



Interviewing suspects: Practice, science, and future directions

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Crime suspects in the USA are typically questioned in a two-step process aimed, first, at behavioural lie detection during a pre-interrogation interview, followed by the elicitation of a confession during the interrogation itself (in Great Britain, the practice of investigative interviewing does not make this sharp distinction). Research conducted on the first step shows that police investigators often target innocent people for interrogation because of erroneous but confident judgments of deception. Research on the second step shows that innocent people are sometimes induced to confess to crimes they did not commit as a function of certain dispositional vulnerabilities or the use of overly persuasive interrogation tactics. Citing recent studies, this paper proposes that laboratory paradigms be used to help build more diagnostic models of interrogation. Substantively, we suggest that the British PEACE approach to investigative interviewing may provide a potentially effective alternative to the classic American interrogation. As a matter of policy, we suggest that the videotaping of entire interrogations from a balanced camera perspective is necessary to improve the fact finding accuracy of judges and juries who must evaluate confession evidence in court.

Sometimes the terms ‘interviewing’ and ‘interrogation’ are recklessly tossed about as if synonymous and interchangeable. Yet at other times the terms are carefully chosen by courtroom advocates sparring in a semantic battle for the hearts and minds of judges and juries. In this battle, state prosecutors choose the word ‘interview’ (suggesting a dialog, meeting, or discussion), whereas defense lawyers use the word ‘interrogation’ (connoting a more one-sided examination, or grilling) to describe prior transactions between the police and defendant. The pragmatic implication is clear: interviews produce statements that are voluntary; interrogations reek of possible coercion.

From an historical perspective, it is useful to note that up through the 1930s, in the US, police routinely employed physically aversive ‘third degree’ methods of interrogation to extract confessions from crime suspects. As a result of various US Supreme Court rulings and reforms, these methods were replaced by a more psychologically oriented approach that rests on a combination of behavioural

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lie-detection methods used to separate truth tellers and liars (an interview) and social influence techniques designed to elicit confessions from the latter (an interrogation). This psychological approach is presented in various interrogation training manuals, the most notable being *Criminal interrogation and confessions*, first written by Inbau and Reid (1962) and currently in its fourth edition (Inbau, Reid, Buckley, & Jayne, 2001). Named after John E. Reid, who developed this approach with Fred Inbau, this manual teaches the so-called Reid technique (for a review of American interrogation practices past and present, see Leo, 2008).

In contrast, interrogation practices in England are less confrontational and more transparent (Williamson, 2006). Prior to 1992, investigators in Britain received no formal training and the chief purpose of questioning suspects was to obtain confessions. Following a number of high profile false confession cases comprehensively reviewed by Gudjonsson (2003), a new approach was developed through a collaboration of police officers, psychologists and lawyers (the mnemonic PEACE was used to describe the five distinct parts of the new interview approach: 'Preparation and Planning,' 'Engage and Explain,' 'Account,' 'Closure,' and 'Evaluate'). Recent analyses of police-suspect interviews in England have confirmed that the highly confrontation-based tactics of the Reid technique are in fact seldom used, replaced instead by a wholly different, more inquisitorial, approach (Soukara, Bull, Vrij, Turner, & Cherryman, 2009; Bull & Soukara, 2009). Consistent with the purposes and methods used within this approach, British investigators typically refer to the process as an investigative interview, not an interrogation. The benefits of this alternative will be described later.

The pre-interrogation interview

In the Reid technique, police are trained to question suspects in a two-staged process that begins with a non-confrontational interview that possibly transitions into an interrogation. The purpose of the interview is to provide a means by which investigators can determine if suspects are lying or telling the truth. In *Criminal interrogation and confessions*, police are advised in the use of the behavioural analysis interview (BAI), a process by which they ask certain non-accusatory questions and then observe the suspect for verbal and non-verbal behavioural symptoms of deception. According to Inbau *et al.* (2001), investigators who are trained in the BAI can achieve extraordinarily high accuracy rates at making deception judgments that can be used to distinguish between perpetrators and innocent suspects (see Horvath, Jayne, & Buckley, 1994).

Research on the science of human lie detection, reviewed by Porter and ten Brinke, in this issue, casts serious doubt on the claims made concerning the efficacy of this approach. Consistently, empirical research has shown that many of the behavioural cues that police are trained to use – such as gaze aversion, rigid posture, and fidgeting – are not diagnostic of truth and deception; that laypeople on average are only 54% accurate; that training produces only marginal improvement; and that police investigators, like judges, psychiatrists, customs inspectors, and other professionals who make these judgments for a living, perform only slightly better, if at all (see Bond & DePaulo, 2006; Vrij, 2008). Part of the problem is that people over rely on behavioural stress cues that do not reliably differentiate between truth and deception (Akehurst, Kohnken, Vrij, & Bull, 1996; DePaulo, Lindsey, Malone, Muhlenbruck, Charlton, & Cooper, 2003; Stromwall & Granhag, 2003; Vrij, Akehurst, & Knight, 2006). Yet when asked to assess their own abilities, police estimate that they are 77% accurate at distinguishing between truths and lies (Kassin *et al.*, 2007).

In studies specifically designed to test the Reid technique, the results are no more encouraging. Vrij, Mann, and Fisher (2006) had some participants but not others commit a mock crime they were motivated to deny. All participants were then interviewed using the 'behaviour provoking questions' provided by the BAI protocol. The results showed that responses to these questions (e.g. 'What do you think should happen to the person who did this?') did not significantly distinguish the liars and truth tellers in the predicted manner (e.g. the liars were not more anxious or less helpful). There is also no evidence for the diagnostic value of the 'behavioural symptoms' that investigators are trained to observe in suspects. For example, Kassin and Fong (1999) randomly trained some college students but not others in the use of behavioural cues cited by the aforementioned Reid technique. All students then watched videotaped interviews of mock suspects, some of whom committed one of four mock crimes; others of whom did not. Upon questioning, all suspects denied their involvement. As in the typical non-forensic laboratory experiment, observers were generally unable to differentiate between the two groups of suspects. Moreover, those who underwent training were significantly less accurate, more confident, and more biased toward seeing deception. Using these same taped interviews, Meissner and Kassin (2002) tested experienced samples of police investigators and found that they too exhibited this triad of tendencies. Other research as well has shown that law enforcement training tends to focus investigators more on cues of deception than truthfulness - which exacerbates the bias toward seeing deception with high levels of confidence (Masip, Alonso, Garrido, & Herrero, in press).

