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Understanding the Broader Implications of Strategic Evidence Disclosure in Police Interviews with Suspects

by

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Declaration

This thesis is submitted to the University of Warwick in support of my application for the degree of Doctor of Philosophy. It has been composed by myself and has not been submitted in any previous application for any degree. The work presented (including data generated and data analysis) was carried out entirely by the author.

Inclusion of Published Work

Parts of this thesis have been published by the author.

Chapter 2 includes the following publication:

> Sukumar, D., Wade, K. A, & Hodgson, J. S. (2016). Strategic disclosure of evidence: Perspectives from psychology and law. *Psychology, Public Policy, and Law*, *22*, 306–313. doi:10.1037/law0000092

Dr Kimberley Wade and Professor Jacqueline Hodgson provided feedback on drafts of the manuscript.

Chapter 4 includes the following publication:

> Sukumar, D., Hodgson, J. S., & Wade, K. A. (2016). Behind closed doors: Live observations of current police station disclosure practices and lawyer-client consultations. *Criminal Law Review*, *12*, 900–914.

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Chapter 5 includes the following publication:

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In addition, Chapter 8, "Future Research", paragraphs 5–6 appear in Sukumar, Wade, & Hodgson (2016).

Abstract

Police around the world present evidence to suspects at different points during the interview. Some psychologists suggest that police should strategically delay disclosing evidence and test the truthfulness of a suspect's account by comparing it with the evidence. Moreover, psychologists suggest interviewers who plan strategic evidence disclosure might be less guilt-presumptive about the suspect because they must consider alternative explanations of the evidence as part of their planning. In contrast, many lawyers argue that police should not strategically disclose evidence as it undermines a suspect's fair trial rights and prevents lawyers from advising suspects effectively before the interview.

To address these conflicting perspectives from the domains of psychology and law, this thesis takes an interdisciplinary approach and considers strategic evidence disclosure within the broader legal context of a suspect's custodial detention. First, a field study of police disclosure briefings with lawyers, lawyer-client consultations, and police interviews, and a survey of lawyers highlights how lawyers rely upon the police's evidence to advise suspects in custody. When police strategically disclose evidence, lawyers cannot provide informed legal advice and tend to advise suspects to not answer police questions. Second, three experiments and a mini meta-analysis show that generating alternative evidential explanations for criminal cases, as interviewers planning strategic evidence disclosure might do, has a very small effect, or plausibly no effect, on people's beliefs about the suspect's guilt. Finally, a mock crime experiment shows that, even two months after a crime, truthful suspects' accounts fit evidence that was strategically withheld more than deceptive suspects' accounts did. Independent laypeople from a follow-up experiment could distinguish between these truthful and deceptive accounts. Together, these findings suggest that strategic evidence disclosure could help deception detection even months after a crime, but it also impinges upon suspects' legal rights and is unlikely to make interviewers less guilt-presumptive.

Chapter 1:
Police Interviewing of Suspects in England and Wales

True Detective, *The Wire*, *The Night Of*—there is a long list of television shows that portray dramatically the police questioning of suspects. In these shows, the police employ interviewing tactics, to varying degrees of success, to secure critical information from the suspects. The tactics might include deceiving the suspect, making threats, or offering a deal—all highly entertaining to watch. But what is the reality of police interviewing practices? More crucially, what tactics are legal, ethical, and actually effective in eliciting information from a suspect? In this chapter, I provide an overview of the psychology-law research and legislative changes that have shaped the way the police interview suspects in England and Wales.

What is a Police Interview?

The police interview of a suspect is essentially a dynamic, social interaction (Gudjonsson & Pearse, 2011). In England and Wales, a police interview is defined legally as "the questioning of a person regarding their involvement or suspected involvement in a criminal offence or offences which, under paragraph 10.1 [also within Code C], must be carried out under caution" (Police and Criminal Evidence Act 1984, Code C, 2017, p. 36). The police interview of a suspect is considered a crucial stage in the investigative process (Schollum, 2005; Williamson, 2007). It provides the police with an opportunity to gather new information directly from the suspect, resolve any unclear issues, highlight further lines of enquiry, or build a stronger case against the suspect (Hartwig, Granhag, & Vrij, 2005; Vrij, Hope, & Fisher, 2014). Unsurprisingly, the police rely heavily on suspect interviews when gathering evidence for the prosecution (Cape, Hodgson, Prakken, & Spronken, 2007; McConville, Sanders, & Leng, 1991). Given its importance in the criminal investigation process, police-suspect interviews have inspired a large body of psychology-law research.

Research on the Police Interviewing of Suspects

Psychologists studying police-suspect interviewing are primarily concerned with one key question: What interviewing methods help the police elicit reliable information from suspects? (Kelly, Miller, Redlich, & Kleinman, 2013). In other

words, how can the police effectively encourage suspects to provide an accurate account of what happened (for guilty suspects, this might include a confession to committing the crime) and identify when suspects are providing unreliable information, such as a lie or a false confession (an innocent suspect's account of committing a crime that they did not commit, Kassin & Gudjonsson, 2004). An overarching goal of research in this field is to improve the 'diagnosticity' of police interviewing techniques—both by increasing the ratio of true confessions to false confessions and by enabling the police interviewer to discriminate between truthful and deceptive statements made by a suspect (Meissner et al., 2014). Note that criminal justice scholars studying police-interview practices hold a different perspective—they are concerned with ensuring that suspects are able to act voluntarily and are accorded their rights, which in turn should ensure that suspects can provide reliable and voluntary information to the police (e.g., Blackstock, Cape, Hodgson, Ogorodova, & Spronken, 2014). To understand which police techniques allow suspects the opportunity to provide the most reliable information and ultimately, identify the most diagnostic interviewing strategies for the police, psychology and criminal justice scholars have employed various, complementary research methodologies (Kelly, Redlich, & Miller, 2015), including laboratory and real-world experiments which simulate crimes and police interviews (e.g., Kassin, Goldstein, & Savitsky, 2003; Russano, Meissner, Narchet, & Kassin, 2005; Vrij, Mann, Jundi, Hope, & Leal, 2012), surveys of police investigators (e.g., Kassin et al., 2007), interviews with offenders (e.g., Malloy, Shulman, & Cauffman, 2013), and field observations of live or recorded police interviews (e.g. Baldwin, 1993; Leo, 1996; McConville & Hodgson, 1993; Soukara, Bull, Vrij, Turner, & Cherryman, 2009).

Such research has identified two broad approaches to police interviewing: *accusatorial* and *information-gathering* (Meissner et al., 2014). In the accusatorial style of questioning suspects, the suspect's guilt is assumed from the outset and the goal is to secure a confession. This style of questioning suspects is typified in the two-stage Reid Technique which originated in North America (Inbau, Reid, Buckley, & Jayne, 2013). Note that, in the past, some police officers in England and Wales have also resorted to using Reid style tactics while questioning suspects in more serious cases (Pearse & Gudjonsson, 1999). In the first stage of this technique, entitled the 'Behavioral Analysis Interview', the police analyse a suspect's responses

and behaviours to identify whether the suspect is deceptive and/or guilty. Research, however, has consistently shown that many of these non-verbal behavioural cues are not indicative of truth or deception (DePaulo et al., 2003; Masip, Herrero, Garrido, & Barba, 2011) and that police investigators tend to perform only slightly better than chance when distinguishing between truths and lies (Bond & DePaulo, 2006; Meissner & Kassin, 2002; Vrij, 2008). In the second stage, suspects classified as guilty are subjected to a nine-step interrogation process involving psychologically manipulative tactics aimed to overcome the suspect's denials and pressure the suspect into confessing (Inbau et al., 2013). In light of the aforementioned shortcomings in the police's deception detection abilities, it is likely that some innocent suspects are subjected to the guilt-presumptive interrogation too.

Indeed, psychologists and criminal justice scholars have widely criticized the effectiveness of the Reid Technique, and the accusatorial approach more generally, because of its high risk of false confessions (e.g. Drizin & Leo, 2004; Kassin, Drizin, et al., 2010; Meissner & Lassiter, 2010). Accusatorial methods encompass deceitful and anxiety-inducing tactics, such as minimization (offering the suspect face-saving excuses, reducing the seriousness and consequences of the offence, sympathising with the suspect), presentation of false evidence implicating the suspect in the crime, and bluffing about the existence of such false evidence (Kassin, Drizin, et al., 2010; Perillo & Kassin, 2011). Each of these tactics have been shown to elicit false confessions from innocents. For instance, in a number of creative experiments, students were accused of transgressions such as making a computer crash, cheating, or stealing money and were subsequently interviewed using different tactics (Kassin & Kiechel, 1996; Narchet, Meissner, & Russano, 2011; Nash & Wade, 2009; Perillo & Kassin, 2011; Russano et al., 2005). Minimizing the offence, presenting false evidence, or bluffing about false evidence all increased the likelihood that innocent students, who did not commit the transgression, confessed to the transgression. Under the social pressure of these tactics, innocent suspects might simply comply with the interviewer by confessing—they prioritise the short-term reward of escaping the stressful police interview over the potential long-term costs of being prosecuted (Kassin, Drizin, et al., 2010). More worryingly, given the malleable, reconstructive nature of memory, some innocent suspects might temporarily internalize the confession and come to believe they committed the crime—particularly in the face of fabricated evidence suggesting their guilt (Kassin, 1997; Nash & Wade, 2009).

Given that accusatorial tactics influence innocent suspects to make wrongful confessions, accusatorial interviewing approaches are not very diagnostic.

In contrast, information-gathering methods are truth-seeking—they aim to elicit information, rather than a confession, from the suspect (Meissner et al., 2014). This approach emphasizes building conversational rapport with the suspect, asking open-ended questions for a more detailed, complete account from the suspect, and addressing any contradictions in the suspect's account by presenting (true) evidence strategically late in the interview (Meissner et al., 2014; Swanner, Meissner, Atkinson, & Dianiska, 2016). The next chapter will explore the research evidence in favour of strategically presenting evidence to suspects. Meanwhile, empirical research has shown that the remaining strategies improve cooperation from the suspect and the level of information gained during the interview. In one study, researchers analysed recordings of real police interrogations and found that accusatorial tactics reduced suspect cooperation, whereas information-gathering tactics, such as rapport and relationship-building, fostered suspect cooperation and willingness to divulge information (Kelly, Redlich, & Miller, 2016). In an experimental study, interviewers questioned students about whether another student cheated using either an information-gathering script, which asked students for a free recall, or an accusatorial script, which maximised students' fears and manipulated their perceptions about the consequences of admitting information (Evans et al., 2013). Students questioned with an information-gathering script were more talkative and provided more critical details than students questioned with an accusatorial script. Crucially, a meta-analysis of experimental studies found that information-gathering interviews were more diagnostic, in that they had a higher ratio of true to false confessions, than accusatorial interviews (Meissner et al., 2014).

Having established that information-gathering interviews are more ethical and effective in eliciting reliable information from a suspect, researchers continue to investigate ways to improve the diagnosticity of police interviewing, particularly in the context of lie detection. In recent years, deception detection research has taken a new direction—instead of passively observing suspects for cues that they are lying, researchers began investigating how interviewers can actively elicit cues to deception from suspects, by better understanding the psychological states of truthful and deceptive suspects (Vrij & Granhag, 2012). For instance, consider the finding that lying might be more cognitively demanding than telling the truth (Vrij, Fisher,

Mann, & Leal, 2006). Building upon this, interviewers can impose greater cognitive load on suspects, for instance by asking them to tell their story in a reverse order, and benefit from deceptive suspects exhibiting more cues to deceit such as reporting fewer details in their stories (Vrij et al., 2008). Another insight into deceptive vs. truthful suspects' strategies is that deceptive suspects tend to prepare for an interview more than truthful suspects do (Hartwig, Granhag, & Strömwall, 2007). Thus, it is more diagnostic to ask suspects unanticipated questions—questions that they have not prepared answers for—such as questions about the spatial layout of a location that they allegedly visited (Vrij et al., 2009). In response to such unanticipated questions, deceptive suspects tend to be less consistent with their accomplices' responses making it apparent that they are lying. The subject of this thesis, the strategic disclosure of evidence technique, forms part of this new repertoire of deception detection techniques—but before delving into the strategic disclosure of evidence, I review the revolution of police interviewing in England and Wales.

<p align="center">**A Brief History of the Police Interview in England and Wales**</p>

The police interviewing of suspects in England and Wales has undergone dramatic changes in the past four decades. In response to false confessions extracted from youths (Fisher, 1977), the Royal Commission on Criminal Procedure (1981) was set up to research police interrogation practices and soon after in 1984, the Police and Criminal Evidence (PACE) Act was introduced (Williamson, 1993). PACE regulates a range of police procedures, including the arrest, detention, and questioning of suspects (Sanders, Young, & Burton, 2010). Amongst other things, PACE provides suspects with access to free, independent legal advice before and during police questioning and requires that all suspect interviews are audio- or video-recorded (Kassin, Drizin, et al., 2010). In this way, police interviews became more transparent and available for scrutiny. Moreover, under PACE, the police are not permitted to use oppression during interviews with suspects (Police and Criminal Evidence Act 1984, Code C, 2017).

Despite the introduction of PACE, police persisted in coercive and accusatorial interrogation practices and several notorious miscarriages of justice, such as the Guildford Four and Birmingham Six, came to light (Belloni & Hodgson, 2000; Gudjonsson, 2003; Williamson, 1993). Given that the police's hostility and intimidation tactics may have caused suspects in these cases to falsely confess to crimes that they did not commit, the Court of Appeal overturned a number of high-

profile convictions (Shawyer, Milne, & Bull, 2009). During this time, the public justifiably harboured deep-seated concerns about the police questioning of suspects (Williamson, 1993). In response, the Royal Commission on Criminal Justice (1991) was set up and building upon the resultant research, psychologists, lawyers, and police practitioners collaborated to develop a fair and ethical model for interviewing suspects: the PEACE model, which embodies the information-gathering approach by focusing on fact-finding rather than generating a confession (Kassin, Appleby, & Perillo, 2010). PEACE is a mnemonic for the recommended stages of the interview process; Prepare and plan before the interview, Engage with the suspect and explain their legal rights, invite an Account from the suspect and challenge or clarify any inconsistencies, Closure of the interview by way of summarizing what the suspect has said, and a post-interview Evaluation to enable the interviewer to reflect on their performance during the interview (Walsh & Bull, 2010). Through legislative changes such as PACE and nation-wide training of police officers in the PEACE model, the government sought to abolish the contentious concept of police 'interrogation' and instead promote 'investigative interviewing' (McConville, Hodgson, Bridges, & Pavlovic, 1994). In this way, the police interviewing of suspects in England and Wales was revolutionised.

The Current State of Police Interviews

Research has shown that the police generally comply with the PEACE model and PACE requirements when interviewing suspects, although a minority of interviewers still resort to manipulative tactics in serious cases (Bull & Soukara, 2010; Clarke & Milne, 2001; Pearse & Gudjonsson, 1996, 1999; Soukara et al., 2009). Moreover, while self-report might not reflect practice, police generally report that their aim in the interview is to get a truthful account from the suspect, rather than a confession (Soukara, Bull, & Vrij, 2002). Also in compliance with PACE, it is now an accepted practice for suspects to receive legal advice at the police station although only around half of all suspects request a lawyer while in custody, despite it being a free service for custodial suspects (Cape & Hodgson, 2014; Pleasance, Kemp, & Balmer, 2011). The success of the PEACE approach of interviewing suspects is underscored by its adoption in other countries such as New Zealand, Australia, and Norway (Kassin, Drizin, et al., 2010; Oxburgh, Walsh, & Milne, 2011).

Years have passed since the development of the PEACE interviewing approach, but the police and psychologists continue to collaborate on policing issues. For instance, organizations such as the Society for Evidence Based Policing and International Investigative Interviewing Research Group bring together academics and practitioners to exchange ideas and answer the question of what works in practice (Milne, Shaw, & Bull, 2007). It is against this backdrop that the strategic disclosure of evidence technique has developed. The police are trained to strategically disclose their evidence as it fits well with the PEACE model (Walsh, Milne, & Bull, 2016). Specifically, during the Account stage, the police can first elicit an account from the suspect and then while challenging the suspect's account, disclose their evidence to the suspect. The next chapter describes the strategic disclosure of evidence technique in greater detail and explores psychologists' and lawyers' contrasting perspectives regarding its usage in police interviews with suspects.

Chapter 2:
Strategic Disclosure of Evidence: Perspectives from Psychology and Law

In most criminal cases, the police possess some evidence—the basis for their suspicion—before arresting a suspect for questioning (Police and Criminal Evidence Act 1984, Code G, 2012). While questioning the suspect, the police are likely to disclose this evidence to the suspect. But when should they disclose their evidence? Early in the interview before the suspect starts talking, gradually throughout the interview one piece at a time, late in the interview once the suspect has finished talking, or perhaps even before the interview begins? Exactly when the police disclose their evidence while questioning a suspect has piqued the interest of psychologists and lawyers alike. Yet any discussions about police disclosure of evidence have remained separate in the psychology and law literatures—until now.

