03, 9.31].

Two questions assessed perceptions of self-incrimination (again, the five suspects who confessed and their interrogating officers were excluded from these analyses). On the dichotomous question of whether suspects made any suspicious or incriminating remarks, 29.73% of participants answered affirmatively. Logistic regressions were conducted separately for police and suspects using Camera and Suspect Guilt and the interaction term as categorical predictors. There were no significant effects (all $p_s > .08$). In comparing police and suspects, however, a McNemar chi-square test revealed a highly significant difference, $\chi^2(1) = 12.00$, $p < .0005$, as police were more likely than suspects to report that suspicious remarks were made (41.07% vs. 18.18%, respectively). On the more pointed question of whether the suspect made an

explicit admission of guilt, only one participant answered affirmatively.²

On ratings of the credibility of the suspect's denials and the extent of his guilty knowledge, 2 (camera informed vs. uninformed) \times 2 (suspect guilty vs. innocent) \times 2 (police vs. suspect) mixed ANOVAs were conducted (again, the five suspects who confessed and their interrogating police were excluded). On credibility ratings, a significant main effect for Source indicated that suspects rated their own denials as more credible than police rated them ($M_s = 8.45$ & 5.98 [$SD_s = 1.87$ & 2.45], respectively), $F(1, 51) = 42.34$, $p < .0001$, $d = 1.14$ [95% CI: 0.74, 1.55]. No other main effects or interactions were significant. On ratings of guilty knowledge, a three-way ANOVA also revealed a main effect for Source, $F(1, 52) = 15.35$, $p < .0005$, $d = 0.61$ [95% CI: 0.02, 1.19], as suspects reported having more guilty knowledge than police attributed to them ($M_s = 6.23$ & 4.31 [$SD_s = 3.37$ & 3.01], respectively). This effect was qualified, however, by a significant Source \times Suspect Guilt interaction, $F(1, 52) = 6.10$, $p = .017$, $\eta_p^2 = .11$. Although suspects and police did not differ in guilty knowledge ratings of innocent suspects ($M_s = 6.37$ & 5.62 [$SD_s = 3.43$ & 2.80], respectively), $t(29) = 1.22$, $p = .233$, $d = 0.24$ [95% CI: -0.54 , 1.02], guilty suspects attributed more guilty knowledge to themselves than police did ($M_s = 6.08$ & 2.81 [$SD_s = 3.37$ & 2.55], respectively), $t(26) = 3.92$, $p = .001$, $d = 1.12$ [95% CI: 0.32, 1.91].

Discussion

The present study sought to address the question of whether video recording alters the behavior of police during interrogation. To examine this proposition, we used a mock crime-and-investigation paradigm in which experienced police officers examined a crime scene and interrogated suspects from the community who were guilty or innocent of a mock theft. By random assignment, half the officers were informed that their sessions were surreptitiously being video recorded; the other half were not. The behavior of police during these sessions was assessed in two ways. First, the tapes were coded for duration and for the number and types of discrete interrogation tactics that were used. Second, both police participants and suspects were asked to self-report their impressions of the experience afterward.

Overall, the interrogations lasted for an average of 22 minutes, during which time police participants used an array of tactics that are common in the United States to get suspects to confess—including the bluff, minimization, rapport building, false evidence, offers of leniency, and threats of future consequence. On the primary question of whether video recording would in some way inhibit police, analyses showed that positive confrontation—the

¹ Although this clustering of confessions among guilty suspects in the camera-uninformed condition suggests the possibility that police would exert greater influence in the absence of a camera (or, to put it differently, that they would moderate their influence tactics when they know they are being recorded), the small overall number of confessions precluded a statistical test of this hypothesis.

² With the five confessors included in this analysis, 9.32% answered affirmatively to the question of whether the suspect had made an admission of guilt. Logistic regressions indicated no statistically significant effects for camera and guilt (all $p_s > .21$) and no difference between police and suspects (10.17% vs. 8.47%, respectively).

first and most foundational tactic of the Reid technique (i.e., accusing the suspect of the crime, calling the suspect a liar, interrupting the suspect's denials, expressing disbelief, and pointing out inconsistencies in the suspect's story)—was not affected in a simple way by the camera manipulation. Neither was the presentation of false evidence or other miscellaneous tactics for which we coded. However, police participants informed that they were being recorded were somewhat less likely than those in the camera-uninformed condition to use maximization tactics (i.e., by exaggerating the seriousness of the offense; threatening the suspect with consequences for denial)—by a margin of 53% to 77%. This difference was only of marginal statistical significance, so future research is needed to determine whether this effect is reliable. Police were also less likely to offer or imply leniency (by developing motivational “themes” that provide moral justification or making explicit offers of leniency in exchange for confession)—by a margin of 73% to 97%. This difference was statistically significant.