The processes of interrogation

For suspects who fail to survive the pre-interrogation interview because they are judged deceptive, the questioning transitions into a highly confrontational interrogation characterized by the use of persuasive social influence tactics. The transition is not a subtle one. Whereas the goal of a pre-interrogation interview is one of assessment, the single-minded objective of interrogation is to obtain a confession (for a recent review on the psychology of confessions, see Kassin, 2008).

Before we describe this multistep process of influence, we think it is important to note a significant implication of the two-step approach: That interrogation is by definition a guilt-presumptive process, a theory-driven social interaction led by an authority figure who already believes that he or she is interrogating the perpetrator and for whom a just outcome is measured by confession. In the case of innocent suspects, one would hope that investigators would periodically re-evaluate their beliefs. Over the years, however, a good deal of research has shown that once people form an impression, they unwittingly seek, interpret, and create behavioural data that verify it. This last phenomenon - often referred to as the behavioural confirmation bias - has been observed not only in the laboratory but in classrooms, the military, the workplace, and other settings (McNatt, 2000; Nickerson, 1998).

In an experiment of relevance to interrogation, Kassin, Goldstein, and Savitsky (2003) assessed whether interrogators' expectations shape their own conduct, their suspects, and ultimately the judgments made by neutral observers. In the first phase of their study, participant suspects committed a mock theft or engaged in a related but innocent act, after which they were interviewed via headphones from a remote location. Other participants, in the role of investigators, were led to believe that their suspect was probably guilty or innocent. In a second phase, condition-blind observers

listened to the taped interviews and rated their impressions of both sets of participants. Results showed that investigators who were led to expect guilt rather than innocence asked more guilt-presumptive questions, used more techniques, exerted more pressure to get a confession, and made innocent suspects sound more anxious, more defensive, and somewhat more likely to have committed the crime (also see Hill, Memon, & McGeorge, 2008). In short, innocent suspects may hope that their innocence will become self-evident during questioning, but the guilt-presumptive nature of interrogation and the behavioural and cognitive confirmation biases that follow become serious impediments.

As a consequence of adopting a two-step approach, investigators commence the process of interrogation with one goal in mind: 'To persuade a suspect to tell the truth' (Inbau *et al.*, 2001, p. 211). Ostensibly, the rights to silence and to counsel should protect suspects from unusually harsh interrogations, but research shows that this is not the case. In *Miranda v. Arizona* (1966), the US Supreme Court required police to inform suspects of their constitutional rights to remain silent and receive legal counsel should they wish it. Only after a suspect knowingly and voluntarily waives these rights are police permitted by law to commence interrogation. However, this safeguard is more illusory than real in its effects. Naturalistic observations and police self-report estimates have suggested that approximately 80% of people waive their *Miranda* rights (Leo, 1996b; Kassin *et al.*, 2007). A similarly high waiver rate has been observed in Great Britain as well (Baldwin, 1993; Moston, Stephenson, & Williamson, 1993; Softley, 1980).

For suspects who have waived their rights, the process of interrogation is often highly scripted by training. There are different models of interrogating suspects to elicit confessions – and a number of specific tactics are employed. The Reid Technique is the most influential approach in North America and is used in other parts of the world as well. Comprised of nine steps, this approach is explicitly designed to induce admissions of guilt by increasing the anxiety associated with denial while minimizing the anxiety associated with confession (for a description and advocacy of this approach to interrogation, see Buckley, 2006; for a social psychological analysis, see Davis & O'Donahue, 2003; for a critique, see Kassin, 2006).¹

To set up the interrogation process, interrogators are advised to isolate the suspect in a small, bare, preferably soundproofed room. At that point, the interrogator confronts the suspect with a strong assertion of guilt, often accompanied by the presentation of incriminating evidence, real, or contrived (Step 1). After pausing briefly to evaluate the suspect's reaction and urge him or her to tell the truth, the interrogator begins to develop 'themes' that minimize the seriousness of the offense and offer moral justification – for example, by blaming the victim or other circumstances (Step 2). The interrogator is then instructed to interrupt all denial efforts should the suspect continue to maintain his or her innocence (Step 3) and to overcome the suspect's moral, factual, and emotional objections as to why he or she could not or would not have committed the crime (Step 4). For the suspect who responds to the pressure by passive withdrawal, the interrogator must recapture that suspect's attention (Step 5), show sympathy and understanding to get the suspect to cooperate (Step 6), and revisit the themes developed earlier by presenting an 'alternative question' which presents two guilty interpretations of the crime in which one is more acceptable than the other (Step 7).

¹ The second and third authors have attended the Reid training seminar the accompanying materials of which largely correspond to the manual published by Inbau *et al.* (2001).

If the suspect accepts the lesser alternative, constituting a preliminary admission of guilt, the interrogator seeks a fuller narrative admission complete with details about the crime (Step 8) and then converts that narrative into a full written confession detailing what, how, and why, that will prove credible in court (Step 9). That these techniques are routinely used has been documented in naturalistic observation studies (Leo, 1996a; Feld, 2006) and in the self reports of North American police investigators (Kassin *et al.*, 2007; Meyer & Reppucci, 2007).

The problem of false confessions

In part, the process of interrogation is successful to the extent that it provides police with a lawful means of convincing perpetrators to confess their crimes. With some unknown degree of regularity, however, innocent suspects are also sometimes induced to confess to crimes they did not commit. Within the recent and growing population of post-conviction DNA exonerations reported by the Innocence Project, in the United States, false confessions were a contributing factor in more than 20% of these cases (<http://www.innocenceproject.org/>). As this sample does not include false confessions that were rejected by police or prosecutors, those for which DNA was not available, and those to lesser crimes that elicit less post-conviction scrutiny, it is clear that these instances represents the tip of an iceberg (Drizin & Leo, 2004; Gross, Jacoby, Matheson, Montgomery, & Patel, 2005).

Less direct sources reinforce these data. In self-report studies conducted in Iceland 12% of prisoners, 3–4% of college students, and 1–2% of older university students have said that they have confessed to a crime they did not commit (for a review, see Gudjonsson, 2003). In a recent survey of thousands of juveniles across seven European countries, 11.5% reported having been interrogated by police. Within this group, 14% reported having given a false confession (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, in press). In North America, 631 police investigators recently surveyed estimated that, on average, 4.78% of innocent people confess during interrogation (Kassin *et al.*, 2007).