The current chapter outlines and critically evaluates the research from the psychological and legal literatures on the strategic disclosure of evidence. I write this chapter as an interdisciplinary researcher in the hope that it might eschew extreme positions, raise awareness about key issues, and encourage more psychological scientists and legal scholars to work together to understand the broader implications of the strategic disclosure of evidence in police interviews. Of course, police practice and policy should be informed by empirical work in both fields—but more interdisciplinary, collaborative research in this area will achieve a better understanding of how interviewing techniques grounded in psychological principles translate into a practical, legal context.

The Importance of Evidence Disclosure in Suspect Interviews

Before outlining the different methods of strategic disclosure, let us consider three reasons why the disclosure of evidence to a suspect is important. First, it is a basic legal requirement in Europe that a person suspected of having committed an offence is informed about the accusation that is the basis for their detention (e.g., Council Directive, 2012 applying to all 28 Member States of the European Union). This process exists to safeguard the fairness of the proceedings and to ensure the effective exercise of the rights of the defence—including challenging the lawfulness of detention.

Second, evidence disclosure is an established technique used by police officers interviewing suspects held in police custody prior to charge in a variety of jurisdictions. In a study of 161 recorded police interviews with suspects in London, the most common police tactic for eliciting information was presenting evidence to suspects (Pearse & Gudjonsson, 1997). Similarly, a survey of 631 American police officers and Canadian custom officials found that only 1% of officers reported "never" presenting a suspect with evidence while 22% reported "always" using this tactic (Kassin et al., 2007, p. 388). In a more recent study, almost half of the 42 US military and intelligence interrogators interviewed claimed to use evidence presentation tactics to elicit information from detainees (Russano, Narchet, Kleinman, & Meissner, 2014). Clearly the disclosure of evidence is a popular and important technique in forensic contexts.

Finally, evidence disclosure is important because it has been linked to confessions in various types of psychological research. In field research, for instance, an examination of recorded benefit fraud interviews conducted in England and Wales revealed an association between the disclosure of evidence and interviews in which the suspect shifted from denying the charge to making an admission (Walsh & Bull, 2012). Other field studies have examined the link between evidence and confessions more directly. When Icelandic and Northern Ireland prison inmates completed the Gudjonsson Confession Questionnaire, the results showed that inmates' perceptions of the evidence against them was one of their foremost reasons for confessing (Gudjonsson & Bownes, 1992; Gudjonsson & Petursson, 1991; Gudjonsson & Sigurdsson, 1999). Research with incarcerated Canadian offenders also showed that strong police evidence was the most important factor in offenders' decisions to confess (Deslauriers-Varin, Lussier, & St-Yves, 2011). Laboratory-based research has revealed similar results. In some studies, research assistants have persuaded people to cheat during an experiment. An experimenter then uses different police tactics to interrogate the subjects on whether they cheated or not before documenting their confessions and perceptions of the interrogation. Such studies have found that people's perceptions regarding how much evidence the experimenter held influenced whether or not they confessed (Horgan, Russano, Meissner, & Evans, 2012; Narchet et al., 2011). Taken together these studies suggest that when suspects are presented with strong incriminating evidence they tend to confess, presumably because denials seem futile.

It is clear that the disclosure of evidence is important for several reasons, and this goes some way to explaining why the disclosure of evidence has attracted the attention of psychological scientists conducting research in the psychology and law domain. In the past decade, there has been a surge of psychological research on how evidence may be initially withheld from the suspect and then strategically disclosed during the interview to detect deception and to gain more information from the suspect (for example, Clemens, Granhag, & Strömwall, 2011; Dando, Bull, Ormerod, & Sandham, 2013; Hartwig, Granhag, Strömwall, & Vrij, 2005). Crucially, strategic evidence disclosure forms part of the positive psychology movement: Researchers focus on identifying effective interviewing methods that law enforcement officials can use rather than exclusively detailing law enforcement officials' errors and biases (Meissner, Hartwig, & Russano, 2010). A small but growing body of research shows that strategically disclosing evidence when questioning suspects helps the police to detect lies. Thus, a number of psychological scientists now recommend strategically disclosing evidence to suspects (Hartwig, Granhag, & Luke, 2014; Sellers & Kebbell, 2009; Walsh & Bull, 2015).

In line with these recommendations, police forces in various countries, including Sweden (Fahsing & Rachlew, 2009), Australia (Moston, 2009), and England and Wales (King, 2002) already use strategic evidence disclosure techniques to interview suspects. Meanwhile, officers in other countries such as the United States of America are presently being trained to strategically use evidence when questioning suspects (Luke et al., 2016). Clearly police practice and policy in multiple countries already encourage strategically withholding evidence when questioning suspects of crime. Nevertheless, many legal scholars and practitioners have assumed an opposing position on strategic evidence disclosure and instead advocate extensive, pre-interview disclosure in which the suspect and their lawyer are informed of the evidence before entering the police interview (Cape, 2011; Jackson, 2001).

Given psychology research is likely to inform and bolster current police practices that already emphasize withholding evidence from suspects until the interview (Association of Chief Police Officers[1], 2014; Walsh et al., 2016), it is

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[1] Note that the Association of Chief Police Officers (ACPO) no longer exists—it has been replaced by the National Police Chiefs Council (NPCC).

important to reconcile psychologists' arguments for developing increasingly sophisticated methods of evidence disclosure, with lawyers' arguments against strategic evidence disclosure. Indeed, researchers, policy-makers, and practitioners can benefit from an overview of both the psychological and legal perspectives on strategic evidence disclosure when developing best practice. Thus the purpose of this chapter is to introduce a law perspective into the psychological literature, and a psychological perspective into the law literature, on strategic disclosure of evidence. Below I describe the strategic disclosure of evidence and its theoretical underpinnings before considering the conflicting arguments and research from the fields of psychology and law.

Strategic Disclosure of Evidence

The strategic disclosure of evidence can be grouped into two key forms: late disclosure and gradual disclosure. Both late and gradual disclosure of evidence form part of the interviewing technique known as the Strategic Use of Evidence (SUE) that was developed to detect deception (Hartwig et al., 2005). SUE comprises of a set of questioning and evidence disclosure tactics that amplify verbal differences between liars and truth-tellers.

Under the SUE method of *late disclosure*, the interviewer starts by asking for the suspect's account and asking several questions that can rule out other explanations for the evidence before revealing the evidence against the suspect (Granhag & Vrij, 2010). Thus, guilty suspects are not given a chance to fabricate a story that fits the existing evidence against them. Once the evidence is disclosed at the end of the interview, the suspect is required to explain any inconsistencies between their statements and the evidence. These 'statement-evidence inconsistencies' act as cues to deceit—liars are more likely to make statements that are inconsistent with the evidence when they are not aware that the police possess this evidence. Research suggests this technique works because liars, but not truth-tellers, tend to avoid or deny incriminating information in an effort to appear innocent (Hartwig, Granhag, Strömwall, & Doering, 2010). A liar, for instance, may claim to have never been inside a stolen car while unaware that the police have found the suspect's fingerprints on the stolen car's steering wheel. In this way, late disclosure can facilitate lie detection.

The SUE method of *gradual disclosure* also requires the interviewer to start by asking the suspect for an account and asking several other questions. Instead of

revealing all the evidence at the end of the interview, however, gradual disclosure involves revealing one piece of evidence at a time as the interview progresses (for a comparable gradual disclosure method, see Bull, 2014). English and Welsh police use a similar technique, referred to as 'drip-feed' or 'phased' disclosure, in which evidence is disclosed gradually across one or several interviews (Association of Chief Police Officers, 2014). With gradual disclosure of evidence, the interviewer manipulates the suspect's perception of the evidence so that initially it might appear as if the interviewer does not hold much evidence (Granhag & Hartwig, 2015). Accordingly, a lying suspect may make statements that contradict the evidence as well as omit some information. Yet, once some evidence is disclosed, the suspect may come to believe that the interviewer possesses more evidence than they actually do. The suspect may then unintentionally provide new information to the interviewer (Granhag & Hartwig, 2015). Additionally, when evidence is gradually revealed, a lying suspect may change their account to fit the evidence and thus contradict their own previous statements (McDougall & Bull, 2015). These contradictions are known as 'within-statement inconsistencies' and act as further cues to deception in interview settings.

Strategic Disclosure of Evidence: Theoretical Underpinnings

So, why do lying suspects contradict the evidence so much more than truthful suspects when they do not know what the evidence is? Researchers suggest that truthful and lying suspects tend to adopt different counter-interrogation strategies during the interview (Granhag & Hartwig, 2008, 2015; Strömwall, Hartwig, & Granhag, 2006). For lying suspects, information incriminating them in the crime is a threat—an aversive stimulus that the interviewer might or might not possess (Granhag & Hartwig, 2008; Hartwig et al., 2014). In response to this threat, lying suspects might use an avoidance strategy during the interview. For instance, they might avoid mentioning that they visited the crime scene when freely recalling their story. Alternatively, lying suspects might adopt a denial strategy, and deny, for instance, any connection to the crime when questioned directly about it. In both strategies, lying suspects deal with the threat of incriminating information by concealing it. Accordingly, empirical research shows that mock suspects place importance on monitoring and controlling critical information when trying to deceive an interviewer (Hines et al., 2010). In doing so, lying suspects tend to unknowingly contradict evidence that links them to the crime.

In contrast, truthful suspects are more consistent with the interviewer's evidence because they tend to be quite forthcoming with information and try to tell their story as it happened (Colwell, Hiscock-Anisman, Memon, Woods, & Michlik, 2006; Strömwall et al., 2006). Truth-tellers' forthcoming approach may reflect a belief that people get what they deserve, the *belief in a just world* phenomenon (Lerner, 1980), coupled with a tendency to assume that their inner states, thoughts, and emotions are evident to others, the *illusion of transparency* (Gilovich, Savitsky, & Medvec, 1998). Together, these concepts could explain why innocent suspects may come to believe that by talking to the police their innocence will shine through and justice will prevail (Kassin, 2005; Kassin & Norwick, 2004). Likewise, truthful suspects are likely to admit their presence at the crime scene even if the interviewer has not informed them of the evidence linking them to the crime scene. In this way, truthful suspects tend to make statements that are quite consistent with the evidence.

Research and Arguments from Psychology

So what are the benefits of strategically disclosing evidence to suspects in police interviews? Psychologists favour strategic disclosure of evidence primarily because it is an effective lie detection method—though it may have other benefits as well (Sellers & Kebbell, 2009). The SUE technique of late disclosure has ample support for detecting deception, much of which arises from experimental studies in which subjects commit mock crimes, or similar acts in the case of 'innocent' subjects, and are then instructed to convince interviewers of their innocence. The interviewers, who are typically researchers and on occasion, police officers, employ either early disclosure of evidence as a control or late disclosure when questioning subjects. Early disclosure involves presenting the suspect with all of the evidence at the start of the interview and then asking for the suspect's account and any further questions. Early studies revealed that late disclosure elicits more cues to deceit than early disclosure and that late disclosure leads accordingly to higher deception detection rates (Hartwig, Granhag, Strömwall, & Kronkvist, 2006; Hartwig et al., 2005). For instance, in one study, police trainees interviewed students about a mock crime (stealing a wallet) and when trainees disclosed the evidence late, lying students contradicted the evidence more (Hartwig et al., 2006). As a result, the trainees who used late disclosure were more accurate in judging which students were lying than the trainees who used early disclosure.

Further studies have also found that late disclosure produces more cues to deceit than does early disclosure in adult samples (Jordan, Hartwig, Wallace, Dawson, & Xhihani, 2012), child samples (Clemens et al., 2010), co-suspects who jointly committed a mock crime (Granhag, Rangmar, & Strömwall, 2015), and suspects lying about their future intentions (Clemens et al., 2011). A recent meta-analysis of eight empirical studies comparing liars and truth-tellers found that liars made more statements that were inconsistent with the evidence than truth tellers, and this effect was augmented by the use of late disclosure (Hartwig et al., 2014). Of course, liars cannot be equated to guilty suspects. Innocent suspects may lie too, for example, to protect the real perpetrator or to keep their own (non-crime related) affairs secret. Relatedly, innocent suspects can be mistaken or inconsistent in their alibis, or contradict the evidence which puts them at risk of appearing guilty (Luke et al., 2016; Strange, Dysart & Loftus, 2014). Indeed, it remains to be seen whether strategic evidence disclosure is effective in lie detection after an extended time delay between the crime and interview given that truth-tellers could forget their activity and also, unknowingly, contradict the evidence as liars tend to do (Hartwig et al., 2006; Vrij, Granhag, & Porter, 2010). Nonetheless, research thus far suggests that strategically disclosing the evidence to a suspect late in the interview can improve lie detection.

Although the psychological research on late disclosure is largely optimistic, the empirical support for gradual disclosure in lie detection is mixed. Some studies, for instance, suggest that gradual disclosure leads to more accurate lie detection than early or late disclosure (Dando & Bull, 2011; Dando et al., 2013). In these experiments, people were assigned to one of two roles in a video game: liars acted as terrorists and truth-tellers acted as builders. Next, subjects were interviewed about their activity in the game. The game generated multiple pieces of evidence implicating both liars and truth-tellers in potential terrorist activity and the interviewers presented this evidence early, gradually, or late in the interview process. In this paradigm, gradual disclosure of evidence fostered deception detection more than late disclosure of evidence. However, in another study, late disclosure elicited more cues to deceit than did gradual disclosure when researchers interviewed students about mock terrorist acts such as transferring bomb materials to a new location (Sorochinski et al., 2014). In yet another study, Japanese police interviewed people who were innocent or guilty of cheating during an experiment with different

interviewing styles, including the gradual disclosure of two pieces of evidence (Wachi et al., 2017). Gradually presenting evidence did not improve the police's ability to detect who was lying. In sum, the empirical research to date doesn't provide a clear picture about the effectiveness of gradual disclosure vs. late disclosure in terms of detecting deception.

On top of the potential benefits for lie detection, psychologists argue that there are at least four reasons why evidence should be strategically presented during suspect interviews. First, strategic disclosure may assist in validating confessions. If the police present all their evidence to the suspect early in the interview, it may be impossible to verify the suspect's confession—the information contained within it may simply reflect what the suspect learned before or during the interview rather than genuine memories of the crime (Sellers & Kebbell, 2009). In an analysis of proven false confessions statements, Garrett (2010) indicates how rich in detail and worryingly convincing the statements are and that this is likely due to the police, perhaps unintentionally, revealing case facts during the interview. Full, early disclosure essentially carries the risk of inadvertently contaminating a suspect's confession (Napier & Adams, 2002). Wholly aware of this, the police often justify withholding evidence from the suspect to test the truthfulness of any account or confession a suspect might make (King, 2002). In this manner, strategic evidence disclosure may assist in another form of truth seeking—identifying false confessions.

Second, psychologists favour the police strategy of initially withholding evidence from suspects because early disclosure of evidence may disrupt rapport building (St-Yves & Meissner, 2014). Though there are several definitions and conceptualizations of rapport building, it broadly refers to the "bond" or "connection" that a police interviewer may develop with the suspect during the interview (Vallano, Evans, Compo, & Kieckhaefer, 2015, p. 369). Rapport building has been described as an essential component of investigative interviews, one that police interviewers are advised to implement at the start of the interview (Yeschke, 2003). As evidence may contain inaccuracies, an early presentation of it may cause suspects to stop trusting the interviewer and become less co-operative (Sellers & Kebbell, 2009). In support of this claim, law enforcement practitioners and high-value detainees, such as suspected terrorists from Australia, Indonesia, Norway, the Philippines, and Sri Lanka, reported that confronting a suspect with evidence harmed rapport and resulted in greater resistance from the detainee (Goodman-Delahunty,

Martschuk, & Dhami, 2014). Given that high-value detainees are atypical and only a small minority of suspects, general police evidence disclosure practices cannot be based on this study alone. Nonetheless, by strategically disclosing evidence gradually or later in the interview, the interviewer may be better able to focus on rapport-building at the start of the interview.

Third, strategic evidence disclosure may result in fairer interviews. Some psychologists claim that suspects might find it fairer to give their account of what happened first, before being presented with the evidence against them (Sellers & Kebbell, 2009). Moreover, when planning strategic disclosure of evidence, interviewers need to think of alternative explanations that a suspect might offer for the evidence. Hence, forcing the interviewer to consider the evidence from various points of view might make them less guilt-presumptive when entering the interview with the suspect (van der Sleen, 2009). Given that investigators who presume guilt tend to use more coercive interview tactics, it follows that less guilt-biased police interviewers will conduct fairer interviews (Meissner & Kassin, 2004). To date, there is no published scientific evidence to support the notion that police officers are more open-minded and accordingly conduct fairer interviews or that suspects perceive the interview as fairer when the police employ late or gradual disclosure as opposed to early or pre-interview disclosure. Further research is needed to clarify whether strategic disclosure of evidence does indeed lead to fairer police interviews.

Fourth, there is a small amount of research to suggest that strategic evidence disclosure may prompt more information from the suspect but this research must be interpreted with caution. For instance, in a recent study of recorded benefit fraud interviews, gradual and late disclosure interviews were more likely to be associated with gaining comprehensive accounts from the suspect than early disclosure interviews (Walsh & Bull, 2015). However, without experimental manipulations, the direction of these associations remains unclear so it is impossible to determine whether the timing of evidence disclosure actually caused the suspect to provide a more comprehensive account. Moreover, because the researchers did not consider the effect of having a lawyer present at the interview, it is unclear whether some lawyers informed suspects about the evidence against them before the interview commenced. This is important. If a lawyer was present for any of the interviews, the lawyer is likely to have received some or all of the evidence before the interview began. In such cases, the lawyer would have informed the suspect of this evidence

and the suspect would have entered the interview knowing about the evidence regardless of whether it was disclosed to them early, gradually, or late in the interview.