By questioning participants after each interrogation, we sought to determine whether they *perceived* differences as a function of the camera condition. From these self-reports, we learned that regardless of camera condition both police participants and suspects rated their interrogations as moderately stressful and the suspects during that process as moderately anxious. In addition, both sets of participants rated the police interrogator as more friendly than hostile. In the most direct test of whether police were influenced by the camera manipulation (see Kassin et al., 2003), we asked both sets of participants to rate how hard the interrogator tried to elicit a confession. On this question, all participants perceived a high level of effort. However, a statistically significant interaction showed that whereas police and suspects did not differ in the camera-informed condition, suspects rated police as trying harder to get a confession than the police had rated themselves in the camera-uninformed condition. Consistent with the behavioral differences we had observed, suspects perceived greater police effort in the camera-uninformed than-informed condition (i.e., where police used more minimization and maximization tactics). This result is particularly interesting in light of the fact that suspects—unlike police participants—were not told about the camera manipulation or whether their interrogators were informed or uninformed.

Three additional interrelated findings were not predicted. One pertains to the use of confrontation tactics during interrogation (e.g., as seen in accusatory statements, the interruption of denials, and challenges to inconsistencies). Confrontation tactics are a staple of modern police interrogation and were exhibited in 65% of interrogations in our study. A marginally significant interaction suggested that whereas police used these tactics equally when questioning guilty and innocent suspects in the camera-uninformed condition (67% vs. 73%, respectively), they were more likely to use confrontation on guilty suspects than on innocents in the camera-informed condition (80% vs. 40%, respectively). A similar pattern was obtained on the accuracy of police judgments as to their suspect's guilt. In contrast to prior research indicating that police exhibit a deception bias in their judgments of veracity (Garrido, Masip, & Herrero, 2004; Meissner & Kassin, 2002) police participants in our study were more accurate at judging suspects who were innocent as opposed to guilty of the mock crime. Interestingly, police in the camera-informed condition were

more accurate than those in the camera-uninformed condition—by a statistically significant margin of 62% to 35%. A third similar pattern was found on ratings of how cooperative the suspects were. Overall, police saw suspects as being less cooperative than the suspects saw themselves. However, a nonsignificant interaction suggested that although there was a tendency for this disparity to exist in the camera-uninformed condition, police-suspect ratings did not differ in the camera-informed condition.

To sum up: As compared with suspects' objective status as guilty or innocent, police were more discriminating in their use of confrontation tactics and more accurate when informed that their sessions were being recorded than when not so informed. In their perceptions of the suspect's cooperativeness, police in the camera-informed condition were also more consistent with suspects' self-ratings. Mindful of being recorded, perhaps police in the camera-informed condition were more motivated to attend to cues that betrayed guilt and innocence. Or perhaps their lesser uses of maximization and leniency—typically used indiscriminately, on presumed-guilty perpetrators and innocents alike—altered the behavior of suspects in ways that enabled police to discern the differences. Whatever the mechanism, these results suggest an unanticipated benefit of recording interrogations: Police who knew they were being recorded, as opposed to those who did not, exhibited behaviors and made judgments that were somewhat more diagnostic of their suspect's guilt and innocence.

In testing whether the process of video recording would alter the way that police conduct their interrogations, we theorized that the “public” nature of a recorded interrogation would increase a sense of accountability. Over the years, research has shown that accountability cues—as triggered by the presence of a camera or an audience—induce an attentional state of self-awareness and inhibit the tendency to engage in socially undesirable behaviors (Carver & Scheier, 1981; Duval & Wicklund, 1972). Consistent with self-awareness theory, a concern often expressed within law enforcement is that police would become self-conscious and possibly inhibited by the presence of a camera, fearing that others might find their tactics objectionable. Thus, the FBI has argued that recording would interfere with an agent's rapport-building techniques (see Sullivan, 2008). In the fourth edition of *Criminal Interrogation and Confessions*, Inbau et al. (2001) expressed the specific concern that “there would be numerous occurrences where a defense expert would offer the opinion that, based on an analysis of the videotaped interrogation, the defendant's will appeared to be overcome” (p. 396).