Individual differences in suspect vulnerabilities

Based on actual cases as well as psychological research on false confessions, it is clear that some suspects are more vulnerable to manipulation than others. Focusing on personality traits, Gudjonsson (2003) has found that individuals who score high on a self-report measure of compliance in social situations are especially vulnerable because of their eagerness to please others and a desire to avoid confrontation, particularly with those in authority. Individuals who score high on the Gudjonsson Suggestibility Scale (GSS) – whose memory reports can be altered by misleading questions and negative feedback (see Gudjonsson, 1984) – are also more likely to confess. As a general rule, individuals with high scores on interrogative suggestibility also tend to exhibit poor memories, high levels of anxiety, low self-esteem, and a lack of assertiveness. In a study of actual crime suspects, Gudjonsson (1991) found that ‘alleged false confessors’ (who confessed to police but later retracted the statements) obtained higher GSS scores than the general population, whereas ‘resistors’ (who maintained their innocence throughout interrogation) obtained lower scores.

Gudjonsson (2003) has also described a number of false-confession cases involving people with diagnosed psychological disorders, common symptoms of which include

distorted perceptions and memories, a breakdown in reality monitoring, impaired judgment, anxiety, mood disturbance, and lack of self-control. Individually or in combination, these symptoms may lead people to offer misleading information, including false confessions, to police under the pressure of an interrogation. In a recent self-report study, Redlich (2007) thus found that offenders with mental illness self-reported a 22% lifetime false confession rate, which is significantly higher than the rate found in prison samples of inmates who were not diagnosed with mental illness (Sigurdsson & Gudjonsson, 1996).

As suggested by the disproportionate number of juveniles appearing in the population of false confessors, youth is a particularly significant risk factor in the interrogation room (Drizin & Leo, 2004). This finding makes sense. Based on their review of developmental research, Owen-Kostelnik, Reppucci, and Meyer (2006) concluded that adolescents are not only more compliant and suggestible than adults but that their decision-making is characterized by an 'immaturity of judgment' that leads them to be impulsive, focused on the present, and diminished in their capacity to perceive risk. To the innocent adolescent not fully focused on long-term consequences, confession may serve as an expedient means of escape from a stressful situation. This hypothesis is amply confirmed across a range of research methodologies - including laboratory experiments in which innocent participants are induced to confess (Redlich & Goodman, 2003), role playing studies in which participants are asked to make hypothetical decisions (Grisso *et al.*, 2003), and surveys in which participants self report on whether they had ever falsely confessed to police (Gudjonsson *et al.*, in press; Viljoen, Klaver, & Roesch, 2005).

People who are intellectually impaired, as measured by conventional IQ tests, are also overrepresented within the population of false confessors (Drizin & Leo, 2004). This result is also not surprising. People who are mentally retarded also exhibit an acquiescence response bias that leads them to say 'yes' to a whole range of questions - even when an affirmative response is incorrect and absurd (Finlay & Lyons, 2002). They also tend to be highly suggestible, as measured by the degree to which they are influenced by leading and misleading questions on the GSS (Everington & Fulero, 1999; Gudjonsson & Clare, 1995).

Interrogation tactics that put innocent suspects at risk

When used in the extreme, certain interrogation tactics can cause even ordinary innocent adults to confess. One such factor concerns the length of time that a suspect is held incommunicado. Research conducted in the USA and Great Britain has shown that most interrogations are brief, with a vast majority lasting from 30 min up to 2 h (Baldwin, 1993; Irving, 1980; Kassin *et al.*, 2007; Leo, 1996a; Wald, Ayres, Hess, Schantz, & Whitebread, 1967). Yet interrogation times in cases involving proven false confessions exceed these time frames. In a study of 125 false confessions, Drizin and Leo (2004) found that 34% lasted 6-12 h, that 39% lasted 12-24 h, and that the mean was 16.3 h. That lengthy interrogations (which indicate dogged persistence in the face of denial) are associated with false confessions is not surprising.

The human needs for belonging, affiliation, and social support are a fundamental human motive (Baumeister & Leary, 1996). Especially, under stress, people seek desperately to affiliate with others for the psychological, physiological, and health benefits that social support provides (Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Prolonged isolation thus constitutes a form of deprivation that can exacerbate a suspect's

distress and heighten need to extricate himself or herself from the situation. Importantly, sleep deprivation is also a source of concern. Research shows that sleep deprivation can increase susceptibility to influence and impair decision-making abilities in complex tasks (Harrison & Horne, 2000). The range of effects is varied, with studies showing that sleep deprivation impairs the ability to sustain attention (Heuer, Kohlisch, & Klein, 2005), flexibility on thinking (Harrison & Horne, 1999), and suggestibility in response to leading questions (Blagrove, 1996). Pilcher and Huffcut (1996) thus concluded that 'Overall, sleep deprivation strongly impairs human functioning'.

A second problematic tactic concerns the presentation of false evidence. In the USA, police are permitted to bolster their accusations by telling suspects that there is incontrovertible evidence of their guilt (e.g. a hair sample, eyewitness identification, or failed lie-detector test) even if no such evidence exists. It is clear that such trickery can induce innocent people to confess. Over the years, basic psychology research has shown that misinformation, as presented through confederates, witnesses, counterfeit test results, bogus norms, or false physiological feedback, can substantially alter people's visual perceptions, beliefs, memories for experienced and observed events, and behaviours.

With regard to confession, this hypothesis was tested and confirmed in numerous laboratory experiments. In one study, Kassin and Kiechel (1996) accused college students typing on a keyboard of causing the computer to crash by pressing a key they were instructed to avoid. Despite their innocence and initial denials, subjects were asked to sign a confession. In some sessions but not others, a confederate said she witnessed the subject hit the forbidden key. This false evidence nearly doubled the number of students who signed a written confession, from 48 to 94%, many of whom internalized the belief in their own culpability. Other studies have replicated this effect using the computer crash paradigm (e.g. Horselenberg, Merckelbach, & Josephs, 2003; Klaver, Lee, & Rose, 2008; Redlich & Goodman, 2003; Swanner, Beike, & Cole, 2009) and other paradigms as well (e.g. Horselenberg *et al.*, 2006; Nash & Wade, 2009).

A third potentially problematic tactic is minimization, the process by which interrogators seek to minimize the crime by developing themes that offer moral justification. At this phase, interrogators may suggest to the suspect that his or her actions were spontaneous, accidental, provoked, peer-pressured, or otherwise justifiable. Past research has shown that minimization remarks lead observers to infer that leniency will follow from confession, even without an explicit promise (Kassin & McNall, 1991). To further assess the behavioural effects of this tactic, Russano, Meissner, Narchet, and Kassin (2005) paired subjects with a confederate for a problem solving study and instructed them to work alone on some trials and jointly on others. In a guilty condition, the confederate sought help on an individual problem, inducing the subject to violate this prohibition; in the innocent condition, the confederate did not make this request. The experimenter then 'discovered' a similarity in solutions, separated the subject and confederate, accused the subject of cheating, and sought a signed confession. Compared to the no-tactics condition, minimization was as effective as an explicit offer of leniency at increasing not only true confessions from the guilty but false confessions from the innocent.