Meanwhile, experimental studies have also found that strategic evidence disclosure could lead mock suspects to reveal more information compared to when the interviewers disclose the evidence early or not at all (May, Granhag, & Tekin, 2017; Tekin et al., 2015). By strategically disclosing evidence, the interviewers manipulated the suspects' perceptions of how much evidence the interviewers held. The researchers clarified that manipulating suspect perceptions about the evidence was not a deceptive tactic and was distinct from bluffing and false evidence ploys (Tekin et al., 2015). Critically, the studies did not include innocent suspects so the effects of leading an innocent suspect to wrongly believe that there may be more evidence against them remain unknown. Overall, there is some preliminary research to suggest that strategic disclosure of evidence may elicit more information from suspects but questions remain about the generalizability and reliability of these findings.

In sum, psychologists endorse the strategic disclosure of evidence for its efficacy in lie detection, its potential in eliciting more information from suspects, and for producing fairer interviews. Additionally, psychologists posit that an earlier disclosure of evidence risks interfering with rapport-building and contaminating any confession the suspect might ultimately make.

<center>**Research and Arguments from Law**</center>

In contrast to the psychologists, legal scholars and practitioners working in criminal justice settings are concerned about the strategic disclosure of evidence. Lawyers prefer pre-interview disclosure in which the lawyer—and therefore the suspect—receive all of the evidence before the interview begins. Accordingly, lawyers have raised a number of issues that are rarely discussed in the psychological literature on strategic evidence disclosure. Below each of these arguments are discussed in turn.

Central to lawyers' arguments against the strategic disclosure of evidence, is the notion that withholding evidence from the suspect is unfair. Specifically, by withholding evidence until the police interview, the balance of power is swayed largely in favour of the police. This breaches the fair trial guarantees put in place by Article 6 of the European Convention on Human Rights, in particular, the principle

of 'equality of arms', that seeks to ensure that the accused is not at a "substantial disadvantage vis-à-vis his opponent" (Toney, 2001, p. 39) Crucially, the fair trial protections set out in Article 6 also apply to the pre-trial process (*Imbrioscia v. Switzerland*, 1994), such as the right to custodial legal advice regarding the police interview. In other words, the police detention and questioning of suspects take place within a legal framework that recognizes the suspect's defence rights (for example, see Council Directive, 2012 on the right to information in criminal proceedings or Police and Criminal Evidence Act 1984, Code C, 2017). Note that the police questioning of a suspect is crucial to the resolution of a case and is often what determines the suspect's fate, more so than what occurs in the courtroom (Cape, 2011). Yet, unlike the court trial, the police interview represents a large imbalance of power and resources between the state and the individual. For instance, the accused cannot challenge the lawfulness of their detention and may struggle to produce a reliable account of their actions without some knowledge of the police's evidence and the basis for the police's accusation. Thus, in order to restore the equality and fairness of an adversarial procedure, the suspect and their legal representative need to be provided with greater disclosure of case information at the outset (Jackson, 2001).

The first way in which police non-disclosure greatly diminishes the legal safeguards in place to protect suspects and allow them a fair proceeding is by undermining any legal advice the accused may receive. As the European Court of Human Rights highlighted in *Sapan v. Turkey* (2011), not allowing the lawyer to see the case file can "seriously hamper her ability to provide any sort of meaningful legal advice" to the client (p. 4). The solicitor, unaware of the case information held by the police, must navigate the uncertainty borne out of such police tactics and attempt to advise their client (Clough & Jackson, 2012). In his comprehensive guide to custodial legal advice, Cape (2011) consistently underscores the importance of acquiring information from the police as any legal advice in the face of non- or limited disclosure is likely to be inadequate. Even if the client has a genuine account of what happened, the lawyer confronted with an information deficit may not be able to determine whether or not it is a strong enough defence. When faced with non-disclosure, lawyers tend to advise their client to remain silent during the police interview (Quinn & Jackson, 2007). Silence can serve as a negotiation tool to evoke some disclosure from the police (Blackstock et al., 2014). Given that around 45% of

suspects in English/Welsh police stations request lawyers, the impact of strategic disclosure on custodial legal advice is a major concern (Pleasence et al., 2011).

It is also important to consider the remaining 55% of suspects who eschew legal representation. Legally unrepresented suspects may be particularly vulnerable to the heightened pressure of being presented with new, unanticipated evidence by the police. This is a second way in which strategic evidence disclosure may be unfair to suspects: It may be too stressful. The experience of being detained is reportedly imbued with fear, worry, confusion, humiliation, uncertainty, and isolation (Hodgson, 1994; Sanders et al., 2010). Non-disclosure may prevent the suspect, already vulnerable as a result of custodial conditions, from being prepared to answer questions and respond to allegations coherently. In practice, inconsistencies in a suspect's account may indicate the suspect is attempting to deceive the police, however, the inconsistencies may also be a result of the suspect's state of distress. As evidence is unveiled during the course of the interview, the innocent suspect in particular is likely to face greater shock and disorientation (Ofshe & Leo, 1997). Without knowing the amount of evidence held by the police, the suspect may perceive the situation to be hopeless. Indeed, some legal scholars suggest that strategic disclosure is a form of passive deception (Sanders et al., 2010). In this way, strategic disclosure of evidence may feed into the immense pressure suspects are placed under when in custody. Crucially, one of the primary reasons that lawyers want pre-interview disclosure is to ensure that the suspect provides a reliable and accurate account when questioned. As pre-interview disclosure might help the suspect consider the evidence more carefully before the interview and respond to questions more coherently during the interview, the police may be able to collect more reliable evidence from the suspect, which in turn benefits the prosecution. In this way, the interests and aims of defence lawyers and the police investigation could overlap. In essence, legal scholars argue that pre-interview disclosure allows the suspect to enter the inherently stressful police interview more prepared.

So far, I have discussed how strategic disclosure of evidence may be unfair because it undermines custodial legal advice and places more pressure on the suspects being questioned. In addition to the unfairness of strategic disclosure by the police, legal scholars argue that preventing suspects from knowing the evidence against them early on has important practical consequences, specifically inefficiency and poorer relations between the police and defence. For instance, strategic

disclosure of evidence may cause avoidable delays (Clough & Jackson, 2012). Some recommended strategies for lawyers to deal with police attempts at strategic disclosure include persistently requesting information or stopping the interview whenever new evidence is revealed in order to consult with the client (Cape, 2011). Each of these strategies can prolong the suspect's detention and questioning. If such strategies fail, the lawyer may use the first interview as a way of gaining sufficient information and then request a second interview. In this case, the suspect will remain silent during the first interview, and once the evidence is revealed the suspect may then request another interview in order to defend themselves. This is a strategy that defence lawyers report advising their clients, along with choosing to interrupt the interview to consult with their client every time the police disclose evidence (Blackstock et al., 2014; Kemp, 2010; Quinn & Jackson, 2007). The police are warned that these are likely interview outcomes when they provide limited disclosure to the lawyer and withhold key evidence (Shepherd, 2007).

Alternatively, suspects who may have made an immediate admission in response to pre-interview disclosure of evidence at the police station may then choose to remain silent during the interview and instead enter a guilty plea at court. Full pre-interview disclosure has the potential to allow the police, the lawyer, and the suspect to promptly gain a complete understanding of the situation and avoid the financial and emotional costs of trial (Azzopardi, 2002). In sum, strategic disclosure of evidence in practice may be inefficient and take unnecessary additional time and resources.

Finally, strategic disclosure of evidence may sour relations between the suspect and the interviewer, and dramatically affect the suspect's willingness to respond to police questioning (McConville & Hodgson, 1993). Empirical research in England and Wales, including field observations of police station attendances by lawyers, has demonstrated that lack of disclosure is a point of conflict and misunderstanding between lawyers and police officers (Blackstock et al., 2014; Kemp, 2010, 2013; Quinn & Jackson, 2007; Skinns, 2009). The resulting tension and reduced cooperation between lawyers and the police can cause further delays and create a more hostile environment in which the suspect is interviewed. This is in contrast to the psychologists' arguments that withholding evidence and instead focusing on building rapport will improve the suspect's perception of the interviewer and lead to a more favourable interview outcome for the police.

Of course, the discrepancy between psychologists' and lawyers' claims about police-suspect relations may be an artefact of how psychology researchers generally approach the police interview. Psychological research on strategic evidence disclosure during police interviews rarely acknowledges the legal context of the detention and questioning of a suspect. The police interview is a legally regulated phase in a criminal investigation, during which legal safeguards must be respected. Of particular relevance to strategic evidence disclosure is the presumption of innocence and the suspect's right to information (Police and Criminal Evidence Act 1984, Code C, 2017; Council Directive, 2012 on the right to information in criminal proceedings). Relatedly, psychologists tend to consider the interview as an interaction primarily between the police and the suspect—an approach that may be appropriate for some countries where lawyers have either a minimal or no role in the police interview—but not for other countries (e.g., England and Wales). However, following the *Salduz v. Turkey* (2008) case and the Council Directive (2013) on the right of access to a lawyer in criminal proceedings, more European countries are adopting the right to a lawyer during police questioning (Cape & Hodgson, 2014), and such a discrepancy between the two disciplines is worthy of further investigation. In essence, legally represented suspects are unlikely to perceive the police as acting fairly when the police withhold evidence because lawyers will inform their clients that the police may be misleading them and violating legally enshrined principles, such as the right to information. Moreover, the resulting tension between lawyers and police may actually interfere with the police's attempt to build rapport with the suspect. As a result, strategically disclosing evidence may have an adverse impact on the relations between the police and both the suspect and his or her lawyer.

By way of summary, lawyers argue that strategically disclosing evidence to suspects is unfair as lawyers cannot provide informed legal advice to their clients nor challenge the lawfulness of their client's detention while suspects are likely to be placed under greater pressure without knowing all the evidence the police hold. Moreover, strategic disclosure of evidence may also reduce the efficiency of police station cases and lead to greater conflict between lawyers and police. Notably, lawyers do concede that there are exceptional circumstances during which the police may have no other option but to withhold evidence, for instance, to protect national

security or to prevent prejudicing of an on-going investigation (Blackstock et al., 2014).

Summary

In sum, psychologists have suggested strategic disclosure of evidence is a promising method for police interviews, highlighting its benefits for lie detection, verifiable confessions, fairer interviews, uninterrupted rapport-building, and eliciting information from suspects. Meanwhile lawyers continue to resist police disclosure tactics and express concerns about the detrimental effects that strategic disclosure may have on a suspect's legal rights, in particular custodial advice, a suspect's interview experience, efficiency, and working relations between lawyers and police. In this way, psychologists' and lawyers' views about evidence disclosure are at odds with one another.

Chapter 3:
Research Outline

As described in Chapter 2, psychologists and lawyers have a host of contrasting arguments and research regarding the strategic disclosure of evidence. Many empirical questions arise from these conflicting views and given that police forces around the world are already using various strategic disclosure techniques, it is important to understand the associated benefits and risks of strategic evidence disclosure during police interviews. The time is ripe for an interdisciplinary effort in determining the evidence disclosure methods that best serve the criminal justice system. So, to move forward in resolving the discrepancies between the two fields, my PhD programme took an interdisciplinary, psychology-law approach to understanding the broader implications of strategic disclosure of evidence during suspect interviews. The current chapter looks at the nature and importance of interdisciplinary research and outlines the research questions and studies presented in in this thesis.

Interdisciplinary Research

Interdisciplinary research can be defined broadly as "a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice" (National Research Council, 2004, p.2). Interdisciplinary research is on the rise (Jaffe, 2009), and while it may be challenging, its collaborative nature makes it more innovative and impactful (Bornstein, 2016; Wuchty et al., 2007; Yamamoto, 2013). Crucially, interdisciplinary research is useful when addressing real-world problems, such as the investigation of crime, that are relevant to multiple disciplines (Bornstein, 2016; Ellis, 2009).

Indeed, the very application of psychological research to the legal system requires an understanding of theories, concepts, and perspectives from both psychology and law. As such, there are a number of high-impact, scholarly journals that encourage interdisciplinary, psychology-law research such as, *Law and Human Behavior*, *Psychology, Public Policy, and Law*, and *Law and Society Review*. Yet,

research on the authorship of papers published in these journals suggests that psychologists gravitate towards publishing in psychology-law journals, such as *Law and Human Behavior* and *Psychology, Public Policy, and Law,* while legal scholars tend to publish in more law oriented outlets, such as *Law and Society Review* (Bornstein, 2016). Moreover, legal psychologists might not read traditional criminal law journals while lawyers might not read applied psychology journals—as evidenced by the lack of communication and collaboration between the two fields on the topic of strategic evidence disclosure. Put another way, collaborative psychology-law research, even in the area of psychology and the law, may be rare.

This is unsurprising given the challenges of bringing together two disciplines that vary in a number of aspects ranging from terminology (e.g. Strategic Use of Evidence or SUE in psychology is comparable to 'phased disclosure' in law), theoretical underpinnings (e.g. cognitive theories of suspect deception versus due process values in criminal procedures), empirical methods (e.g. psychological, lab-based experiments with mock suspects versus legal scholars' ethnographic, field observations of police practice), to writing style (e.g. scientific reports versus law reviews), and of course, perspectives on policy and practice (e.g. when the police should disclose their evidence to suspects and lawyers). Despite such challenges, bringing together psychological and legal approaches might be ideal when addressing an issue relevant to both disciplines, such as the timing of evidence disclosure to suspects at the police station.

To accommodate both disciplines, I took a number of steps. First, my PhD programme was co-supervised by academics from psychology and from law. Second, the research was informed by the literature and past research from both disciplines. Thus, the PhD explored research questions posed by both psychological and legal work regarding the strategic disclosure of evidence. Third, in addressing these research questions, I employed empirical methods that are traditionally used in psychology (such as experiments) and in law (such as field observations) as well as in both disciplines (surveys). Fourth, work from my PhD programme has been published in interdisciplinary journals that are psychology dominated as well as law oriented to ensure that the findings transcend each discipline.

Outline of Studies

In this PhD programme, the overarching research question is: what are the broader implications of strategic disclosure of evidence in suspect interviews?

Psychology research, for instance, has focused primarily on how strategically disclosing evidence to suspects during the suspect interview helps the police catch the suspect lying (e.g., Hartwig et al., 2014). In contrast, my PhD research programme took a much broader look at strategic disclosure of evidence and how it fits into the wider police practices of detaining and questioning suspects. In doing this, the research incorporated lawyers' concerns about the practical implications of the police withholding evidence from suspects. Crucially, the research considered how strategic evidence disclosure protocols impact the police interviewer, the legal advisor, as well as the suspect being questioned.

Chapters 4–7 outline seven studies that address the broader implications of the police strategically disclosing evidence to suspects and their legal representatives. More specifically, Chapter 4 starts with a field study that examined current police disclosure practices, private lawyer-client consultations, and suspect interviews for a variety of serious and lesser offences. This study involved a month of observations at police stations around England and offers insights into the formal police disclosure process involving lawyers and how lawyers rely upon this disclosure to advise their clients in custody.

Chapter 5 then asks the question of how the timing of police evidence disclosure impacts lawyers' advice to suspects. To answer this question, 100 criminal lawyers from across England and Wales took part in a survey in which they advised a hypothetical client at the police station. In this study, I systematically varied when the lawyers received disclosure from the police to investigate the nature of custodial legal advice with and without police disclosure.

Next, Chapter 6 looks at the extent to which people who think of alternative explanations of the incriminating evidence, a crucial part of the strategic evidence disclosure technique for interviewers, are less likely to believe in the suspect's guilt. To test whether such interview preparation influenced people's guilt beliefs about a suspect, I conducted three experiments and a mini meta-analysis, in which lay people took on the role of interviewers and judged the suspect's guilt. Some interviewers generated alternative explanations of the evidence in a criminal case and used these as the basis for their interview questions for the suspect, while other interviewers did not.

Chapter 7 presents two experiments which examine how truthful and deceptive mock suspects respond to interview questions, when the evidence is

strategically withheld from them, after a more forensically-relevant time delay between the offence and the suspect interview. The first experiment investigated how mock suspects respond to specific SUE interview questions about the offence either immediately after the mock crime or after a time delay of two months. I was primarily interested in whether truthful suspects might forget what they did on the day of the offence when questioned a few months later, and as a result, contradict the evidence to the same extent as deceptive suspects. In the second experiment, I presented independent laypeople with the mock suspects' responses to the SUE interview questions from the first experiment and asked them to detect who was telling the truth and who was lying. These experiments essentially examined how effective the SUE technique might be in lie detection when suspects are questioned two months after the alleged offence compared to immediately after the offence.

Finally, the thesis finishes by bringing together the findings regarding strategic evidence disclosure from the lawyer's perspective (Chapters 4 and 5), the police interviewer's perspective (Chapter 6), and the suspect's perspective (Chapter 7), and highlights the practical implications for police interviewing practice in Chapter 8's General Discussion.