As variously stated, the inhibition hypothesis was supported by three key results—namely, that camera-informed police were less likely than uninformed police to use minimization tactics, less likely to use maximization tactics, and were perceived by suspects as trying less hard to elicit a confession. These findings raise two sets of questions. The first set concerns their generalizability to actual investigations. On the one hand, it seems reasonable to suppose that these effects, observed in 22-min mock interrogations that would later be observed only by researchers, not a judge or jury, would underestimate the impact of recording interrogations with actual suspects that last longer, engage higher stakes, and may well be presented in court. On the other hand, it seems reasonable to suppose that the brevity of the sessions led us to *overestimate* the effect by not providing the time needed for police to habituate to the presence of a recording device. Habituation—a simple form

of “learning” characterized by a decline in an elicited response to a stimulus—is a basic phenomenon. Various labels “acclimatization,” “accommodation,” “adaptation,” and “fatigue,” habituation is “as old as humankind” and has been observed in all species, from lower organisms up to human infants and adults (Thompson, 2009). Indeed, Kassin (1984) found in a forensic context that the presence of cameras in the courtroom distracted jurors initially, as measured by their recollection of evidence and arguments, but that the effect quickly faded. At this point, the extent of generalizability in this regard remains an open empirical question.

The second question raised by our findings concerns whether the effects we observed are to be construed as favorable or unfavorable. This is a difficult question to answer. Inbau et al. (2001) expressed concern that police will be inhibited from the kinds of interrogation tactics they are trained to use, implying that they may be less effective at eliciting confessions. Yet proponents of investigative interviewing, who advocate a less confrontational approach (e.g., Milne & Bull, 1999; Williamson, 2006), and researchers who have found that minimization and maximization tactics can increase the risk of false confession (e.g., Kassin & McNall, 1991; Leo & Ofshe, 1998; Russano et al., 2005; for an overview, see Kassin et al., 2010), would argue that inhibiting the most aggressive tactics constitutes a desirable outcome. Setting aside differences in the values attached to false positive and negative errors, we would argue that the answer hinges on the strictly empirical but yet untested outcome question of whether the practice of recording in any way alters the diagnosticity of the statements that police produce from guilty and innocent suspects (for a test and discussion of diagnosticity, see Russano, Meissner, Narchet, & Kassin, 2005). The paradigm we created (i.e., the mock crime was a minor theft, suspects were incentivized to maintain their innocence, and a 20-min time limit was set for interrogation) did not elicit enough confessions to assess diagnosticity (only 8.33% of all suspects confessed). Future research on the behavioral effects of video recording should address this next important issue.

With regard to future research, we think it is important to comment on the mock-crime-and-investigation paradigm used in this experiment. In recent years, a number of researchers have called for a partnership between the academic community and law enforcement practitioners (e.g., Meissner, Hartwig, & Russano, 2010). This study represents an instance of such a collaboration. At the time, one of us (J.D.) was a police chief in a small city not far from the city where our data were collected with cooperation from a fellow chief. Half of our participants were actual officers asked to conduct the kind of investigation for which they are trained and experienced—and they did so in their own precinct. The other participants were civilian community members recruited online.

The use of real officers as participants and the police station as a venue clearly enhanced the ecological validity of the paradigm. We should note, however, that these features are not without risk. It is difficult to enlist the participation of off-duty police officers; enlisting on-duty officers during the day requires supervisory approval and scheduling availability. Hence, our sample was smaller than we had hoped it would be. An additional problem to be noted concerns an “adverse event” that occurred in a pretesting of the paradigm. On that occasion, a police participant during a mock interrogation searched and wanted to arrest one of our suspects who had arrived with marijuana in his pocket. The event was resolved without arrest but we amended our protocol. Before

their arrival, we reminded suspects that the study takes place in a police station so “please do not bring any illegal substances with you to the session.” In task instructions to police, we added that no actual crime has taken place, that the suspect is a community member, that they are not to search the suspect, that the suspect is entitled to terminate the session and leave at any time, and that the investigation should cover “only the mock crime pertaining to this experiment.” In short, future researchers should beware that the ecological validity of this paradigm is both a benefit and a complicating factor that requires vigilance.