Toward building a better mousetrap

In order to create and systematically assess methods of interrogation that produce diagnostic outcomes - inducing perpetrators but not innocents to incriminate

themselves – researchers must bring the phenomenon for testing into the laboratory (for a discussion of using laboratory paradigms for research on suspect interrogations, see Meissner, Russano, & Narchet, 2009).

The Kassin and Kiechel (1996) computer crash paradigm described earlier was the first used to systematically – and ethically – examine factors that elicit false confessions. In this situation, subjects were brought into the laboratory and paired with a confederate to participate in a reaction time study. All subjects were warned to avoid hitting a specific key because pressing it will crash the computer. The computer then crashed and the subject was blamed. In this first iteration of the study, the researchers manipulated both the subject's vulnerability to manipulation and the use of the false evidence ploy. Both factors significantly increased the confession rate. This paradigm provided the first empirical evidence of the potential danger of presenting false evidence to innocent suspects. It has since been extended to investigations of the vulnerability of youth (Candel, Merckelbach, Loyen, & Reyskens, 2005; Redlich & Goodman, 2003), dispositional risk factors (Forrest, Wadkins, & Larson, 2006; Horselenberg *et al.*, 2003), the plausibility of the false evidence (Horselenberg *et al.*, 2006), the 'secondary confessions' reported by informants (Swanner *et al.*, 2009), and the use of bluffing, a related tactic (Torkildson & Kassin, 2008). In all these studies, researchers were able to assess the magnitude of the risk innocent subjects.

While the computer crash experiments have proven useful and have produced results that are both lawful and replicable, they are limited in important ways. First, all subjects are factually innocent of having hit the forbidden key, so it is not possible to elicit true confessions and, hence, to assess the diagnosticity of interrogation outcomes by comparing true and false confession rates. Second, for ethical reasons, the 'crime' for which subjects in this paradigm are accused is an unintended 'accident' and it thereby lacks the element of volition that typically defines criminal acts in the real world.

To address these limitations, Russano *et al.* (2005) developed a 'cheating paradigm' designed to elicit intentional behaviours and manipulated guilt and innocence, thereby allowing for the assessment of both true and false confessions. In this situation, subjects were paired with a confederate for a problem-solving study in which they were instructed to work alone on some problems and jointly on the others. In the guilty condition, the confederate asked the subject for help on an individual problem, inducing a prosocial act that violated the experimental rule. In the innocent condition, no such request was made. Afterwards, all subjects were accused of cheating and asked to sign a confession. Substantively, the researchers varied the minimization tactic used to elicit confessions and found that minimizing remarks, like an explicit promise of leniency, increased not only the rate of true confessions but of false confession as well, ultimately decreasing the diagnosticity of outcomes.

Using the laboratory as a testing ground, two substantive approaches can be taken to build a model of interrogation that produces more diagnostic outcomes (i.e. stable or increased confession rates among perpetrators; decreased confession rates among innocents). One is to reconceptualize the social influence process of interrogation by making it less 'confrontational' and more 'investigative.' As noted earlier, the British took this step several years ago when the Police and Criminal Evidence (PACE) Act of 1984 sought to reduce the use of psychologically manipulative tactics. As an empirical matter, it appears that this policy was successfully implemented. In a post-PACE naturalistic observational study, Irving and McKenzie (1989) found that the use of psychologically manipulative tactics had significantly declined – without a significant drop in the

frequency of confessions. In 1993, the Royal Commission on Criminal Justice further reformed the practice of interrogation by proposing the PEACE model, the broader purpose of which is fact-finding, not just confession (as noted earlier, the mnemonic PEACE describes the five distinct parts of this approach: 'preparation and planning,' 'engage and explain,' 'account,' 'closure,' and 'evaluate'). In this model, interviewers are encouraged to be fair and open minded and to pursue reliable, true, and accurate information. Observational research has suggested that such investigative interviews enable police to inculcate offenders by obtaining useful information from them (see Williamson, 2006). Moreover, laboratory experiments have shown that a challenging investigative interview can also lead suspects to produce more verbal (Vrij, Mann, Kristen, & Fisher, 2007) and non-verbal (Vrij, 2006) cues to deception. This approach continues to be used and has been adopted throughout New Zealand and Norway.

Recently, Bull and Soukara (2009) have reported on four studies supportive of this new model. In the first study, police investigators were surveyed with regard to their opinions of this approach. Most agreed that special training was necessary and that planning and preparation for the interview (the 'P' in PEACE) was the most important component. In sharp contrast to the approach taken by Reid-trained investigators the vast majority stated that it is important not to presume a suspect's guilt prior to interrogation and that obtaining a confession is not the most important goal. The remaining studies were based on observations of audiotaped interviews (note that within the British approach, there is no sharp distinction to be drawn between interviewing and interrogation). In these studies, Bull and Soukara (2009) had raters systematically code a large number of taped police interviews in England and Wales and found that the tactics used do in fact conform to the non-coercive PEACE model. The investigators frequently asked open-ended, leading, and repetitive questions; disclosed evidence to suspects; and challenged suspects' accounts, often by pointing out contradictions and inconsistencies. Yet they never resorted to threats, promises, and intimidation, or the kinds of maximization and minimization tactics through which threats and promises are often implied. Importantly, these taped sessions also revealed that admissions and confessions were drawn from a number of suspects who initially had denied involvement, thus suggesting the efficacy of the approaches taken.

Observations of PEACE interviews are encouraging, but one could argue that other differences between Great Britain and the USA preclude the suggestion that a similar reform of confrontational practices in the USA will have the same effects. Indeed, while naturalistic observational data are suggestive, they cannot be used to assess the diagnosticity of various approaches to interrogation or the impact of specific tactics. For this purpose, laboratory experimentation is needed. In one series of studies, for example, focused on deception detection, interviewers more effectively exposed mock criminals who were deceptive versus truthful by strategically withholding incriminating evidence rather than immediately confronting the suspects with that evidence, as in the Reid technique (Hartwig, Granhag, Strömwall, & Kronkvist, 2006; Hartwig, Granhag, Strömwall, & Vrij, 2005). Focusing on the elicitation of confessions, Rigoni and Meissner (2008) also used the cheating paradigm described earlier. They independently varied and compared the confrontational and investigative interviewing approaches to interrogation and found that the latter produced more diagnostic outcomes - lowering the rate of false confessions (from 40 to 17%) without producing a corresponding decrease in the rate of true confessions (which actually increased from 67 to 77%). Although more systematic research is needed, this promising result, coupled with Bull and Soukara's (2009) observational studies, indicates that the British-based investigative

interviewing approach offers a potentially effective wholesale alternative to the classic American interrogation.