Chapter 4:

Behind Closed Doors: Live Observations of Current Police Station Disclosure Practices and Lawyer-Client Consultations

When the police question a suspect about a crime, they can disclose their evidence to the suspect or their lawyer if they are represented, either before or during the interview. They can even do a combination of the two. Alternatively, the police may choose to withhold their evidence from the suspect and their lawyer until a later interview. Indeed, how and when the police disclose their evidence to suspects and their lawyers during the interview process is largely unregulated by the law in England and Wales (Clough & Jackson, 2012). So, how do the police in England and Wales currently disclose their evidence to suspects and their lawyers? In this chapter, I draw upon live observations of police disclosure to lawyers, the lawyer-client consultation, and the suspect interview, to offer a close look at how police disclose their evidence both before and during the suspect interview.

Introduction

Until June 2014, the police in England and Wales were entirely free to decide how much evidence they disclose and whether to disclose it before questioning the suspect, while questioning the suspect, or not at all (*R v. Imran and Husain*, 1997). Field research, as well as interviews with police officers and lawyers, suggest that in practice, there is substantial variation in the level of pre-interview evidence disclosure. Some police are completely forthcoming with evidence, disclosing extensive details of the case matters to lawyers, while others reveal no evidence at all prior to the suspect interview (Blackstock et al., 2014; Kemp, 2013; McConville & Hodgson, 1993; Quinn & Jackson, 2007). In these studies, the different disclosure practices depended on factors such as how forthcoming individual officers were and whether the officer had a good relationship of trust with the lawyer (e.g., Blackstock et al., 2014).

The purpose of disclosure is understood differently from the police and defence perspectives. Defence lawyers (and many criminal justice scholars) understand disclosure within a fair trial rights context in which suspects need to know the case against them in order to determine how and whether to respond. This has become increasingly important given the weight attached to the suspect's

responses or silence, both for inferences at trial and the possibility of alternative forms of case disposition. Both criminal justice scholars and lawyers have highlighted the difficulty in deciding on an interview strategy for the suspect when disclosure is limited (Blackstock et al., 2014; Sanders et al., 2010). For the police, disclosure is understood in the context of their investigation; it is used as a tool to undermine the credibility of uncooperative suspects and obtain admissions. The police may hold back evidence to test the veracity of a suspect's story (Association of Chief Police Officers, 2014). As a result, police and lawyers tend to disagree over what is an appropriate level of police disclosure (Kemp, 2010, 2013; Skinns, 2009).

More recent field research suggests that the police do routinely offer lawyers a summary of the evidence in a case before questioning suspects (Blackstock et al., 2014). The police may be motivated to make some pre-interview disclosure to lawyers because the police know that if they do not, lawyers may protest the lack of disclosure and advise their client to make no comment during the interview (Blackstock et al., 2014). Alternatively, the police may choose to disclose some information before the interview so that if the suspect chooses to remain silent during interview, adverse inferences may be drawn from the suspect's silence in court (Cape, 2015). While the police may benefit from offering lawyers some pre-interview disclosure, the extent of evidence disclosure remains ultimately at the discretion of each interviewing officer.

In June 2014, the European Union legislated the EU Directive on the right to information in criminal proceedings (Council Directive, 2012), which, inter alia, requires the police to disclose why a person is suspected of an offence before questioning them. As the Police and Criminal Evidence Act (1984) Code of Practice C previously only required the police to disclose the basic reasons for the suspect's arrest and detention, it was revised to encompass this new pre-interview disclosure requirement:

> Before a person is interviewed, they and, if they are represented, their
> solicitor must be given sufficient information to enable them to understand
> the nature of any such offence, and why they are suspected of committing it
> (see paragraphs 3.4(a) and 10.3), in order to allow for the effective exercise
> of the rights of the defence. However, whilst the information must always be
> sufficient for the person to understand the nature of any offence (see Note
> 11ZA), this does not require the disclosure of details at a time which might

prejudice the criminal investigation. (Police and Criminal Evidence Act

1984, Code C, 2017, p. 36)

In addition to this broad disclosure requirement, the Notes for Guidance specify the minimum level of pre-interview disclosure as follows:

The requirement in paragraph 11.1A for a suspect to be given sufficient information about the offence applies prior to the interview and whether or not they are legally represented. What is sufficient will depend on the circumstances of the case, but it should normally include, as a minimum, a description of the facts relating to the suspected offence that are known to the officer, including the time and place in question. This aims to avoid suspects being confused or unclear about what they are supposed to have done and to help an innocent suspect to clear the matter up more quickly. (Police and Criminal Evidence Act 1984, Code C, 2017, p. 39).

Thus, the revised Code of Practice essentially allows the police to decide the level of disclosure and whether it is sufficient for each case. Put another way, the police are still at liberty to withhold the majority of their evidence before or while questioning a suspect (Cape, 2015). This may not allow "for the effective exercise of the rights of the defence" (p. 36) as set out in Code of Practice C, but will fulfil the minimum requirements as set out in the Notes for Guidance (Police and Criminal Evidence Act 1984, Code C, 2017). For example, consider a murder case that involves DNA samples, CCTV footage, and the suspect's fingerprints. The police need only disclose that they found the suspect's fingerprints at the crime scene for the suspect to understand why they are suspected of committing the crime. The police could withhold any DNA evidence and CCTV footage, and choose to reveal it only after questioning the suspect so as not to prejudice their investigation. Indeed, the Association of Chief Police Officers (ACPO) responded to the new disclosure requirement by emphasizing the importance of withholding some evidence to test the suspect's account (2014). Meanwhile, the College of Policing have not issued any guidance or taken a clear stance on police disclosure practices. In essence, the police prefer to get the suspect's version of events first before disclosing their evidence to the suspect (Kemp & Hodgson, 2016). Thus, even with the implementation of the EU Directive on the right to information, the police can withhold much of their evidence before questioning a suspect.

Like ACPO, some psychologists recommend that the police should strategically withhold evidence from the suspect until they have obtained an initial account during the interview—using the SUE approach (Hartwig et al., 2014). The reasoning is that the police might detect whether a suspect is lying by checking how consistent the suspect's account is with the evidence (Hartwig et al., 2006; Luke et al., 2016). Indeed, there is some psychological research to suggest that questioning a suspect first and then strategically disclosing evidence helps interviewers detect lies (Clemens et al., 2010, 2011; Hartwig et al., 2005, 2006). In these psychology studies, people take on the roles of suspects and interviewers. The suspects either commit a mock crime—such as taking a wallet from a bookshop—and lie about it to the interviewer, or they complete a benign act—such as visiting the bookshop in search of a book—and tell the truth about it to the interviewer. These suspect behaviours are intended to mimic the behaviours of lying and truth-telling suspects, though in reality, not all lying suspects are guilty of a crime and not all innocent suspects are truthful during the interview. All suspects are then implicated in the mock crime by circumstantial evidence such as CCTV footage showing the suspect entering the bookshop. The interviewers, equipped with this evidence, typically question a suspect in one of two ways: by disclosing all of their evidence to the suspect early in the interview or by disclosing their evidence strategically late in the interview, after the suspect has provided an account. Generally, when lying suspects know the evidence against them, they fabricate an account to fit the evidence and interviewers have a harder time identifying whether the suspect is lying or telling the truth. In contrast, when suspects are unaware of the evidence against them, lying suspects contradict the evidence more than truth-telling suspects. For instance, a lying suspect might deny entering the bookshop to distance themselves from the crime, whereas a truth-telling suspect might admit to being in the bookshop (Hartwig et al., 2014). As a result of these inconsistencies between what the suspect says and what the evidence shows, interviewers are better able to detect whether a suspect is lying or telling the truth when they withhold and strategically disclose evidence.

Of late, psychologists have developed ways to withhold and strategically disclose even a single piece of evidence for the purposes of deception detection: the interviewer might initially introduce a piece of evidence in very general terms, but as the interview progresses, the interviewer might present that piece of evidence as increasingly precise and strong (Granhag, Strömwall, Willen, & Hartwig, 2013).

Returning to the murder case example, the interviewer might initially tell a murder suspect that they have information suggesting that the suspect visited a certain location, such as a hotel. Over the course of the interview, the interviewer might gradually reveal that they actually have CCTV footage showing the suspect entering the victim's hotel room with a weapon. This gradual release of increasingly precise and compelling evidence is to encourage lying suspects to contradict the evidence or to change their own account during the interview, thus making the suspect's attempt at deceit apparent. Again, psychological studies with people playing the roles of suspects and interviewers suggest that gradually reframing a single piece of evidence makes it easier for interviewers to identify which suspects are lying and which suspects are telling the truth (Granhag et al., 2013, 2015). Proponents of the SUE approach highlight that it fits well with English and Welsh interviewing protocols (Granhag & Hartwig, 2015). Holding back precise details of the evidence is certainly compatible with the current disclosure requirements for police (Cape, 2015). These psychology experiments, however, do not take account of the custodial context within which the criminal suspect is questioned, nor the legal and evidential factors to be considered, which may affect how and whether a suspect should answer police questions. Innocent suspects may lie to protect others, or because they do not understand the accusation, or they have insufficient information around which to frame an accurate response.

In light of the introduction of a limited formal disclosure requirement and the growing body of psychology research that recommends delaying evidence disclosure, I was interested in how the police currently disclose evidence in practice. Although many studies have analysed electronically recorded police interviews (e.g., Kemp & Hodgson, 2016; Pearse & Gudjonsson, 1996, 1999; Soukara et al., 2009; Walsh & Bull, 2010, 2015), fewer studies have examined pre-interview disclosure and lawyer-client consultations as they occur (e.g., Blackstock et al., 2014; McConville & Hodgson, 1993; McConville et al., 1994). This is partly because lawyer-client consultations are private and confidential—typically, the lawyer's notes are the only record of the consultation. Moreover, police forces vary in their practices of recording the police disclosure that is provided to lawyers (Shepherd, 2007), so some police forces might have audiotaped records of their disclosure to lawyers, some might only have handwritten notes of their disclosure meeting with the lawyer, and others, no record at all. Thus, I observed police disclosure briefings

and lawyer-client consultations live at the police station. My observations took place in late 2015, following the revisions to PACE, Code of Practice C requiring the police to provide some pre-interview disclosure. In this chapter, I offer a glimpse into pre-interview disclosure practices, lawyer-client consultations, and the police questioning of suspects at a sample of police stations in England and Wales.

Research Methodology

Negotiating Access

Two law firms allowed the researcher to shadow all of their police station attendances for two weeks each. The study was given ethics approval by the University of Warwick's School of Law and both law firms were informed of the measures in place to ensure the confidentiality of their lawyers and their clients in the consent forms. The lawyers were also informed that the researcher would be guided by what the lawyer considered to be in the best interests of their client—for example, if it was appropriate for the researcher to be present when the client was vulnerable.

Nature of Observations

The researcher was based at the law firm during the study period and accompanied any lawyers who attended the police station. As noted in other field studies, the caseload was unpredictable—even during days when the firm was on call as duty solicitor there were often no cases (e.g., Blackstock et al., 2014). On other days, several cases came in simultaneously. On these occasions, the researcher shadowed the lawyer who attended the first case that was ready. To maximise observations and to gather a representative sample, the researcher made herself available to attend cases that came in after working hours, as well as during the day.

Upon arrival at the police station, the lawyer introduced the researcher to the custody sergeant and the interviewing and disclosure officers on the case as an observing PhD student. The police had no objections to the presence of the researcher. The researcher observed any interactions between the lawyer and police, including the pre-interview disclosure briefing, as well as lawyer-client consultations. The client was fully informed of the researcher's role and interest in evidence disclosure, that the researcher was not part of the police nor the law firm, and that the client could ask for the researcher to leave at any point during the consultation or interview. Only one client was uncomfortable with the researcher's presence and requested that she left. Information from that case has not been

included in this study. Following the pre-interview consultation, the researcher observed the police interview. The researcher did not participate in the disclosure briefing, the client consultations, or the interview, other than to introduce herself on the interview recording. Following the interview, the police often informed the lawyer whether the client would be bailed, charged, or cautioned.

Recording and Analysing Data

For each case, the researcher completed a case log pro forma that included details about the lawyer, police station, case, suspect, consultation, and interview. This included the timings of the initial client consultation and police interview. The researcher also recorded detailed observational notes in a field diary throughout the police station attendances. These observational notes included who said what throughout the interview process. Following the field observations, the researcher typed up the notes and read through them to identify patterns in police disclosure practices—the main research theme of this study. Specifically, the researcher described and categorized the nature and format of police evidence disclosure before and during the interview in each case and whether lawyers referenced this disclosure in their advice to clients during their private consultations. The goal of this analysis was to provide a descriptive discussion of how and when the police disclosed their evidence to suspects and lawyers during the interview process.

Findings and Discussion

Sample of Cases

A total of 17 police station attendances (17 suspects, 16 cases) were observed over a four week period in 2015 with two law firms in two large, metropolitan cities in England. Five lawyers, including three police station accredited representatives and two solicitors, attended the cases. In total, three police forces were observed at nine police stations.

Suspects were aged between 16–64 years old ($M = 30.76$, $SD = 12.67$ years), 16 suspects were male, one was female. Suspect ethnicities, as recorded by lawyers, included British-White (47.1%), British-Mixed (17.6%), British-Asian (5.9%), British-Black (5.9%), Bangladeshi (5.9%), Caribbean-Black (5.9%), Jamaican-Black (5.9%), and Other-Black (5.9%). Suspects were arrested (64.7%), attended voluntarily (17.6%), or attended on bail (17.6%). All three juvenile suspects in the sample, as well as one suspect who had learning difficulties, had an appropriate adult

present. The suspected offences varied widely across cases, ranging from arson, rape, and grievous bodily harm to theft and possession of drugs.

When consulting with their lawyer, most suspects (94.1%) made claims about whether they were innocent or guilty. Six suspects claimed to be guilty (35.3%), one of which claimed to be guilty of a lesser offence and another claimed to have committed the offence by accident. Ten suspects claimed to be innocent (58.8%), although, one suspect did not understand that his actions amounted to a criminal offence. Once this particular suspect provided his account to the lawyer, the lawyer informed the suspect that he was guilty of the offence according to the law. The remaining suspect did not make any statement regarding his guilt or innocence.

The length of the pre-interview consultations between the lawyer and client ranged from 8–73 minutes ($M = 25.2$, $SD = 17.4$ mins). The length of the police interview ranged from 6–62 minutes ($M = 25.8$, $SD = 18.5$ mins). Finally, the outcomes of detention for suspects were as follows: bailed to return (41.2%), bailed and cautioned (5.9%), charged (5.9%), charged and remanded (5.9%), left station (voluntary suspects, 11.8%), no further action taken (17.6%), recalled to prison (5.9%), and unknown (5.9%). Thus, in some cases, the observed interview led the police to make a decision, such as charging the suspect, which moved the case forward.

Key Findings

Using the qualitative data collected in the field diary, I describe key insights into police disclosure practices and the lawyer-client consultations in this study.

Pre-interview disclosure was a fixed practice. Pre-interview disclosure, whether it was minimal or comprehensive, always took place—in both cities, across nine police stations, and three police forces. It was a fixed practice, as the officer in charge of the case would be ready to provide pre-interview disclosure as soon as the lawyer arrived at the police station. This was a shared expectation of those involved in the custody procedure. For instance, one custody officer checked whether the lawyer had been given pre-interview disclosure yet (Case 1). Moreover, the police typically had a consultation room ready for the purpose of pre-interview disclosure once the lawyer arrived at the police station (Cases 1–3, 5–9, and 11–15).

Pre-interview disclosure encompassed both disclosure of evidence and other case matters, thus serving as a general pre-interview briefing. Before arriving at the police station, lawyers often received only a brief email or phone call informing

them that a client was arrested. During pre-interview disclosure, the police briefed the lawyer about the allegation, the arrest, the offence(s), the evidence, and the client (including their fitness, drug test results, and criminal record). Such information, aside from the evidence, is highly useful as lawyers may rapidly gain an understanding of the case and the client's situation (Cape, 2011).

Notably, in one case, while waiting for the lawyer to arrive at the police station, the researcher observed the police make full disclosure directly to the suspect (Case 15). In this case, the suspect was attending voluntarily and the interviewing officer disclosed the victim's allegation of criminal damage, the lack of forensic and eyewitness evidence, and that the interview was simply to gain an initial account. Note that ACPO (2014) have discouraged the police from making disclosure directly to a suspect as the suspect might have questions about the information disclosed, and as a result, the suspect may mistake the disclosure process for the interview. Overall, the police in this sample complied with the revised PACE Codes of Practice and briefed lawyers on at least basic case information before the interview as routine practice.

Format of pre-interview disclosure. Pre-interview disclosure was given to lawyers either verbally (52.9%) or in a typed document (41.2%; format unknown for 5.9% suspects). Sometimes, the disclosure documents included more than just the case evidence and information. In one disclosure document, the police reinforced their role as gatekeepers to the case evidence by reminding the lawyer that they were under no obligation to provide disclosure but they were offering it to help the lawyer advise their client (Case 5). In another disclosure document, the police encouraged lawyers and their clients to provide an account to the police. Specifically, the disclosure document informed the lawyer of the topics that would be covered in the interview before reminding the lawyer that this was an opportunity for the client to put forward a defence and alibi and that the police remained open-minded and unbiased—that the police were concerned only with truth and accuracy (Case 10). Such statements from the police are standard practice as illustrated by earlier research (e.g., Blackstock et al., 2014).