References

- American Bar Association. (2004). Resolution 8A – Videotaping custodial interrogations. Approved February, 9, 2004.
- Boetig, B. P., Vinson, D. M., & Weidel, B. R. (2006). Revealing incommunicado. *FBI Law Enforcement Bulletin*, 75, 1–8.
- Buckley, D. M., & Jayne, B. C. (2005). *Electronic recording of interrogations*. Eagle River, WI: Hahn Printing, Inc.
- Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation: A control-theory approach to human behavior*. New York, NY: Springer-Verlag. doi:10.1007/978-1-4612-5887-2
- Davis, D., & O’Donahue, W. (2004). The road to perdition: Extreme influence tactics in the interrogation room. In W. O’Donahue (Eds.), *Handbook of forensic psychology* (pp. 897–996). San Diego, CA: Academic Press. doi:10.1016/B978-012524196-0/50037-1
- Drizin, S. A., & Reich, M. J. (2004). Heeding the lessons of history: The need for mandatory recording of police interrogations to accurately assess the reliability and voluntariness of confessions. *Drake Law Review*, 52, 619–646.
- Duval, S., & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.
- Feld, B. C. (2013). *Kids, cops, and confessions: Inside the interrogation room*. New York, NY: New York University Press.
- Garrett, B. L. (2011). *Convicting the innocent: Where criminal prosecutions go wrong*. Cambridge, MA: Harvard University Press. doi:10.4159/harvard.9780674060982
- Garrido, E., Masip, J., & Herrero, C. (2004). Police officers’ credibility judgments: Accuracy and estimated ability. *International Journal of Psychology*, 39, 254–275. doi:10.1080/00207590344000411
- Geller, W. A. (1993). *Videotaping interrogations and confessions: National Institute of Justice Research in Brief*. Washington, DC: U. S. Department of Justice.
- Grisso, T. (1981). *Juveniles’ waiver of rights: Legal and psychological competence*. New York, NY: Plenum Press. doi:10.1007/978-1-4684-3815-4
- Gudjonsson, G. H. (2003). *The science of interrogations and confessions: A handbook*. Chichester, England: Wiley.
- Inbau, F., Reid, J., Buckley, J. P., & Jayne, B. C. (2001). *Criminal interrogation and confessions* (4th ed.). Gaithersburg, MD: Aspen.
- Innocence Project. (2012). Retrieved from <http://www.innocenceproject.org>
- Kassin, S. M. (1984). TV cameras, public self-consciousness, and mock juror performance. *Journal of Experimental Social Psychology*, 20, 336–349.
- Kassin, S. M. (2006). A critical appraisal of modern police interrogations. In T. Williamson (Ed.), *Investigative interviewing: Rights, research, regulation* (pp. 207–228). Devon, UK: Willan Publishing.
- Kassin, S. M. (2008). The psychology of confessions. *Annual Review of Law and Social Science*, 4, 193–217. doi:10.1146/annurev.lawsocsci.4.110707.172410
- Kassin, S. M. (2012). Why confessions trump innocence. *American Psychologist*, 67, 431–445. doi:10.1037/a0028212