Other laboratory experiments have examined specific tactics used within a confrontation-based framework for interrogation. Based on converging evidence from actual false confession cases, basic principles of psychology, and forensic research, the existing literature suggests that certain interrogation practices may pose a risk to the innocent, even those who are not characteristically vulnerable to manipulation. The false evidence ploy described earlier – by which police lie about fingerprints, DNA samples, polygraph results, and eyewitness identifications – is a case in point. Beginning with Kassin and Kiechel's (1996) original computer crash study, numerous follow-up experiments have shown that lies about evidence can lead innocent people to feel trapped, sometimes get confused, and confess. Taking a different approach, Nash and Wade (2009) used digital editing software to fabricate video evidence of participants in a computerized gambling experiment 'stealing' money from the 'bank' during a losing round. Presented with this false evidence, every single subject confessed – and most internalized the belief in their own guilt.

Recent theorizing on how the phenomenology of innocence can put innocent people at risk Kassin (2005) has provocative implications for police interrogations – causal implications that can only be tested in the laboratory. Consider the following example. As an apparently benign alternative to the false evidence ploy, many interrogators will bluff about having evidence to be processed without falsely asserting that this evidence implicates the suspect (e.g. that biological evidence was sent to a laboratory for testing). In principle, this bluff should threaten perpetrators with certain detection, pressuring them to confess, without similarly affecting innocents who have nothing to fear from the forthcoming results. But does this tactic pose a risk to the innocent? Using the computer crash paradigm, Torkildson and Kassin (2008) falsely accused subjects of hitting a forbidden key, causing the computer to crash. Replicating past results, the presentation of a false but incriminating eyewitness account significantly increased the confession rate, from 27 to 79%. However, in a bluff condition in which subjects were told merely that the keystrokes were recorded but could not be accessed until the technician returned the following day, the false confession rate also significantly increased – to 87%. As subjects explained afterward, and consistent with anecdotal reports, it was clear that to the innocent person the 'threat' of proof implied by the bluff offered a promise of future exoneration that paradoxically made it easier to confess. This result was then replicated within the cheating paradigm, where bluffing significantly increased the risk of false confessions relative to a no-bluff control group and reduced diagnosticity (Perillo & Kassin, 2009).

What next? On the need to record suspect interrogations

Thus far, we have focused on possible ways to reduce false confessions and increase the diagnostic value of classic police interrogations – both by dialing down the use of extreme forms of confrontation and trickery (e.g. the presentation of false evidence, the use minimization themes) and by encouraging the use of investigative interviewing practices (e.g. the presumption of innocence; use of open-ended, leading, and repetitive questions), as derived from the British PEACE model. Human beings are imperfect, however, so regardless of what methods are used in the questioning of suspects, police will sometimes target innocent people for interrogation; innocent people will

sometimes confess to crimes they did not commit; and prosecutors will sometimes try innocent people on the basis of their false confessions.

For these reasons, a safety net is needed. One could argue that the risk of false confessions can be tolerated to the extent that those taken are detected and corrected in court, by judges and juries. Unfortunately, research on the impact of confessions on fact finders is not encouraging. Research shows that people cannot readily distinguish between videotaped true and false confessions (Kassin, Meissner, & Norwick, 2005). Moreover, mock jury studies have shown that confessions have more impact than other potent forms of evidence (Kassin & Neumann, 1997) and that people do not fully discount confessions—even when they appear to have been coerced (Kassin & Wrightsman, 1980; Kassin & Sukel, 1997), even when they were reported second-hand by an informant who was self-motivated to lie (Neuschatz, Lawson, Swanner, Meissner, & Neuschatz, 2008), even when the confessor in question was said to have suffered from an anxiety disorder or acute stress (Henkel, 2008), and even when the confessor was a minor (Redlich, Ghatti, & Quas, 2008).

Part of the problem in the USA is that many judges and juries are presented with only the suspect's final narrative confession – in writing or on tape – without the preceding interrogation in which it was induced. Recording requirements now exist in roughly a dozen states and are in practice in many individual jurisdictions, but this practice is still an exception to the rule (see The Justice Project, 2007). To further complicate matters, false confessions are persuasive and difficult to discount for a number of rational reasons. Whether true or false, for example, most narrative confessions contain not only admissions of guilt but substantive details about the crime, the scene, and the victim. Reviewing the statements provided by thirty-three confessors in the USA who were ultimately exonerated, Garrett (2008) found that all but one contained specific, accurate, allegedly 'non-public' details about the crimes at issue, details that detectives said 'only the perpetrator could have known' (pp. 12–16, 25).

The presence of vivid details is not the only reason that false confessions are so often credible. Based on a content analysis of 20 known false confessions, Appleby, Hasel, Shlosberg, and Kassin (2009) found that most of the statements contained a full narrative description of what and how, complete with vivid details pertaining to the crime, the scene, and the victim. All twenty confessions referenced the victim's appearance and behaviour, the time of day, the location, and various visual and auditory details. Eighty-five per cent of false confessors 'reflected' on their own thoughts and feelings, 80% provided a motive statement to explain why they committed the crime, 65% sought to minimize or excuse their involvement, 40% expressed remorse, and 25% outright apologized. Importantly, half of all innocent confessors made it a point to assert that their statement was voluntary. Taken together, these findings are important because the more elaborate a confession is, the more credible it is and the greater its potential for impact is on the jury (Appleby & Kassin, 2009).

Based on the extensive research showing that people cannot discriminate between truth and deception on the basis of behavioural cues and the complicating fact that police-induced confessions are scripted and rehearsed through a process of interrogation, it is clear that judges and juries are ill-equipped to evaluate the voluntariness and veracity of suspects' confessions and denials. Yet there is reason to believe that these fact finders would become more accurate in their judgments if they could observe not only the final statement on videotape but the situation that evoked it. In a mock jury study, Kassin, Leo, Crocker, and Holland (2003) exposed participants to videotapes of the confessions of five actual crime suspects who were later proved guilty

or innocent. Half of the jurors viewed only the final confession; the other half also viewed an edited version of the preceding interrogation. There were two important findings. First, jurors who saw the full interrogation were generally more likely to perceive the resulting confession as having been pressured by police. Second, however, while jurors who saw the full interrogation were less likely to convict two of three innocent confessors, they were not less likely to convict the two guilty confessors.