Notably, even when disclosure was given in a typed document, detectives were still open to questions from the lawyer. With the exception of one case (Case 10), all lawyers asked further questions when given pre-interview disclosure. In the exceptional case, the lawyer clarified to the researcher that they did not ask any

questions because they assumed that the police would not provide further information for a rape case. Moreover, the police disclosure document informed the lawyer that if they did require further information, they would have to put this request in writing for the police to consider. As the police intended to interview the suspect immediately, even if the lawyer did request further information, the lawyer may not have received further disclosure before the initial interview with the suspect.

In the remaining cases, lawyers asked the police several probing questions, for example, whether there was any CCTV footage of the incident (Case 9), whether the client's clothing matched the victim's description (Case 11), whether the client's clothing would be tested for the victim's DNA (Case 11), and whether the victim had made any allegations against the client in the past (Case 15). Through these questions about the existing evidence, or lack thereof, and the evidence the police were still investigating such as DNA samples, lawyers acquired case information that was not included in the disclosure document and established the strength of the case against their client. Subsequently, when advising their clients on an interview strategy, lawyers tended to refer to the overall amount and strength of evidence that the police held. For instance, when a lawyer judged the evidence to be weak she advised the client that there was no need to submit a defence at this stage and recommended making no comment in the interview (Case 11). In sum, lawyers maximised how much information they received before the interview, regardless of the format of disclosure, and in turn, used this information to deliver advice to their clients.

Lawyers rarely saw the actual evidence before the interview. The police rarely released victim or witness statements, CCTV footage, or photographs to the lawyer before the interview. Exceptions included showing the lawyer the knife the client allegedly carried (Case 8) and photographs of a repaired door that the client allegedly damaged (Case 13). As in other studies, the police typically informed lawyers that such evidence existed and whether or not it would be presented to the client during the interview (Blackstock et al., 2014). Likewise, lawyers rarely asked to see the evidence, although they did ask about the details and quality of evidence. In one instance, the detective openly admitted that the evidence was a "crap package" and through questioning, the lawyer established that the CCTV footage of the affray between the client (who was arrested at the scene) and alleged victim did not capture the full incident (Case 14). The police's openness regarding the lack of

evidence is surprising but such frank disclosure has been attributed to good working relationships between the police and lawyers in past research (Blackstock et al., 2014).

Notably, withholding the actual evidence from the lawyer may also have been part of an evidence disclosure tactic. When one lawyer was not shown the witness statements before the interview, it was unclear whether the witnesses only heard or also saw the client damage the property—this key detail determined how incriminating the witness statements were (Case 13). Given that lawyers rarely see the CCTV footage or witness statements before the interview, the police may easily withhold specific details of the evidence as some psychologists recommend (Granhag et al., 2013, 2015). In other words, the police might withhold the strength and precision of their evidence initially while the suspect answers questions, and later, gradually disclose the details of their evidence in order to catch a suspect lying.

Lack of pre-interview disclosure was not always a tactic. Sometimes, when the lawyer was unhappy with the pre-interview disclosure, it was not because the police were tactically withholding evidence, but because the investigation was still on-going and the police had not yet gathered and processed all the evidence. In one case, the lawyer highlighted to the client that the police still needed to record some witness statements and reformat the CCTV footage (Case 5). The police in this case used the first interview simply to get an initial account from the suspect; no evidence was presented during this interview. Likewise, in another case, the police confirmed that they still needed to check phone records to prove the timing, number, and content of the phone calls that the suspect allegedly made to the victim (Case 12). Thus, while psychologists recommend withholding evidence to test a suspect's account, this might not be practical; the police might simply not have much evidence to disclose or to compare with a suspect's account in the initial interview.

Evidence disclosure tactics used. In this study, three evidence disclosure tactics came to light: withholding information from the lawyer before the interview (35.3% of suspects), exaggerating the evidence to the suspect before the lawyer arrived at the police station (17.6% of suspects), and introducing new information during the interview (29.4% of suspects).

It was apparent when the police withheld evidence from the lawyer before the interview because the police either refused to answer the lawyer's questions about the evidence during the pre-interview briefing or the police released such

information during the interview. Sometimes they did both. The type of information being withheld varied widely, from whether there were screenshots of alleged phone calls from the suspect (Case 12), to whether fingerprint results would come back immediately (Case 9), to whether a key witness had made a statement (Case 3). One lawyer reported that the police often withheld information to create a sense of ambiguity in the hope of frightening a client into confessing to the crime (Case 9).

The most worrying tactic was the police exaggerating the evidence to the suspect. Giving suspects false information is dangerous—psychological studies have demonstrated that innocent suspects are at risk of making wrongful confessions when they are faced with false evidence (Kassin, Drizin, et al., 2010; Nash & Wade, 2009; Wright, Wade, & Watson, 2013). In one study, for instance, when students were informed about fake video evidence of them cheating in a gambling task, almost all of them confessed to cheating, even though none of them actually cheated (Nash & Wade, 2009). The courts have also excluded as unfair a confession made in response to the presentation of false evidence to the suspect and their solicitor (e.g., *R v. Mason*[2]*,* 1987). Yet, some police—though not necessarily the interviewing officers—may speak to the suspect informally when arresting or detaining the suspect and exaggerate the evidence they have. This is before the suspect is legally represented and afforded further protection (such as an electronic recording of the interview) against such tactics. This was an unexpected finding and caution is recommended in interpreting it given that the researcher did not observe this tactic directly. Instead, the tactic came to light when observing the private consultations between the lawyer and the client. In these consultations, three separate clients each asked their lawyers for further details of evidence that the police had informed the clients about, but not the lawyers. For instance, one suspect claimed the police had suggested they had CCTV footage of him during the incident (Case 9). This contradicted the pre-interview disclosure that the interviewing officer gave to the lawyer in which the police clarified that there was no CCTV footage evidence in this case. In another case, too, the suspect was concerned about CCTV footage that the police had told him about—the lawyer then clarified that the CCTV footage simply placed the suspect in the area and did not capture the offence (Case 11). Although

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[2] The confession in this case was excluded under section 78 of the Police and Criminal Evidence (PACE) Act 1984 as it was unfair even though it had not been obtained by oppression, nor was it likely to be unreliable, and so section 76 of PACE did not apply.

some police officers may have made the case against the suspect seem stronger and more serious, it is important to note that the interviewing officer did not claim that such evidence existed during the suspect interview or during disclosure to the lawyer. Moreover, lawyers tended to inform clients immediately that such evidence did not exist.

The final tactic involved the disclosure of new information during the interview, such as the client's belongings being found near stolen vehicles (Case 9) or earlier victim allegations of assaults (Case 3). One lawyer suggested that the police did this to surprise or pressure clients into speaking when they were exercising their right to silence (Case 9). In some cases, only minor details, such as the suspect allegedly insulting the victim, were revealed during the interview and it was unclear whether this was done tactically or such details were simply not important enough to include in the pre-interview briefing with the lawyer (Case 16).

Based on the lawyers' comments, it seemed that all three evidence disclosure tactics aimed to pressure the suspect into speaking or making an admission of guilt. In this study, around half the suspects (52.9%) remained silent or responded with 'no comment' during the interview. Meanwhile, 35.3% of suspects answered all the police's questions, either to deny committing the crime (23.5%) or to make a full admission (11.8%). The remaining 11.8% of suspects answered only some of the police's questions and on the advice of their lawyer, invoked their right to silence for other police questions. While it is beyond the scope of this study to evaluate whether the police's evidence disclosure tactics were effective in making the suspect speak during the interview, it is important to note that the police employed one or more of the three aforementioned evidence disclosure tactics with 41.2% of suspects in this study.

Lack of disclosure caused tension between lawyers and police. In line with past research findings (Kemp, 2010, 2013; Skinns, 2009), lawyers argued with the police over the limited pre-interview disclosure in two cases (Cases 3 and 5). For instance, when a detective refused to disclose whether the victim had made a statement, the lawyer refused to provide the client's details on tape during the interview, insisting that the detective could check the custody record (Case 3). In another case, the lawyer, unhappy with the pre-interview disclosure document, argued with the police regarding their knowledge of the case law on pre-interview disclosure (Case 5). Eventually, one of the officers ended the argument by agreeing

to provide further information about the suspect's alleged obstruction. Thus, the lawyers and police in this study occasionally disagreed on the level of pre-interview disclosure the police provided.

   Advising the client during consultation. When advising the client, most lawyers (94.1%) presented the client with the evidence first before inviting an explanation from the client. This is a common approach when getting an account from the client (e.g., Blackstock et al., 2014). In contrast, one lawyer preferred to ask for the client's account first to test it against the evidence, and then present the client with the evidence (Case 15). In both approaches, lawyers relied on the police's evidence to elicit an account from the client.

   Lawyers advised 58.8% of suspects to make no comment during the interview for the following stated reasons: to avoid self-incrimination, since the evidence disclosed was not strong (Cases 1, 6, and 11) or the police still needed to gather further key evidence (Cases 3, 5, 9, and 14); to try and avoid prosecution (Case 2); and to avoid any new charges since the client was definitely going to prison (Case 13). Lawyers advised a few suspects (11.8%) to make no comment during interview and also wrote a prepared statement for the police setting out the suspect's denial of the offence. Lawyers advised some suspects (23.5%) to deny the offence during the interview since the suspects had a full defence. Finally, one suspect (5.9%) was advised to make a full admission to the police so that he would receive only a caution and avoid going to court. Thus, as in past research, lawyers' advice generally depended on the evidence disclosed and the client's instructions (Kemp & Hodgson, 2016).

   Notably, not all suspects followed their lawyer's recommended course of action for the police interview. Indeed, two suspects disregarded their lawyer's advice to make no comment and instead answered the police's questions during interview, despite continuing reminders from their lawyer to respond with "no comment" (Cases 1 and 15). Meanwhile, one suspect found it difficult to submit a prepared statement and remain silent during interview. So, during the interview, the suspect wrote his responses down on paper and requested that his lawyer read them to the police (Case 16). Thus, even with a lawyer present to advise them before and during the police interview, suspects may find it difficult to invoke their right to silence during police questioning. This finding is consistent with past research on suspects in police custody (McConville & Hodgson, 1993). During consultation,

suspects also expressed concerns about getting out of police custody quickly and that remaining silent during the interview would make them appear guilty (Cases 3, 4, and 16)—such concerns are standard suspect responses (Blackstock et al., 2014; McConville & Hodgson, 1993; Skinns, 2009).

Conclusions

Based on the observation of police disclosure briefings with lawyers, lawyer-client consultations, and suspect interviews in 16 criminal cases, this study offers a detailed snapshot of current police disclosure practice. Not only did the police comply with the minimum disclosure requirements set out by the revised Codes of Practice, the police were generally quite open with lawyers compared to past research in which there has been a large variation in levels of pre-interview disclosure (McConville & Hodgson, 1993; Kemp, 2013; Quinn & Jackson, 2007). Regardless of the seriousness of the offence and amount of evidence in the case, the police in this study briefed the lawyer on case matters before questioning the suspect. Perhaps it was to ensure that adverse inferences may be drawn from a suspect's silence or to elicit cooperation from the lawyer and suspect during interview. Moreover, the police typically answered lawyers' questions even if disclosure was officially provided in writing. Lawyers rarely had the opportunity, however, to see the actual evidence before the interview and while the police are under no general obligation to disclose their case file to lawyers, any documents relevant to the legality of arrest and detention must be made available to them. Subsequently, lawyers drew upon the police disclosure in advising their clients. When the police did withhold evidence or information, it tended to be a single piece of evidence or specific details of the evidence. Thus, as recent psychological research suggests, the interviewing method of strategically withholding a single piece of evidence from the suspect would fit with current police questioning practice in England and Wales (Granhag & Hartwig, 2015). On a practical note, the police did not always have any further evidence to disclose or, alternatively, to withhold strategically during the first interview.

Few empirical studies in recent years have used live observations of real police interviews, and fewer still have accessed police disclosure meetings and lawyer-client consultations. The generalizability of the findings, however, is limited by the use of a small sample of police station attendances from three police forces in England and Wales. It is possible that other police forces in the jurisdiction vary in

their evidence disclosure practices given the limited official guidance regarding disclosure. In addition, this study focused on pre-interview briefings to lawyers and relied exclusively on police station attendances by lawyers. Future research should explore cases with legally unrepresented suspects in which the police may disclose all or most of the evidence directly to the suspect during the interview.

Overall, the study is consistent with findings from recent research, including routine police disclosure to lawyers, tension arising between lawyers and police over lack of disclosure, and lawyers' reliance on the information disclosed by police when consulting with clients (Blackstock et al., 2014; Kemp, 2010, 2013; Quinn & Jackson, 2007; Skinns, 2009). This suggests that revisions to the PACE Code of Practice have had little impact in changing police practices around pre-interview disclosure. Troublingly, however, this study found that some police officers may give suspects the impression that they possess stronger, more damning evidence than they actually do. This is problematic for all suspects, but given the vulnerability of suspects in custody and the risks of false confessions, whether this occurs with legally unrepresented suspects, who will not have a lawyer to inform them of the true nature of the evidence, is worthy of further investigation.

Chapter 5:

How the Timing of Police Evidence Disclosure Impacts Custodial Legal Advice

As the fieldwork in the previous chapter highlighted, the police in England and Wales disclose their evidence at different points during the arrest and detention of a suspect. Given that lawyers rely on the evidence disclosed by police to advise their clients, this chapter examines how criminal defence lawyers advise a hypothetical client when given either pre-interview disclosure or disclosure at various points during the police interview (early, gradually, or late).

Introduction

In England and Wales, the police control the timing and amount of evidence that they disclose to a suspect and their lawyer during the interview process. By law, the police are under no obligation to disclose most of their evidence when questioning a suspect. For instance, the key legislation governing disclosure, the Criminal Procedure and Investigations Act 1996 (CPIA), offers comprehensive guidance on pre-trial disclosure by the prosecution but lacks any reference to evidence disclosure at the police station (Clough & Jackson, 2012). Likewise, the Police and Criminal Evidence (PACE) Act 1984 and Codes of Practice that govern police interviewing practices only require the police to disclose "sufficient information to enable them [the suspect and legal adviser] to understand the nature of any such offence, and why they are suspected of committing it" (Police and Criminal Evidence Act 1984, Code C, 2017, p. 36) before the interview. Even in light of adopting the new EU Directive on the right to information[3] (Council Directive, 2012 on the right to information in criminal proceedings), the police are afforded discretion with regard to the extent of their pre-interview disclosure (Cape, 2015). Thus, the police are largely free to decide when and how they present their evidence while interviewing suspects.

As a result, the police often strategically delay disclosing some evidence, such as a "golden nugget" or a "trump card", to the suspect and their lawyer until the interview (Shepherd, 2007, p. 331). Indeed, the ACPO (2014) recently released a

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[3] The Directive encompasses the right to information about procedural rights, the right to information about the accusation, and the right of access to the materials of the case.

statement stressing the importance of withholding evidence from the suspect in order to test the suspect's account. Likewise, psychology research recommends withholding evidence from suspects as it is easier to catch suspects lying when the suspect is not aware of the evidence against them (e.g., Hartwig et al., 2014). In view of these recommendations, self-reports and in-depth interviews of police investigators reveal a preference for disclosing the evidence to the suspect gradually during the interview, or late in the interview, as opposed to early in the interview (King, 2002; Smith & Bull, 2014; Walsh et al., 2016). Indeed, police investigators in England and Wales are trained to gradually present evidence when interviewing suspects (Walsh et al., 2016).

Consistent with police practice, the courts permit the police to use their discretion to determine the extent of pre-interview disclosure on a case-by-case basis. For instance, in *R v. Nottle* (2004), the court acknowledged the need for some pre-interview disclosure to allow the solicitor to advise their client properly but clarified that "the police were not obliged to disclose every piece of evidence that they had" (para. 14). In this case, the police did not reveal the misspelling on a vandalised car and the suspect once again misspelled the name 'Justin' as 'Jutin' in a handwriting test. The appeal on the ground that the police used a form of deception was dismissed and the police were given the freedom to determine the "quality and quantity of disclosure" (*R v. Nottle*, para. 14) for each case. *R v. Farrell* (2004) was another appeal against incomplete police disclosure, in which the court held that withholding evidence, such as false car number plates in this case, cannot be considered an act of trickery or deceit. The court further postulated that full disclosure would "threaten seriously to handicap legitimate police enquiries" (*R v. Farrell*, para. 22). It is apparent that the English and Welsh courts believe that limited pre-interview disclosure is sufficient for suspects and their lawyers to prepare for the interview, to the extent that the courts may even draw adverse inferences from a suspect's silence during interview, regardless of whether the police provided the lawyer with full pre-interview disclosure (see *R v. Argent*, 1997). Even the European Court of Human Rights (ECtHR) does not support pre-interview access to the case file for lawyers (*A.T. v. Luxembourg,* 2015). In essence, withholding evidence until the interview is accepted as standard practice (*R. v. W.*, 2006).