- Kassin, S. M., Bogart, D., & Kerner, J. (2012). Confessions that corrupt: Evidence from the DNA exoneration case files. *Psychological Science*, *23*, 41–45. doi:10.1177/0956797611422918
- Kassin, S. M., Drizin, S. A., Grisso, T., Gudjonsson, G. H., Leo, R. A., & Redlich, A. D. (2010). Police-induced confessions: Risk factors and recommendations. *Law and Human Behavior*, *34*, 3–38. doi:10.1007/s10979-009-9188-6
- Kassin, S. M., Goldstein, C. J., & Savitsky, K. (2003). Behavioral confirmation in the interrogation room: On the dangers of presuming guilt. *Law and Human Behavior*, *27*, 187–203. doi:10.1023/A:1022599230598
- Kassin, S. M., & Gudjonsson, G. H. (2004). The psychology of confession evidence: A review of the literature and issues. *Psychological Science in the Public Interest*, *5*, 33–67. doi:10.1111/j.1529-1006.2004.00016.x
- Kassin, S. M., Leo, R. A., Meissner, C. A., Richman, K. D., Colwell, L. H., Leach, A.-M., & La Fon, D. (2007). Police interviewing and interrogation: A Self-report survey of police practices and beliefs. *Law and Human Behavior*, *31*, 381–400. doi:10.1007/s10979-006-9073-5
- Kassin, S. M., & McNall, K. (1991). Police interrogations and confessions: Communicating promises and threats by pragmatic implication. *Law and Human Behavior*, *15*, 233–251. doi:10.1007/BF01061711
- Kassin, S. M., & Sukel, H. (1997). Coerced confessions and the jury: An experimental test of the “harmless error” rule. *Law and Human Behavior*, *21*, 27–46. doi:10.1023/A:1024814009769
- King, L., & Snook, B. (2009). Peering inside a Canadian interrogation room: An examination of the Reid model of interrogation, influence tactics, and coercive strategies. *Criminal Justice and Behavior*, *36*, 674–694. doi:10.1177/0093854809335142
- Lassiter, G. D., & Meissner, C. A. (Eds.). (2010). *Police interrogations and false confessions: Current research, practice, and policy recommendations*. Washington, DC: American Psychological Association. doi:10.1037/12085-000
- Leo, R. A. (1996). Inside the interrogation room. *Journal of Criminal Law and Criminology*, *86*, 266–303. doi:10.2307/1144028
- Leo, R. A. (2008). *Police interrogation and American justice*. Cambridge, MA: Harvard University Press.
- Leo, R. A., & Ofshe, R. J. (1998). The consequences of false confessions: Deprivations of liberty and miscarriages of justice in the age of psychological interrogation. *Journal of Criminal Law and Criminology*, *88*, 429–496. doi:10.2307/1144288
- Meissner, C. A., Hartwig, M., & Russano, M. B. (2010). The need for a positive psychological approach and collaborative effort for improving practice in the interrogation room. *Law and Human Behavior*, *34*, 43–45. doi:10.1007/s10979-009-9205-9
- Meissner, C. A., & Kassin, S. M. (2002). “He’s guilty!”: Investigator bias in judgments of truth and deception. *Law and Human Behavior*, *26*, 469–480. doi:10.1023/A:1020278620751
- Milne, R., & Bull, R. (1999). *Investigative interviewing: Psychology and practice*. Chichester, England: Wiley.
- Miranda v. Arizona, 384 U.S. 436. (1966).
- Neuschatz, J. S., Lawson, D. S., Swanner, J. K., Meissner, C. A., & Neuschatz, J. S. (2008). The effects of accomplice witnesses and jailhouse informants on jury decision making. *Law and Human Behavior*, *32*, 137–149. doi:10.1007/s10979-007-9100-1
- Oberlander, L. B., & Goldstein, N. E. (2001). A review and update on the practice of evaluating Miranda comprehension. *Behavioral Sciences and the Law*, *19*, 453–471. doi:10.1002/bsl.453
- Rogers, R., Harrison, K., Shuman, D., Sewell, K., & Hazelwood, L. (2007). An analysis of Miranda warnings and waivers: Comprehension and coverage. *Law and Human Behavior*, *31*, 177–192. doi:10.1007/s10979-006-9054-8
- Russano, M. B., Meissner, C. A., Narchet, F. M., & Kassin, S. M. (2005). Investigating true and false confessions within a novel experimental paradigm. *Psychological Science*, *16*, 481–486.
- Sullivan, T. P. (2004). *Police experiences with recording custodial interrogations*. Chicago, IL: Northwestern University Law School, Center on Wrongful Convictions.
- Sullivan, T. P. (2008). The consequence of law enforcement officials’ failure to record custodial interviews as required by law. *The Journal of Criminal Law and Criminology*, *99*, 215–234.
- Sullivan, T. P. (2012). A Compendium of state and federal statutes, court rulings, departmental practices, national organizations’ policy statements, and law review articles regarding electronic recording of custodial interviews of felony suspects. *Judicature*, *95*, Whole No. 5.
- Sullivan, T. P., Vail, A. W., & Anderson, H. W. (2008). The case for recording police interrogation. *Litigation*, *34*, 1–8.
- The Justice Project. (2007). *Electronic recording of custodial interrogations: A policy review*. Washington, DC: The Justice Project.
- Thompson, R. F. (2009). Habituation: A history. *Neurobiology of Learning and Memory*, *92*, 127–134. doi:10.1016/j.nlm.2008.07.011
- Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and opportunities*. Chichester, England: Wiley.
- Vrij, A., Granhag, P. A., & Porter, S. (2010). Pitfalls and opportunities in nonverbal and verbal lie detection. *Psychological Science in the Public Interest*, *11*, 89–121. doi:10.1177/1529100610390861
- Williamson, T. (Ed.). (2006). *Investigative interviewing: Rights, research, regulation*. Devon, UK: Willan Publishing.

Received October 19, 2012

Revision received May 17, 2013

Accepted May 18, 2013 ■