As the practice of videotaping entire interrogations becomes more common in the USA, which may well increase the fact finding accuracy of judges and juries by providing a full and accurate record of the transaction, researchers have also sought to examine how these tapes depict the transaction between police investigators and suspects. In particular, researchers have examined the effects of camera angles. In a series of studies initiated by Lassiter and Irvine (1986), subjects have been shown mock interrogations from three different camera angles so that the suspect only, the investigator only, or both were salient. Consistently, observers who are visually focused on the suspect judge the situation as less coercive than those focused on the investigator or on both parties (Lassiter, Slaw, Briggs, & Scanlan 1992).

Additional studies have confirmed that people are more attuned to the situational factors that prompt confessions whenever the interrogator is on camera than when the focus is solely on the suspect (Lassiter & Geers, 2004; Lassiter, Geers, Munhall, Handley, & Beers, 2001). In these more balanced circumstances, juries make more informed attributions of voluntariness and guilt when they see not only the final confession but also the conditions under which it was elicited (Lassiter, Geers, Handley, Weiland, & Munhall, 2002). These effects do not afflict only lay jurors. In a recent study, trial judges were similarly influenced by this simple variation in camera perspective (Lassiter, Diamond, Schmidt, & Elek, 2007). Hence, in order to provide innocent suspects with an effective safety net when the questioning is videotaped, it is necessary to ensure that fact finders see these sessions in a full, accurate, and balanced manner.

Representing the tip of the iceberg in wrongful convictions, DNA exoneration cases reveal that police too often question and obtain false confessions from innocent suspects. Over the years, psychology research has identified some of the problems inherent in the processes of interviewing and interrogation with an eye towards possible solutions. As illustrated by recent experiments, we believe that laboratory paradigms can and should be used to help build more diagnostic models of interviewing and interrogation. We also believe that the PEACE approach to investigative interviewing offers a potentially effective alternative to the classic, confrontational style of interrogation - which itself needs to be reformed. As a matter of policy, it is also clear that the videotaping of full interviews and interrogations from a balanced camera perspective will improve the fact finding accuracy of judges, juries, and others who evaluate confessions. Taken together, we have reason to believe that many false confessions can be prevented, or at least better identified, thereby reducing the future incidence of wrongful convictions.

References

- Akehurst, L., Kohnken, G., Vrij, A., & Bull, R. (1996). Lay persons' and police officers' beliefs regarding deceptive behavior. *Applied Cognitive Psychology, 10*, 461-471.
- Appleby, S. C., Hasel, L. E., Shlosberg, A., & Kassin, S. M. (2009). *False confessions: A Content Analysis*. Paper presented at the Meeting of the American Psychology-Law Society, San Antonio, TX.

- Appleby, S. C., & Kassin, S. M. (2009). *Confession effects on juries: Simple admissions, narratives, and conviction*. Paper presented at the Meeting of the American Psychology and Law Society, San Antonio, TX.
- Baldwin, J. (1993). Police interviewing techniques: Establishing truth or proof? *The British Journal of Criminology*, *33*, 325-352.
- Baumeister, R. F., & Leary, M. R. (1996). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497-529.
- Blagrove, M. (1996). Effects of length of sleep deprivation on interrogative suggestibility. *Journal of Experimental Psychology: Applied*, *2*, 48-59.
- Bond, C. F., & DePaulo, B. M. (2006). Accuracy of deception judgments. *Personality & Social Psychology Review*, *10*, 214-234.
- Buckley, J. (2006). The Reid technique of interviewing and interrogation. In T. Williamson (Ed.), *Investigative interviewing: Rights, research, regulation* (pp. 190-206). Devon: Willan Publishing.
- Bull, R., & Soukara, S. (2009). A set of studies of what really happens in police interviews with suspects. In G. D. Lassiter & C. A. Meissner (Eds.), *Interrogations and confessions: Research, practice, and policy*. Washington, DC: American Psychological Association.
- Candel, I., Merckelbach, H., Luyen, S., & Reyskens, H. (2005). 'I hit the Shift-key and the computer crashed': Children and false admissions. *Personality and Individual Differences*, *38*, 1381-1387.
- Davis, D., & O'Donahue, W. (2003). The road to perdition: Extreme influence tactics in the interrogation room. In W. O'Donahue (Ed.), *Handbook of forensic psychology* (pp. 897-996). San Diego, CA: Academic Press.
- DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, *129*, 74-112.
- Drizin, S. A., & Leo, R. A. (2004). The problem of false confessions in the post-DNA world. *North Carolina Law Review*, *82*, 891-1007.
- Everington, C., & Fulero, S. (1999). Competence to confess: Measuring understanding and suggestibility of defendants with mental retardation. *Mental Retardation*, *37*, 212-220.
- Feld, B. (2006). Police interrogations of juveniles: An empirical study of policy and practice. *Journal of Criminal Law and Criminology*, *97*, 219-316.
- Finlay, W., & Lyons, E. (2002). Acquiescence in interviews with people who have mental retardation. *Mental Retardation*, *40*, 14-29.
- Forrest, K. D., Wadkins, T. A., & Larson, B. A. (2006). Suspect personality, police interrogations, and false confessions: Maybe it is not just the situation. *Personality and Individual Differences*, *40*, 621-628.
- Garrett, B. L. (2008). *The substance of false confessions*. Forthcoming article, available at SSRN http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1280254
- Grisso, T., Steinberg, L., Woolard, J., Cauffman, E., Scott, E., Graham, S., et al. (2003). Juveniles' competence to stand trial: A comparison of adolescents' and adults' capacities as trial defendants. *Law and Human Behavior*, *27*, 333-363.
- Gross, S. R., Jacoby, K., Matheson, D. J., Montgomery, N., & Patel, S. (2005). Exonerations in the United States 1989 through 2003. *Journal of Criminal Law & Criminology*, *95*, 523-553.
- Gudjonsson, G. H. (1984). A new scale of interrogative suggestibility. *Personality and Individual Differences*, *5*, 303-314.
- Gudjonsson, G. H. (1991). Suggestibility and compliance among alleged false confessors and resisters in criminal trials. *Medicine, Science, and The Law*, *31*, 147-151.
- Gudjonsson, G. H. (2003). *The psychology of interrogations and confessions: A handbook*. Chichester: Wiley.
- Gudjonsson, G. H., & Clare, I. C. H. (1995). The relationship between confabulation and intellectual ability, memory, interrogative suggestibility, and acquiescence. *Personality and Individual Differences*, *3*, 333-338.
- Gudjonsson, G. H., Sigurdsson, J. F., Asgeirsdottir, B. B., & Sigfusdottir, I. D. (in press). Interrogation and false confession among adolescents in seven European countries: What background and