While the police, psychologists, and courts are largely in favour of withholding evidence from suspects, defence lawyers and criminal justice scholars

argue that lawyers cannot advise their clients at the police station effectively when the police fail to provide sufficient pre-interview disclosure (Sanders et al., 2010; Toney, 2001). Without knowing what evidence the police have, lawyers face great difficulty in determining whether a client should provide an account or remain silent in the interview and must often guess at the strength of the police's evidence when providing this advice (Clough & Jackson, 2012). In his guide to police station advice, Cape highlights that evidence disclosure is crucial to advising clients accurately on how to respond in the police interview (Cape, 2011). For instance, if the evidence is very weak and circumstantial, the suspect may not need to answer any police questions at this stage. Conversely, if the evidence is quite strong and the suspect can provide an alibi or innocent explanation, it may be in their best interests to offer this account to the police. If the suspect claims to be guilty, lawyers are ethically only allowed to advise the suspect to remain silent during the interview or to make a full admission—lawyers cannot assist the suspect to deceive or mislead the police (Solicitors Regulation Authority, 2016). Deciding whether the suspect should admit their guilt to the police also requires knowing the strength of the police's evidence. In this way, knowing the police's evidence is critical to deciding on an interview strategy for the client.

Thus, police station advisers are encouraged to seek further evidence disclosure from the police, for instance, by demanding that the police disclose more information or stopping the interview to consult with the client whenever new evidence is disclosed (Cape, 2011). Accordingly, past field research suggests that lawyers do tend to argue with the police for greater levels of pre-interview disclosure (Kemp, 2010, 2013; Skinns, 2009). Lawyers also try to negotiate further disclosure from the police by advising their clients to remain silent or to respond with 'no comment' to police questioning (Blackstock et al., 2014; Quinn & Jackson, 2007). Essentially, lawyers make it clear that if the police control the flow of information and limit disclosure, then the lawyers will similarly restrict how much information their client provides to the police. However, as mentioned before, advising silence may be problematic because the court may still draw adverse inferences from a suspect's silence despite a lack of full, pre-interview disclosure (Azzopardi, 2002; Jackson, 2001). Ultimately, there is consensus amongst lawyers that when the police limit evidence disclosure before the interview, they limit the advice that lawyers can provide to their clients (Blackstock et al., 2014). Of course, the police and defence

represent two different ideologies and accordingly hold different objectives. On one hand, the police are investigating an offence and in arresting and detaining the suspect, they are not questioning the suspect in a neutral manner but as a suspected offender. This motivates delaying evidence disclosure to the suspect and lawyer. On the other hand, the defence must represent the interests of the suspect, including their due process and fair trial rights. This requires delivering considered legal advice to the client, which in turn requires earlier police evidence disclosure. Knowing the police's evidence early in the interview process also helps the suspect to avoid being caught out in a lie.

Approaching this issue from the disciplines both of law and psychology, I sought to gather new data on lawyer responses to disclosure at different points in the detention and questioning of suspects. Thus, I set out systematically to examine how the timing of police evidence disclosure impacts custodial legal advice. To this end, I recruited 100 lawyers from England and Wales to participate in an online study. The study presented lawyers with hypothetical police station scenarios in which the police disclosed all of their evidence before the interview began (as lawyers prefer), early in the interview (before asking the suspect for an account), gradually during the interview ('drip-feeding' the evidence while questioning the suspect), or late in the interview (after questioning the suspect thoroughly). I selected early, gradual, and late disclosure during the interview because past researchers have categorized police disclosure strategies during the interview in this way (e.g., Walsh & Bull, 2015; Walsh et al., 2016). Additionally, I manipulated the scenarios to include either a client who claimed to be innocent or one who claimed to be guilty of the suspected offence, as this is a further factor likely to influence lawyers' advice to the client. Participating lawyers reported how they would advise their clients both before and during the police interview in the hypothetical scenarios. Based on past research, I expected that lawyers who were given pre-interview disclosure would be better equipped to deliver legal advice to their clients than lawyers who were only given disclosure during the interview.

Method

Subjects and Design

I identified over 2000 law firms specializing in criminal defence via the official website of the Law Society in England and Wales, an independent professional body for solicitors. As this was an exploratory study, I aimed to recruit

as many lawyers as possible by contacting all the law firms listed on the Law Society's official website. I sent emails containing the link to the online study and a brief description of the project to approximately 2156 law firms listed by the Law Society, in addition to the president of a local Law Society. Over a period of seven weeks, 100 lawyers working in criminal defence across England and Wales participated in the study.

The final sample consisted of 79 solicitors, 17 accredited police station representatives, 2 trainee solicitors, 1 chartered legal executive advocate, and 1 respondent who chose not to provide their status. The number of years subjects spent in criminal defence ranged from 2 to 40 ($M = 17.4$ years, $SD = 10.5$). Only 89 subjects were police station accredited as some were privately funded.[4] Of the subjects who were accredited, the number of years they reported being accredited ranged from 1.5 to 38[5] ($M = 14.8$ years, $SD = 9.2$). Likewise, the number of clients they advised at the police station per month varied greatly from 0.2, with one subject reporting only a few clients a year, to 40 clients per month ($M = 10.8$ clients, $SD = 8.5$). Only one subject reported that they had never represented a client at the police station.

Subjects were randomly assigned to one of eight groups produced by a 2 (suspect: innocent vs. guilty) $\times$ 4 (disclosure timing: pre-interview vs. early vs. gradual vs. late) between-subjects design. Subjects read different scenarios depending on which group they were assigned to. As there were only 12 or 13 subjects per group, inferential statistics were not appropriate. Thus, although the study was designed with an experimental approach, lawyers' responses were analysed only qualitatively.

Procedure

The study was conducted online and all of the data were collected anonymously. All subjects provided informed consent before starting the study. Subjects were initially presented with background questions regarding their job, their experience in criminal defence and police station advice work, as well as how frequently they advised clients at the police station. Next, subjects were presented

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[4] Police station accreditation is required in order to be eligible for legal aid payment for police station work.
[5] Police station accreditation was only introduced in 1994 so some lawyers might have interpreted this as 'legally qualified' to provide police station advice.

with one of eight scenarios depending on which group they were in. For all subjects, the first part of the scenario began by asking them to imagine they were representing a young male client ('Christopher'), who had been arrested on suspicion of burglary, and was being held at the police station. Depending on the subject's group, the client either claimed to be innocent or guilty and the police either revealed all three pieces of incriminating evidence they had (in the pre-interview disclosure groups) or simply stated that they had evidence that suggested the client's involvement (in the early, gradual, and late disclosure groups). At this stage, subjects had to report what they would advise their client before the police interview.

Subjects were then presented with the second part of the scenario in which they were asked to imagine being present at the client's police interview. They were informed that the client's behaviour would depend on what was agreed upon prior to the interview. In the pre-interview disclosure groups, the interview consisted of the police asking the suspect (Christopher) for his account and questioning him about the evidence that the police had already revealed prior to the interview. In the early disclosure groups, the police revealed all three pieces of evidence that they possessed immediately after the caution and then asked for the suspect's account and questioned him about the evidence that they had revealed early in the interview. In the gradual disclosure groups, the police asked for an account at the start of the interview and then asked further questions while steadily revealing one piece of evidence at a time in between the questions. After each piece of evidence was revealed, the suspect was asked to explain it. For example, the scenario stated that "The police then ask a few questions about the crime, before revealing CCTV stills of Christopher's car parked in the victim's neighbourhood around the time of the burglary. The police then ask Chris for an explanation." In the late disclosure groups, the police asked the suspect for an account and then asked all of their questions. Only at the end of the interview, did the police reveal their three pieces of evidence and ask the suspect to explain the evidence. All subjects had to state whether they would advise the client during the interview, and those who stated that they would, were asked to describe what they would advise their client.

All eight scenarios were identical except for whether the client claimed to be innocent or guilty and the manner in which the three pieces of evidence were disclosed. The three pieces of evidence were CCTV stills of the client's car parked in the victim's neighbourhood around the time of the burglary; a description of the

burglar by the victim's neighbour, which fit the client's appearance; and the client's fingerprint on the garden fence of the victim's house (presented in that order). I chose these three pieces of circumstantial evidence for several reasons. First, none of the evidence was sufficient to prove that the client had committed the burglary, which is why a police interview was crucial. Second, all three pieces of evidence could plausibly exist for both guilty and innocent suspects. Third, the police are more likely to employ various strategic evidence disclosure methods such as gradual or late disclosure during the interview when a serious crime has been committed but the evidence is not strong enough to charge the suspect immediately.

Following the scenario, subjects who were assigned a guilty client were asked how their advice during the pre-interview consultation and their strategy during the interview would differ, if at all, had the client claimed he was innocent. Similarly, subjects who were initially assigned an innocent client were asked the same question but with a client who instead claimed to be guilty.

Finally, all subjects were asked which level of disclosure they believed was fairest to their client (pre-interview, early, gradual, or late) and why. Additionally, subjects were asked how much of the evidence possessed by the police they required to advise their clients effectively. The whole study took an average of 16 minutes (SD = 15 minutes) to complete.

Results and Discussion

In this section, I first outline how I analysed the data before describing and comparing the overall characteristics of lawyers' responses to pre-interview disclosure and early, gradual, and late disclosure of evidence during the police interview in the hypothetical scenario. Next, I examine the effect of the suspect's assertion of innocence on how lawyers would advise their client. Finally, I discuss responses to the general follow-up questions on police disclosure and some limitations of this study.

Given the small sample size of this study, I chose to analyse lawyers' responses to the various hypothetical scenarios qualitatively. Moreover, given that lawyers frequently referred to the amount of police disclosure they received or the suspect's claims of being innocent or guilty in their responses, it was not possible for research assistants to blindly code the data. As a result, I analysed the data myself for insights into how lawyers might advise a client and their reasons for such advice. Although this qualitative approach might be somewhat subjective, I treated lawyers'

responses as systematically as possible by creating categories for the types of advice lawyers offered and the reasons for such advice—these categories and how I developed them are outlined in greater detail below.

To examine whether evidence disclosure and suspects' innocence affect how lawyers say they would advise their clients, I looked at four key aspects of the responses: what lawyers advised their client to do in the interview; the reasons behind those recommendations; whether or not interviews were interrupted; and the reasons why these interruptions took place. An initial read-through of the responses revealed that the two main reasons lawyers provided for their advice were the type of evidence disclosure (specifically, the lack of disclosure or the strength of the evidence when it was disclosed pre-interview) and suspects' innocence, indicating that the manipulations of the scenarios were effective. Responses could not be categorized according to what lawyers advised their client to do as some lawyers (20%) gave non-directive advice and let the client decide how to proceed in the interview. However, advising the client to make no comment, to submit a prepared statement or to answer questions, and arguing with the police officers, were common interview strategies, thus I identified the frequency of such advice across groups. The initial read-through also revealed that regardless of the police disclosure strategy during the interview (i.e. early, gradual, or late), lawyers provided similar reasons, namely the lack of pre-interview disclosure, for recommending specific strategies. As lawyers treated the three types of disclosure similarly, responses to early, gradual, and late disclosure during the interview will be discussed together. Lawyers were assigned labels according to their job and response number and are referred to according to their label throughout the results section, see Table 5.1 for label meanings.

Table 5.1

Lawyers' labels and what they represent

Job	Label
	(*x* = assigned subject number)
Solicitor	Sol*x*
Trainee solicitor	TSol*x*
Police station accredited representative	Rep*x*
Chartered legal executive advocate	Exec*x*
Unanswered	Respondent*x*

Note. *x* indicates subject number and ranges from 1–100.

Hypothetical Scenario

A preliminary analysis of the word count of responses indicated that lawyers considered the hypothetical scenario carefully. Respondents typed an average of 70.2 words (*SD* = 62.3) in response to the key question: 'What would you advise Christopher before the interview begins?'

Pre-interview disclosure.

Innocent client. Depending on whether the client could provide a plausible account, approximately half the lawyers (53.8%) in the innocent, pre-interview group advised cooperating with the police either by putting forward a prepared statement or by answering questions. In deciding this interview strategy, some lawyers (38.5%) took instructions from the client on the evidence:

> First,[6] I would find out why Christopher was in the area at the time the burglary happened and whether he had any connection to the residents of that property, given Christopher's fingerprints on the garden fence. Depending on the response from Christopher, if he did know the residents and there is an explanation as to reasons for being in the vicinity, then I would suggest that Christopher answer the officer's questions. However, if there is no reasonable explanation for his presence in the vicinity then I would have suggested a 'no comment' interview due to the potential doubt of the evidence which does not prove Christopher entered the house or actually committed the burglary. (Respondent51)

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[6] Minor grammatical changes were made to the quotes to make them more readable.

The finding that lawyers took time to ask for the client's account and compare it with the police's evidence echoes my field observations in Chapter 4.

However, not all lawyers advised cooperating with the police as 30.8% of lawyers in this group directed clients to make no comment in the interview due to the circumstantial nature of the evidence. For example, one lawyer concluded that the client need not answer questions because,

> [T]he police have not disclosed where on the fence the fingerprint was found. If the fence faced the pavement Christopher could have put his hand on it as he walked past. Although Christopher matches the description the neighbour has given, a formal ID procedure should be offered. (Rep4)

The remaining 15.4% of lawyers did not recommend an interview strategy. Regardless of whether or not lawyers advised the client to cooperate in the interview, the majority of lawyers (76.9%) explicitly referred to the nature and strength of the evidence they were given before offering their client advice that was specific to case facts. Lastly, all lawyers claimed they would not intervene in the interview unless there was more disclosure (and there was not) or if they had to remind the client to stay silent.

Guilty client. The two most common responses in the guilty, pre-interview disclosure group were advising a 'no comment' interview (53.8%) or letting the client choose whether to make an admission (30.8%). As for the reasoning behind this advice, some lawyers (53.8%) responded similarly to those in the innocent, pre-interview disclosure group by evaluating the nature and strength of the disclosed evidence. However, their advice was also influenced by the client's admission of guilt, for example:

> It would be in Christopher's best interest to make a 'no comment' interview. After admitting his involvement to me he would be unable to deny the allegation. The evidence does not put him in the victim's property. His car being in the vicinity means nothing. I would want to know whether the fingerprint was found inside or outside the fence. Also whether it was the front fence or back fence of the property. (Rep58)

This focus on the client's guilt was particularly apparent in the responses (15.4%) that disregard the disclosure of evidence: "he has two options available to him, namely, he can answer questions and admit his guilt at the earliest opportunity, therefore retaining sentencing credit. Or alternatively, he can put the police to proof

and provide a 'no comment' interview" (Rep99). Of course, legal advisers only have two options once a client has admitted their involvement in a crime. Nonetheless, pre-interview disclosure still assisted lawyers in assessing how the client should proceed: "Make no comment in interview. Disclosure given does not provide evidence linking client to the actual building. No identification procedure has been conducted to identify the person witness saw. Not in client's interest to make admission at that time" (Rep77).

The remaining 15.4% of lawyers did not specify an interview strategy in their responses. Finally, just like respondents in the innocent, pre-interview disclosure group, all lawyers claimed they would not interrupt the interview except to remind their client to remain silent.

Early, gradual, and late disclosure during police interview.

Innocent client. For innocent clients, over half the lawyers (56.8%) firmly advised the client to make no comment and a further 16.2% of lawyers recommended the same, unless the client had a complete alibi. The only reason lawyers provided for the 'no comment' interviews was lack of disclosure:

> I would advise Christopher to enter a prepared statement which reads "I have
> not been provided with details of a prima facie case against me and for that
> reason I exercise my right to silence. At such time as the police comply with
> their disclosure obligations I will review my position". (Sol53)

Thus, unlike police beliefs that legal advisers always advise suspects to make no comment due to inexperience and regardless of evidential strength (Kemp, 2013), there are legitimate reasons, such as lack of disclosure, for advising a client to make no comment. Crucially, advising 'no comment' is a tactic aimed to elicit more disclosure and is well documented in field studies of police interviews and custodial legal advice (Blackstock et al., 2014; McConville & Hodgson, 1993; McConville et al., 1994; Quinn & Jackson, 2007).

In addition to 'no comment' interviews, lawyers demonstrated other tactics for dealing with the absence of police disclosure including making "reps [representations] with custody sergeant that he [the client] should be released immediately as there are no grounds or reasons for arrest" (TSol62) and making "a protest to the police regarding lack of disclosure" (Sol65). These responses highlight the much more active and adversarial role legal advisers claim to play and support conclusions that custodial legal representation has improved since the introduction of

the accreditation scheme for police station advisers in England and Wales (Bridges & Choongh, 1998). Moreover, these tactics are in line with Cape's recommendations on how legal advisers should deal with police strategic disclosure, including pushing the officers for more information or advising 'no comment' until further disclosure is made (2011). In contrast to the majority of lawyers that advised 'no comment', 24.3% of lawyers advised submitting a prepared statement and only 2.7% of lawyers suggested that if the client had a credible account, then he (Christopher) should answer questions during the interview.

Notably, two lawyers not only advised on the lack of disclosure but also attempted to second-guess the evidence the police may have:

> If he wants to deny the matter I would then have to discuss whether he knows of the address, its occupiers, whether he has been to the address at all with friends. Then advise him about DNA, fingerprints, DNA samples. Then ask whether there is any possibility of his DNA being at the address. (Rep24)

Thus, as indicated in the literature, legal advisers who are denied disclosure resort to speculating on what type of evidence the police might have for the case in question (Clough & Jackson, 2012). This reiterates how knowing what evidence the police hold is a pre-requisite for delivering adequate custodial legal advice to a client.

Following the pre-interview consultation, over half the lawyers (64.9%) chose to interrupt the police interview once the evidence was disclosed. Lawyers reported that they would consult privately with their client and take instructions on the evidence. One lawyer underlined the tense and non-cooperative relations that arise between legal advisers and police interviewers as a result of withholding evidence:

> [these pieces of evidence] implicate him as a suspect but do not by any means represent an overwhelming case and I would say that to him. Print on fence—which side? How fresh? Etc. Car—yes, police can rely on presumption that registered owner is the driver of a car at any material time but so what—who else has use of it? However, given what has occurred and the inappropriate cat and mouse behaviour of the police I would [be] reluctant to advise him to answer questions. (Sol65)

As this response indicates, the mid-interview consultation following disclosure was often the first time lawyers asked clients for an account. Lawyers may believe that clients cannot provide a meaningful account without knowing the evidence against

them. For example, before knowing that the client's car was seen near the location of the burglary the lawyer could not question the client on who else used that car.

     Guilty client. When the client was guilty, lawyers provided quite similar advice to that provided to innocent clients, with 83.8% advising 'no comment' interviews. However, lawyers attributed this advice not only to the police's lack of disclosure but also the client's admission of guilt. Just as with the responses of lawyers with innocent clients, this advice was often tactical:

> The safest course is to advise Christopher to go 'no comment' and justify it by a short introduction at the start of the interview saying that there has not been proper disclosure therefore no comment. This might lead to further disclosure. (Sol13)

Even following an admission of guilt, lawyers actively sought police disclosure:

> No Comment. In fact I'd have kicked off with the custody Sergeant over his arrest and detention due to the lack of disclosure. I'd have made representations as to the grounds for arrest. I'd have told the client not to speak to anyone and let me deal with it. I'd have advised him that his instructions to me were confidential and he still had a right to have a case proved against him. (Sol14)

Thus, although guilty clients can only proceed in two ways with a lawyer present— to make 'no comment' or an admission of guilt in the interview—some lawyers still claimed they would invest time and effort to acquire more case information to protect their client's best interests. Clearly, even lawyers advising guilty clients need to know the strength of the evidence against the client. Aside from 'no comment' interviews, a few lawyers (10.8%) let the client decide whether to make an admission or to make no comment and others (5.4%) did not specify any interview strategy.

     Over half (56.8%) of the lawyers claimed that they would interrupt the police interview following disclosure in order to take instructions, a similar move to those advising 'innocent' suspects. At this stage a variety of responses were made. Of the lawyers who interrupted the interview, some (42.9%) reported that they would continue their current interview strategy of making no comment, because "the evidence against him [the client] is circumstantial and there is an issue of identification" (Sol85), while others (14.3%) considered the potential benefits of an early admission, such as a reduced sentence at court.

Further, two lawyers were unhappy with delayed disclosure tactics and claimed that the police were conducting "an interview by ambush" (Sol47). The following response underlines how withholding evidence may worsen working relationships, and as a consequence, cooperation between police and legal advisers; "I would demand the interview be stopped. I would criticise the police for failing to give proper disclosure in advance of the interview" (Sol55).

Although lawyers who were assigned guilty clients clarified that they would not sit through an interview in which the client lied or denied their guilt, surprisingly one lawyer did advise their client to present a false alibi following disclosure: "admit presence as his [the client's] girlfriend lives there" (Sol98).[7] While the police have reported concerns that full disclosure will only enable lawyers and their clients to concoct false accounts and avoid charges (Kemp, 2013), lawyers are not allowed, both legally and ethically, to remain in an interview when a client lies to the police (Solicitors Regulation Authority, 2016). While it is a possibility that lawyers may use police disclosure of evidence to create a false account of the evidence, we rely on lawyers being professionally ethical.

Finally, it is vital to note that although the responses across the early, gradual, and late disclosure groups were similar, two lawyers responded to gradual disclosure by choosing to interrupt the interview not once but multiple times—essentially, following each disclosure. As a result, the client would receive advice on each piece of evidence separately over the course of a long, fragmented interview.

Pre-interview vs. early, gradual, and late disclosure during police interview. As mentioned above, there were many similarities between the early, gradual, and late disclosure groups. Next I outline key differences between these three groups (early, gradual, and late disclosure, or during-interview disclosure) and pre-interview disclosure.

The most apparent difference between pre-interview disclosure and during-interview disclosure was that the legal advice offered to clients with pre-interview disclosure was considerably more detailed and tailored to case facts. Lawyers offered insight into the strength of the case and could decide how to proceed with the client's

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[7] This anomaly is troubling. It is surprising that a lawyer would act, and admit to acting, unethically in this way. The reference to a fact that was not contained in the hypothetical scenario seems unlikely, as if advanced in interview, it would quickly be shown to be false. Unfortunately, I was unable to seek further clarification as all responses were anonymous.

best interests in mind. In the remaining disclosure groups, legal advice was focused on the lack of disclosure and how to respond to such a police tactic. Often, it was only during a mid-interview consultation following disclosure that lawyers took the client's account and advised the client on the case. It is apparent that lawyers' questioning of their client is directly related to the evidence presented and to which suspects would be required to respond. Unlike the pre-interview consultation, the mid-interview consultation requires actively interrupting the police interview and therefore, the mid-interview consultation is likely to be more pressurized and urgent. Thus, lawyers and clients may not be able to take their time when discussing the evidence presented in the interview.

The second key difference between disclosure before and during interview, was that there were virtually no lawyers choosing to interrupt the interview in the pre-interview disclosure group whereas in the remaining disclosure groups, more than half (60.9%) of the lawyers claimed they would interrupt the interview to speak to their client privately. The finding that lawyers only chose to intervene when evidence was disclosed during the interview highlights how vital evidence disclosure is to custodial legal advice. After all, the purpose of disclosure is to inform the lawyer of the case facts and enable them to advise the client properly. Thus, it is likely that pre-interview disclosure leads to shorter and smoother interviews.

The third difference was that innocent clients were advised to cooperate early on, either by giving an account or participating in identification procedures in the pre-interview disclosure group, more often than in the later disclosure groups. No comment interviews were only advised in the pre-interview disclosure group if the client had no explanation for the evidence or the evidence was judged as too weak. For early, gradual, and late disclosure, no comment interviews were frequently advised to innocent clients. Even after disclosure in the interview, lawyers were reluctant to cooperate with the police due to their earlier tactics of withholding evidence.

The final difference between disclosure before and during interview is the reasons why lawyers advised guilty clients to make no comment interviews. Across disclosure groups, such legal advice was partially based on the client's admission of guilt. With pre-interview disclosure, the advice was also because lawyers judged the evidence to be weak. Conversely, in the remaining disclosure groups, the advice was due to the lack of disclosure.

Innocent vs. guilty. The main difference between the innocent and guilty groups worthy of highlighting, is that 34% of lawyers in the innocent group suggested or at least considered submitting a prepared statement to the police whereas none in the guilty group did. Lawyers representing innocent clients may simply be more willing to cooperate with the police. Alternatively, lawyers defending guilty clients may judge that if the client is to cooperate with the police and make an admission, the client may as well answer police questions rather than submit a prepared statement. In addition, the client (Christopher) was described as nervous and lawyers often suggest submitting a prepared statement because nervous suspects may find it less stressful than answering police questions (Blackstock et al., 2014).

Reverse guilt. Recall that all of the lawyers were asked how their advice would differ if their client had actually claimed to be innocent instead of guilty or vice versa. Unfortunately, lawyers in the early, gradual, and late disclosure groups tended to respond as if they had been given disclosure before the interview by referring to the incriminating evidence in deciding their interview strategy. Essentially, lawyers' hindsight prevented them from responding as if they were in the same scenario again but with a client whose guilt status had been reversed.

Nevertheless, lawyers in the pre-interview groups did consider how they would advise their clients if guilt or innocence was reversed and the evidence was released prior to the interview. Only 7.7% of lawyers assigned innocent clients and 23.1% of lawyers assigned guilty clients maintained their advice of 'no comment' regardless of the client's new guilt status—the remaining lawyers all changed their interview strategy when their client's guilt status was reversed. Most lawyers (69.2%) with innocent clients advised putting forward an account to the police if the client had an explanation while most lawyers (76.9%) given a guilty client advised making no comment or suggested it as an option. This pattern of findings fits well with the earlier responses to the hypothetical scenario. Essentially, lawyers were more cooperative when they were representing innocent clients at the police station:

> If he told me he was innocent then personally I would advise him on the
> matters disclosed that they provide strong circumstantial evidence that he was
> in the area at the time of the burglary. If he can provide an explanation for
> each piece of disclosure he should give it—it may avoid him being charged
> and mean that the police will need to make some further enquiries before

deciding how to proceed. There might be any number of reasons why he was around at the time…I have had many, many clients released without charge because they have given a full explanation at the earliest opportunity. (Sol27)

Follow-up Questions

Reasons for wanting pre-interview disclosure. Of the 90 lawyers who answered the follow-up question on which level of disclosure is fairest to the client, all selected the pre-interview disclosure option and 87 provided reasons. I read over the reasons why lawyers preferred pre-interview disclosure and determined that there were four main categories of responses: [1] Effective legal advice, [2] Informed client, [3] Efficiency, and [4] Role of police. Some responses included multiple reasons and were categorized according to the main reason provided. The categories are displayed in Figure 5.1 and will be discussed in order of frequency.
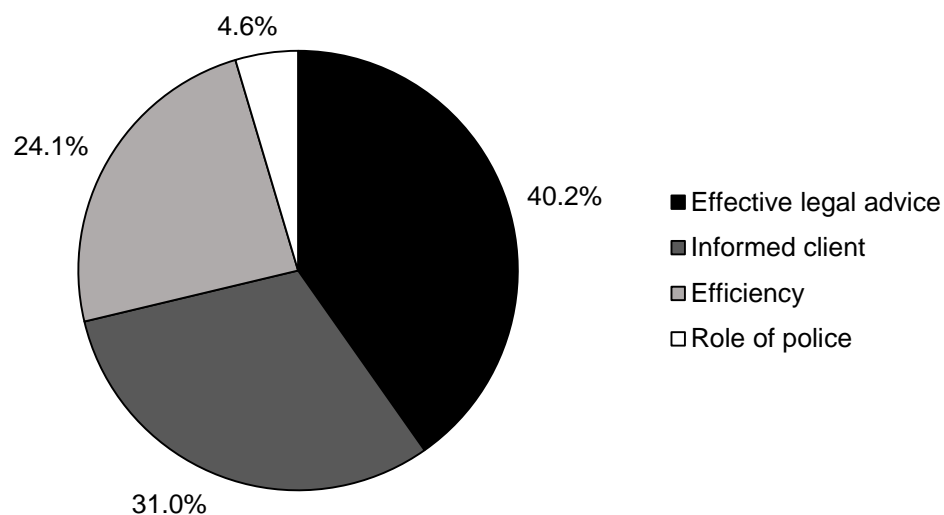
Figure 5.1. Lawyers' responses to the question of why pre-interview disclosure is fairest to the client.

More than a third of lawyers (40.2%) claimed that pre-interview disclosure was necessary to advise their client effectively on interview strategy. Deciding whether the client should answer questions or remain silent and risk adverse inferences being drawn in court is a fundamental facet of custodial legal advice (Cape, 2011). Yet, lawyers explained that without pre-interview disclosure, such decisions became problematic:

> Because without knowing what evidence there is, it is impossible to advise the client on the strength of the case against him/her or potentially whether the offence is even made out. Fuller disclosure leads to better advice and quite often, more admissions. With scant disclosure there is more justification for a no comment interview. (Sol2)

A substantial portion (31.0%) of lawyers advocated pre-interview disclosure for the sake of having an informed client. An informed client is aware of the case against them, can provide a carefully thought out response, and is less likely to be distressed in the police interview. Here are some illustrative responses:

> Clients are generally nervous in interviews, they think more clearly and are more coherent if presented with evidence before and given an opportunity to consider it and to give instructions so that they can be advised before being interviewed. (Rep40)

> Likewise it is unfair if police disclose late trying to trick a client into making up a story or prompting a lie. People admit things for many reasons—best not to know and cat and mouse is more than likely to lead to a miscarriage of justice. (Sol65)

> So he is not ambushed. So he has time to recall how the evidence came to be. So that he doesn't get flustered or nervous during the interview and accidentally say something incorrect. (Sol67)

Evidently, lawyers believe uninformed clients are at a disadvantage in the police interview as the balance of power and resources is further swayed in favour of the police. This mirrors existing arguments that the lack of pre-interview disclosure violates the principle of equality of arms, a key part of the right to a fair trial as set out in Article 6, ECHR (Jackson, 2001). In addition, lawyers were particularly concerned about innocent clients being tricked or destabilised into producing unintentional inconsistencies during the police interview. Importantly, the lawyers' desire for pre-interview disclosure was to get the most considered and accurate account from the suspect during the interview—not to concoct a false account of the evidence for the police. Providing the police with a reliable account is increasingly important as so many cases are dealt with through out of court disposals—either at the police station or based on the interview evidence gained at the police station (Cape, 2011). In line with the arguments on the client's emotional state and resulting inability to withstand the interview, one lawyer highlighted:

It is extremely difficult for a suspect to make up a defence as it goes along and therefore gradual and poor disclosure serves little purpose. Good disclosure can often present opportunities to raise non-court disposals before the interview takes place. (Sol75)

A third and pragmatic reason for favouring pre-interview disclosure was efficiency. Lawyers (24.1%) echoed past research by arguing that without pre-interview disclosure, the result would be costly, lengthy, and fragmented police interviews (Kemp, 2010):

[I]t saves time and money—I have been in numerous interviews where I have been "drip fed" disclosure and have told officers openly that we will [make] no comment until they provide what I consider to be sufficient evidence to identify a crime and evidence to identify that my client is a suspect. I can recall one in particular where if the officers had given proper disclosure at the beginning it would have saved us all a lot of time and effort. (Sol8)

Finally, 4.6% of lawyers indicated that withholding evidence is not part of the police officer's role. The following response summarises a number of arguments against withholding evidence and reveals yet another tactic legal advisers have developed to gain further information before the interview:

It often proves difficult/impossible to make an assessment of the client's position without disclosure. Police will withhold to test the veracity of the account or to "catch out" defendants which is inconsistent with their role as investigators and duties under the CPIA. Where drip fed disclosure is given it results in delay, interruption to the interview process, but rarely results in the confessions officers clearly hope will arise…Officers, just as clients, find refusing to respond to questions a challenging prospect and much can be learned through what is not said in response to carefully aimed questioning in the disclosure process. (Sol7)

Similarly, another lawyer reiterated how police strategic disclosure violates the presumption of innocence:

Police drip-feed disclosure is an archaic manner of disclosure. It is regularly used to catch out criminals lying or attempting to lie. It also drags out a case and turns a ten minute interview into a two hour interview. The interview should be a presentation of the evidence by the impartial investigating officer for the comment of the alleged criminal. As innocent until proven guilty, the

approach of staged disclosure seems to question that and places a more
adversarial role on the police. It is for the court to judge the evidence and not
the impartial investigating officer. (Sol74)

Lawyers' comments are consistently grounded in principles of procedural fairness.
Importantly, their criticisms levelled at the police highlight how police disclosure
tactics may fuel the pre-existing tension between legal advisers and police
interviewers and may contribute further to the "hostile" (Sol26) atmosphere of the
suspect interview. Likewise, previous empirical research has also demonstrated that
lack of disclosure is a point of conflict and misunderstanding between lawyers and
police officers (Kemp, 2010, 2013; Skinns, 2009).

Amount of evidence needed to advise clients effectively. For the final
follow up question on how much of the police's evidence lawyers needed in order to
advise their client effectively, I determined that there were six main categories of
responses: [1] All of the evidence, [2] Anything indicating guilt, [3] Specific pieces,
[4] As much as possible, [5] Depends on case, and [6] Not much. The categories are
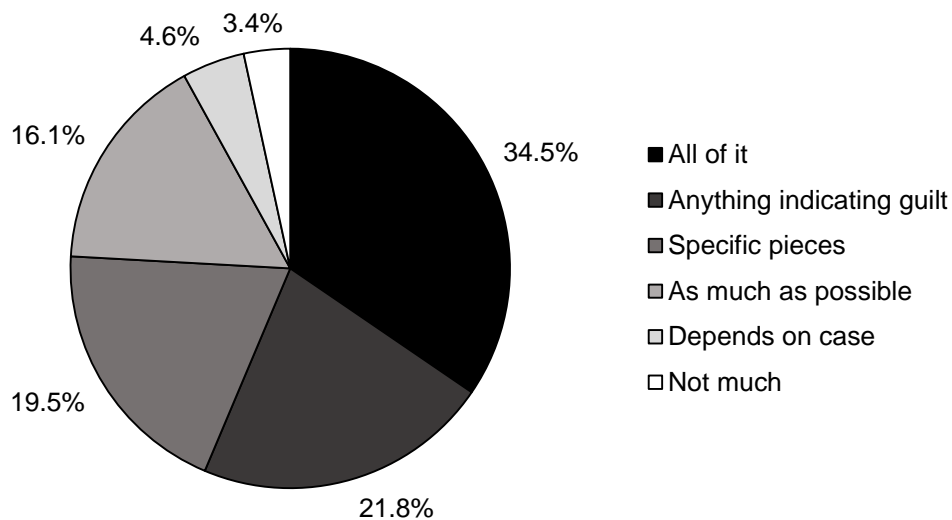shown in Figure 5.2 and these, too, will be discussed in order of frequency.