- psychological variables best discriminate between false confessors and non-false confessors? *Psychology, Crime, and Law*.
- Harrison, Y., & Horne, J. A. (1999). One night of sleep loss impairs innovative thinking and flexible decision making. *Organizational Behavior and Human Decision Processes*, 78, 128-145.
- Harrison, Y., & Horne, J. A. (2000). The impact of sleep deprivation on decision making: A review. *Journal of Experimental Psychology: Applied*, 6, 236-249.
- Hartwig, M., Granhag, P. A., Strömwall, L. A., & Kronkvist, O. (2006). Strategic use of evidence during police interviews: When training to detect deception works. *Law and Human Behavior*, 30, 603-619.
- Hartwig, M., Granhag, P. A., Strömwall, L., & Vrij, A. (2005). Detecting deception via strategic closure of evidence. *Law and Human Behavior*, 29, 469-484.
- Henkel, L. A. (2008). Jurors' reactions to recanted confessions: Do the defendant's personal and dispositional characteristics play a role? *Psychology, Crime and Law*, 14, 565-578.
- Heuer, H., Kohlisch, O., & Klein, W. (2005). The effects of total sleep deprivation on the generation of random sequences of key-presses, numbers and nouns. *Quarterly Journal of Experimental Psychology A: Human Experimental Psychology*, 58, 275-307.
- Hill, C., Memon, A., & McGeorge, P. (2008). The role of confirmation bias in suspect interviews: A systematic evaluation. *Legal and Criminological Psychology*, 13, 357-371.
- Horselenberg, R., Merckelbach, H., & Josephs, S. (2003). Individual differences and false confessions: A conceptual replication of Kassin and Kiechel (1996). *Psychology, Crime and Law*, 9, 1-18.
- Horselenberg, R., Merckelbach, H., Smeets, T., Franssens, D., Ygram Peters, G.-J., & Zeles, G. (2006). False confessions in the lab: Do plausibility and consequences matter? *Psychology, Crime and Law*, 12, 61-75.
- Horvath, E., Jayne, B., & Buckley, J. (1994). Differentiation of truthful and deceptive criminal suspects in behavior analysis interviews. *Journal of Forensic Sciences*, 39, 793-807. <http://www.innocenceproject.org/>
- Inbau, F. E., & Reid, J. E. (1962). *Criminal interrogation and confessions*. Baltimore, MD: Williams & Wilkins.
- Inbau, F. E., Reid, J. E., Buckley, J. P., & Jayne, B. C. (2001). *Criminal interrogation and confessions* (4th ed.). Gaithersburg, MD: Aspen.
- Irving, B. (1980). *Police interrogation: A case study of current practice*. London: Her Majesty's Stationery Office, Royal Commission on Criminal Procedure Research Study No. 2.
- Irving, B., & McKenzie, I. K. (1989). *Police interrogation: The effect of the police and criminal evidence act*. London: Police Foundation G.B.
- Kassin, S. M. (2005). On the psychology of confessions: Does innocence put innocents at risk? *American Psychologist*, 60, 215-228.
- Kassin, S. M. (2006). A critical appraisal of modern police interrogations. In T. Williamson (Ed.), *Investigative interviewing: Rights, research, regulation* (pp.207-228). Devon: Willan Publishing.
- Kassin, S. M. (2008). The psychology of confessions. *Annual Review of Law and Social Science*, 4, 193-217.
- Kassin, S. M., & Fong, C. T. (1999). 'I'm innocent!' Effects of training on judgments of truth and deception in the interrogation room. *Law and Human Behavior*, 23, 499-516.
- 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.
- Kassin, S. M., & Kiechel, K. L. (1996). The social psychology of false confessions: Compliance, internalization, and confabulation. *Psychological Science*, 7, 125-128.
- Kassin, S. M., Leo, R. A., Crocker, C., Holland, L. (2003). *Videotaping Interrogations: Does it enhance the jury's ability to distinguish between true and false confessions?* Paper presented at the Psychology & Law International, Interdisciplinary Conference, Edinburgh, Scotland.

- Kassin, S. M., Leo, R. A., Meissner, C. A., Richman, K. D., Colwell, L. H., & Leach, A.-M. (2007). Police interviewing and interrogation: A self-report survey of police practices and beliefs. *Law and Human Behavior, 31*, 381-400.
- Kassin, S. M., & McNall, K. (1991). Police interrogations and confessions: Communicating promises and threats by pragmatic implication. *Law and Human Behavior, 15*, 233-251.
- Kassin, S. M., Meissner, C. A., & Norwick, R. J. (2005). 'I'd know a false confession if I saw one': A comparative study of college students and police investigators. *Law and Human Behavior, 29*, 211-227.
- Kassin, S. M., & Neumann, K. (1997). On the power of confession evidence: An experimental test of the 'fundamental difference' hypothesis. *Law and Human Behavior, 21*, 469-484.
- Kassin, S., & Norwick, R. (2004). Why people waive their Miranda rights: The power of innocence. *Law and Human Behavior, 28*, 211-221.
- 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.
- Kassin, S. M., & Wrightsman, L. S. (1980). Prior confessions and mock juror verdicts. *Journal of Applied Social Psychology, 10*, 133-146.
- Klaver, J. R., Lee, Z., & Rose, V. G. (2008). Effects of personality, interrogation techniques and plausibility in an experimental false confession paradigm. *Legal and Criminological Psychology, 13*, 71-88.
- Lassiter, G. D., Diamond, S. S., Schmidt, H. C., & Elek, J. K. (2007). Evaluating videotaped confessions: Expertise provides no defense against the camera-perspective effect. *Psychological Science, 18*, 224-226.
- Lassiter, G. D., & Geers, A. L. (2004). Evaluation of confession evidence: Effects of presentation forma. In G. D. Lassiter (Ed.), *Interrogations, confessions, and entrapment* (pp. 197-214). New York: Kluwer Academic.
- Lassiter, G. D., Geers, A. L., Handley, I. M., Weiland, P. E., & Munhall, P. J. (2002). Videotaped confessions and interrogations: A change in camera perspective alters verdicts in simulated trials. *Journal of Applied Psychology, 87*, 867-874.
- Lassiter, G. D., Geers, A. L., Munhall, P. J., Handley, I. M., & Beers, M. J. (2001). Videotaped confessions: Is guilt in the eye of the camera? *Advances in Experimental Social Psychology, 33*, 189-254.
- Lassiter, G. D., & Irvine, A. A. (1986). Videotaped confessions: The impact of camera point of view on judgments of coercion. *Journal of Applied Social Psychology, 16*, 268-276.
- Lassiter, G. D., Slaw, R. D., Briggs, M. A., & Scanlan, C. R. (1992). The potential for bias in videotaped confessions. *Journal of Applied Social Psychology, 22*, 1838-1851.
- Leo, R. A. (1996a). Inside the interrogation room. *The Journal of Criminal Law and Criminology, 86*, 266-303.
- Leo, R. A. (1996b). The impact of Miranda revisited. *The Journal of Criminal Law and Criminology, 86*, 621-692.
- Leo, R. A. (2008). *Police interrogation and american justice*. Cambridge, MA: Harvard University Press.
- Masip, J., Alonso, H., Garrido, E., & Herrero, C. (in press). Training to detect what? The biasing effects of veracity judgments. *Applied Cognitive Psychology*.
- McNatt, D. B. (2000). Ancient pygmalion joins contemporary management: A meta-analysis of the result. *Journal of Applied Psychology, 85*, 314-322.
- 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.
- Meissner, C. A., Russano, M. B., & Narchet, F. M. (2009). The importance of a laboratory science for improving the diagnostic value of confession evidence. In G. Lassiter & C. Meissner (Eds.), *Interrogations and confessions: Research, practice, and policy*. Washington, DC: American Psychological Association.
- Meyer, J. R., & Reppucci, N. D. (2007). Police practices and perceptions regarding juvenile interrogations and interrogative suggestibility. *Behavioral Sciences and the Law, 25*, 1-24.

- Miranda v. Arizona, 384 U.S. 336 (1966).
- Moston, S., Stephenson, G. M., & Williamson, T. M. (1993). The incidence, antecedents and consequences of the use of the right to silence during police questioning. *Criminal Behavior and Mental Health*, 3, 30-47.
- Nash, R. A., & Wade, K. A. (2009). Innocent but proven guilty: Eliciting internalized false confessions using doctored-video evidence. *Applied Cognitive Psychology*, 23, 624-637.
- 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.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2, 75-220.
- Owen-Kostelnik, J., Reppucci, N. D., & Meyer, J. D. (2006). Testimony and interrogation of minors: Assumptions about maturity and morality. *American Psychologist*, 61, 286-304.
- Perillo, J. T., & Kassin, S. M. (2009). *To bluff or not to bluff: Stay tuned*. Paper to be presented at the Meeting of the American Psychology-Law Society, San Antonio, TX.
- Pilcher, J. J., & Huffcut, A. J. (1996). Effects of sleep deprivation on performance: A meta-analysis. *Journal of Sleep Research & Sleep Medicine*, 19, 318-326.
- Redlich, A. D. (2007). Double jeopardy in the interrogation room: Young age and mental illness. *American Psychologist*, 62, 609-611.
- Redlich, A. D., Gheiti, S., & Quas, J. A. (2008). Perceptions of children during a police interview: A comparison of suspects and alleged victims. *Journal of Applied Social Psychology*, 38, 705-735.
- Redlich, A. D., & Goodman, G. S. (2003). Taking responsibility for an act not committed: Influence of age and suggestibility. *Law and Human Behavior*, 27, 141-156.
- Rigoni, M. E., & Meissner, C. A. (2008). *Is it time for a revolution in the interrogation room? Empirically validating inquisitorial methods*. Paper presented at Meeting of the American Psychology-Law Society, Jacksonville, FL.
- 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.
- Sigurdsson, J. E., & Gudjonsson, G. H. (1996). The psychological characteristics of false confessors: A study among Icelandic prison inmates and juvenile offenders. *Personality and Individual Differences*, 20, 321-329.
- Softley, P. (1980). *Police interrogation: An observational study in four police stations*. London: Her Majesty's Stationery Office, Home Office Research Study No. 61.
- Soukara, S., Bull, R., Vrij, A., Turner, M., & Cherryman, C. (2009). A study of what really happens in police interviews with suspects. *Psychology, Crime and Law*, 15, 493-506.
- Stromwall, L., & Granhag, P. (2003). How to detect deception: Arresting the beliefs of police officers, prosecutors, and judges. *Psychology, Crime, & Law*, 9, 19-36.
- Swanner, J. K., Beike, D. R., & Cole, A. T. (2009). Snitching, lies and computer crashes: An experimental investigation of secondary confessions. *Law and Human Behavior*. Advance online publication. doi: 10.1007/s10979-008-9173-5.
- The Justice Project (2007). *Electronic recording of custodial interrogations: A policy review*. Washington, DC: Author.
- Torkildson, J., & Kassin, S. M. (2008). *Inside interrogation: The outright lie, the bluff, and false confessions*. Paper presented at the Meeting of the American Psychology-Law Conference, Jacksonville, FL.
- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin*, 119, 488-531.
- Viljoen, J., Klaver, J., & Roesch, R. (2005). Legal decisions of preadolescent and adolescent defendants: Predictors of confessions, pleas, communication with attorneys, and appeals. *Law and Human Behavior*, 29, 253-278.

- Vrij, A. (2006). Challenging interviewees during interviews: The potential effects on lie detection. *Psychology, Crime, & Law*, *12*, 193-206.
- Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and opportunities*. Chichester: Wiley.
- Vrij, A., Akehurst, L., & Knight, S. (2006). Police officers', social workers', teachers' and the general public's beliefs about deception in children, adolescents and adults. *Legal and Criminological Psychology*, *11*, 297-312.
- Vrij, A., Mann, S., & Fisher, R. P. (2006). An empirical test of the behaviour analysis interview. *Law and Human Behavior*, *30*, 329-345.
- Vrij, A., Mann, S., Kristen, S., & Fisher, R. P. (2007). Cues to deception and ability to detect lies as a function of police interview styles. *Law and Human Behavior*, *31*, 499-518.
- Wald, M., Ayres, R., Hess, D. W., Schantz, M., & Whitebread, C. H. (1967). Interrogations in New Haven: The impact of Miranda. *The Yale Law Journal*, *76*, 1519-1164.
- Williamson, T. (ed.), (2006). *Investigative interviewing: Rights, research, regulation*. Devon: Willan Publishing.

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