Figure 5.2. Lawyers' responses on how much of the police's evidence they need to
advise their client effectively.

As is evident from Figure 5.2, approximately a third of lawyers (34.5%)
claimed that they required all of the evidence held by the police to advise their
clients effectively but that this "never happens" (Rep91). Lawyers seemed to believe

such full and timely disclosure was beneficial to all parties involved, including the police. Thus, when asked how much evidence should be disclosed prior to the interview, this lawyer was typical in responding:

> All of it. I appreciate that in certain circumstances the police wish to test the truthfulness of the client's answers, but generally speaking, by not disclosing properly, the police will not get what they want. In this scenario Christopher is almost certainly going to be convicted and therefore if I had known the evidence prior to the interview my advice may have been very different. It is not the client's responsibility to admit the offence but if the evidence obtained is overwhelming he may as well admit it. (Sol69)

Some lawyers (21.8%) claimed that any evidence that indicated the client's guilt and that would be the subject of questions in the interview, would enable them to offer effective advice. In essence, the disclosure had to allow them to prepare for the interview. Such a response is in line with the minimum disclosure requirements set out in the aforementioned EU Directive on the right to information (Council Directive, 2012).

Others (19.5%) listed specific types of evidence that they believed was key to custodial advice, such as, "identification, CCTV, phone evidence, DNA, dates, times and places" (Sol15). Notably, these subsets of evidence may not only indicate guilt but also an alibi for the client.

A few lawyers (16.1%) were willing to settle for as much disclosure as possible from the police while a handful (4.6%) highlighted that the amount of evidence needed depended on the case. Lastly, three lawyers (3.4%) stated that it was not essential to know all the evidence the police had and that ultimately they could advise their client effectively "with whatever level of evidence the police provide" (Exec83).

Limitations

This study is chiefly limited by its sole reliance on what lawyers say they would do in response to a hypothetical scenario as opposed to what they would actually do in reality. Although lawyers were encouraged to be as honest as possible and all responses were anonymous, some respondents may still have provided idealized accounts. However, many of the findings, such as advising clients to make no comment when the police withhold evidence, are in line with past field research (Blackstock et al., 2014; Quinn & Jackson, 2007). Thus, it is unlikely that subjects'

responses in this study differ greatly from their advice at the police station. Moreover, by presenting subjects with hypothetical scenarios, I could control for all other case factors and thus identify the specific effects that the timing of evidence disclosure and the suspect's assertion of innocence have on custodial legal advice. In this way, I combined the disciplines of law and psychology to draw on a different type of data to explore the consequences of various types of disclosure.

A second limitation is with regard to the recruitment of subjects—the lawyers who were willing to take part in the study may feel more strongly about police disclosure tactics, hence their interest in this research. Thus, their views on how much pre-interview disclosure is necessary for custodial legal advice may not reflect the views of all criminal defence lawyers in England and Wales.

A final limitation is the ecological validity of the hypothetical scenarios presented to subjects. In the scenarios, all the evidence was disclosed before the interview, early in the interview, gradually during the interview, or late in the interview whereas in practice, the police may use a combination of those approaches. For instance, the police often disclose some evidence before the interview begins in order to avoid a 'no comment' interview from the suspect but that they strategically disclose the remaining evidence during the interview (Kemp, 2013). In other cases, the police strategically disclose evidence during several interviews (King, 2002). The hypothetical scenarios used in this study did not capture such possibilities. Thus this study's findings cannot generalize to lawyers' advice in response to more complex police disclosure strategies.

Conclusions

In sum, lawyers' responses to both the hypothetical scenario and follow-up questions advocate pre-interview disclosure of evidence as opposed to early, gradual, or late disclosure of evidence during the interview. As I expected, the pre-interview disclosure scenario allowed lawyers to provide more comprehensive, tailored legal advice highlighting how essential pre-interview disclosure is to ensuring the effectiveness of the right to legal assistance in practice. In contrast, early, gradual, and late disclosure of evidence during the interview led lawyers to advise tactically to elicit more disclosure, for example, by advising 'no comment' or arguing with the police. Such advice mirrors field observations in past research (Blackstock et al., 2014; Kemp, 2010, 2013; Quinn & Jackson, 2009; Skinns, 2009).

Although lawyers were more cooperative when advising an innocent client compared to when advising a guilty client, withholding evidence until the interview discouraged lawyers to advise even innocent suspects to cooperate. In addition, early, gradual, and late disclosure typically led to more interruptions from the lawyers indicating that pre-interview disclosure may be a more effective and efficient way for police to gather information from suspects. As for the amount of pre-interview disclosure needed to advise clients, lawyers varied in their responses but the most common response was to receive all of the case evidence before the police interview.

Thus, by drawing upon a large sample of English and Welsh lawyers and employing a novel psychology-law procedure, this study provides further empirical support for the view that lawyers need pre-interview disclosure from the police in order to provide informed legal advice to their clients (Cape, 2011; Sanders et al., 2010). This study's findings, along with past field research, carry important implications for how the police disclose evidence to suspects and their lawyers (Blackstock et al., 2014; Kemp, 2013). Currently, some police show a preference for strategically releasing evidence during the interview (King, 2002; Smith & Bull, 2014; Walsh et al., 2016)—an approach that the courts support (e.g., *R v. Farrell,* 2004). Yet, preventing lawyers from knowing the evidence against their client can greatly limit their ability to advise their clients before the interview and as a consequence, suspects will not benefit from case-specific legal advice. Thus, although the police in England and Wales dominate the process of disclosing evidence to suspects and their lawyers, it is vital that they consider the detrimental effects of delaying evidence disclosure for suspects.

Chapter 6:

Generating Alternative Explanations of Incriminating Evidence Probably Only Slightly Reduces People's Belief that a Suspect is Guilty

Having explored strategic disclosure of evidence from the lawyer's perspective, Chapter 6 considers strategic evidence disclosure from the police interviewer's perspective. Recall that police interviewers who strategically present evidence to a suspect are first expected to generate any alternative explanations that a suspect might provide when presented with the evidence (Granhag & Vrij, 2010). It is crucial that the interviewer exhausts these alternative explanations of the evidence early in the interview so that a deceptive suspect cannot resort to using those alternative explanations when the evidence is finally disclosed to them. An alleged benefit of strategic evidence disclosure is that when police interviewers generate these alternative evidential explanations, they become less guilt presumptive about the suspect (van der Sleen, 2009). Given the lack of evidence supporting this claim, this chapter presents three experiments and a mini meta-analysis empirically testing whether people who generate alternative explanations of the evidence change their beliefs about a suspect's guilt.

Introduction

A 2015 television documentary, *Making a Murderer*, captivated viewers worldwide by raising questions about the validity of Steven Avery's murder conviction. Though Avery was found guilty of a grisly murder, the series presented viewers with counter-explanations for what really happened, in particular, that police corruption and evidence tampering played a key role. After watching the series, more than ½ million people signed a petition to free Avery from prison—at least some of whom were persuaded that, in light of the alternative explanations for the evidence, Avery may have been wrongfully convicted. This real-world case raises an important applied question: If people generate their own alternative explanations for criminal evidence, are they less likely to judge a police suspect to be guilty? That is the question I was interested in here.

From the moment a suspect is arrested, various decision-makers within the criminal justice system tend to make judgments about the presumed guilt or

innocence of the suspect. Research shows that people typically behave in accordance with that judgment. For instance, when laypeople take on the role of an interviewer and expect a mock suspect to be guilty, they are more likely to use coercive and guilt-presumptive questions while questioning the suspect compared to interviewers who expect the suspect to be innocent (Hill, Memon, & McGeorge, 2008; Kassin et al., 2003). Moreover, mock investigators that are biased towards thinking that a research subject is guilty of cheating in an experiment are more likely to elicit false confessions from people who have not cheated (Narchet et al., 2011). Even highly trained forensic examiners and police officers may evaluate evidence, such as fingerprints and DNA samples, in line with their beliefs about a person's guilt (Charman, Kavetski, & Mueller, 2017; Dror, Charlton, & Peron, 2006; Dror & Hampikian, 2011; for a comprehensive review of the forensic confirmation bias, see Kassin, Dror, & Kuckuka, 2013). Taken together, research shows that laypeople and experts alike may presume that a suspect is guilty without careful consideration of alternative suspects and theories of what transpired during the crime.

For years, criminal justice scholars have noted that tunnel vision plagues much of the criminal justice system, from the police and prosecutors to the judge and jury (e.g., Belloni & Hodgson, 2000; Dixon, 1999; Findley & Scott, 2006). In the most tragic cases, people may wrongfully judge and convict an innocent person for a crime that they never committed. To counter such tunnel vision, researchers have suggested that criminal justice professionals should generate alternative hypotheses about how a crime might have occurred (Burke, 2007; Kerstholt & Eikelbloom, 2007; Simon, 2012). Accordingly, police interviewers are encouraged to first think of all alternative explanations that the suspect might provide for the evidence, to exhaust those explanations during the interview, and only then present their evidence to suspects in the SUE technique (Granhag & Hartwig, 2015; Hartwig et al., 2014). Proponents of the SUE technique posit that interviewers who use this method will be forced to think about the evidence from different perspectives and will, as a result, be less guilt-presumptive about the suspect than interviewers who haven't considered alternative explanations (van der Sleen, 2009).

There are good reasons to predict that thinking of alternative explanations could reduce guilt-presumptive beliefs. Research in non-forensic contexts shows that generating alternative explanations reduces people's judgmental biases (Hirt, Kardes, & Markman, 2004). In a series of social judgment studies, generating counter-

explanations for a phenomenon reduced people's biased belief in their original explanation for the phenomenon (Anderson & Sechler, 1986; Hirt & Markman, 1995; Lord, Lepper, & Preston, 1984). For instance, when subjects initially explained one hypothetical outcome for a high school football game, such as a convincing win by Team A, they judged this outcome to be more likely (i.e., explanation effect, Hirt & Markman, 1995). However, subjects who also explained alternative outcomes such as a convincing win by Team B or even a close win by Team A, did not judge the original outcome of Team A's convincing win as more likely. Presumably, when subjects were forced to consider alternative explanations, they evaluated more thoroughly the evidence for various outcomes, and their confidence in their initial, focal explanation was undermined (Hirt & Markman, 1995).

Considering alternatives can also reduce overconfidence in one's knowledge (Koriat, Lichtenstein, & Fischhoff, 1980), the tendency to estimate a numerical value close to a previously considered number (i.e., the anchoring effect, Mussweiler, Strack, Pfieffer, 2000), and the tendency to assume that an event could have been anticipated once it has already occurred (i.e., hindsight bias, Sanna, Schwarz, & Stocker, 2002). Despite researchers investigating the effect of generating alternatives in a range of domains, the underlying psychological principles are not as yet clear. What we do know is that the corrective effect of generating alternatives is enhanced when people perceive their alternatives to be plausible (Hirt & Markman, 1995). In addition, the alternatives need to be relatively easy to generate because when alternatives are difficult to generate, people might infer that there are not many alternatives or that the alternatives are less likely to be true than the original outcome or explanation (i.e., the conceptual fluency effect, Sanna & Schwarz, 2006; Sanna et al., 2002). In sum, in domains outside of the criminal justice system, thinking of alternative explanations, hypotheses, and outcomes has led people to make more balanced judgements.

Yet, research is mixed with regard to whether generating alternative explanations for a criminal case reduces people's belief in the prime suspect's guilt. One might expect that if people generate alternative explanations for incriminating evidence (for example, that a suspect who was seen at the crime scene was actually making postal deliveries as part of his job), they might lose confidence in the hypothesis that the suspect is guilty and be less likely to believe that the suspect

committed the crime. Based on past research, however, it is unclear whether people adjust their initial beliefs about a prime suspect's guilt or whether people's guilt beliefs persevere even in light of alternative suspects and theories of what happened. For instance, one study showed that when people were led to believe a prime suspect was guilty, asking them to think of why they might be wrong reduced their belief in the prime suspect's guilt but asking them to think of alternative suspects did not (O'Brien, 2009). In another study, criminal investigators were presented with a murder case and asked to make a judgment about the prime suspect's guilt (Ask & Granhag, 2005). Some of the investigators were furnished with a motive for the prime suspect while others were informed about the existence of another suspect who had threatened the murder victim in the past. Regardless of whether they knew about the prime suspect's motive or the existence of the alternative suspect, the investigators made similar guilt judgments about the prime suspect. When students took part in this study, however, they were less likely to judge the prime suspect to be guilty when informed about the alternative suspect (Ask & Granhag, 2005). It is possible that laypeople are more accepting of alternative explanations in a criminal case compared to criminal investigators. Overall, it is unclear whether thinking of alternative explanations for criminal evidence would impact people's beliefs about the prime suspect's guilt.

Moreover, the process of generating alternative evidential explanations as part of the SUE technique might not map onto past research on debiasing via the generation of alternative outcomes. In past studies of alternative generation, subjects constructed alternative scenarios that led to a different outcome (e.g., a different team won the game, or a different combatant won the battle or war, Hirt & Markman, 1995; Sanna et al., 2002). A key element of that task was that subjects built a scenario that plausibly explained an entirely different outcome. In contrast, police interviewers' alternative explanations of the evidence might not always imply that the suspect is innocent of the crime—it might change the exact nature of the crime scenario, but it is unclear to what extent it implies a different outcome, or more importantly, a different judgment of the suspect's guilt.

To extend our understanding of the effect of generating alternative explanations on people's judgements of guilt, I conducted three experiments in which I presented laypeople with criminal cases and evidence that seemed to incriminate a suspect. Subjects were asked to come up with their own alternative

explanations for the evidence before judging the suspect's guilt. To the best of my knowledge, no study has examined whether lay subjects who produce multiple, alternative explanations for criminal evidence are less likely to believe a suspect is guilty than subjects who do not produce any explanations. On the one hand, thinking of alternative explanations for incriminating evidence might undermine people's belief and confidence in the hypothesis that the suspect is guilty. On the other hand, people might form an initial belief about the suspect's guilt which is highly resistant to change despite the generation of alternative evidential explanations. In this chapter, I first present the findings of the three main experiments with the standard null-hypothesis significance testing approach and a simple Bayesian analysis. After that I present a mini meta-analysis of the data to obtain a more precise estimate of the effect size of generating alternative explanations (Cumming, 2014).

Experiment 1

In Experiment 1, I aimed to test to what extent people lowered their belief in a suspect's guilt when they thought of alternative explanations for incriminating evidence. To this end, laypeople read a fictional case and either generated alternative explanations for the evidence in the case or completed various control tasks before judging the suspect's guilt.

Method

Subjects. A total of 85 psychology students from the University of Warwick took part in the study, either for course credit or voluntarily (82 subjects provided their age, $M = 19$ years, $SD = 2.1$, range = 17–31; 76 women, 8 men, and 1 subject who preferred not to say). As this was an initial, exploratory study, I aimed for a minimum of 25 subjects per condition and stopped data collection at the end of the University term. No subjects were excluded.

Design. The experiment used a single factor, between-subjects design. The independent variable was the type of interview questions that subjects planned and there were three levels: control, suspect questions, and alternative questions. The primary dependent variable was subjects' belief in the suspect's guilt. Additionally, the study measured subjects' confidence in their judgments, how strong they thought the evidence was, and how difficult they found the task.

Procedure. All subjects were informed that they would first read a hypothetical crime scenario. Subjects read a 146 word fictional scenario in which a suspect (David) is arrested for stealing construction materials. The scenario included

a brief description and accompanying photos of three pieces of circumstantial evidence: [1] CCTV footage of a man in a black hoodie entering the storage room containing the stolen materials—a black hoodie was found at David's house, [2] security records showing that the password to the storage room was only entered once and correctly when the man in the black hoodie entered the storage room, and [3] CCTV footage of a man in a black hoodie getting into a white van and driving away from the building a few hours before the materials were discovered to be stolen—the white van was registered in David's ownership. Circumstantial evidence was used so that subjects could think of multiple, alternative explanations for all three pieces of evidence. For instance, someone might have borrowed David's white van to steal the construction materials.

Next, subjects were randomly assigned to one of the three question type conditions. In the control condition, subjects completed an unrelated filler task—producing 15 interview questions for their favourite celebrity ($n = 28$). In the suspect questions condition, subjects were asked to imagine that they were the detective in charge of the case and that they would be interviewing David to gather as much information as possible ($n = 26$). Subjects were told to produce five questions for each piece of evidence. To guide subjects, I presented them with example questions for another piece of evidence (David's fingerprints found on a box of stolen materials), such as: 'Have you seen this box before? Have you touched this box before? Why did you touch this box? When did you touch this box?'

In the alternative questions condition, subjects were given similar instructions about interviewing David except that they were instructed to produce interview questions about alternative explanations that David might give them ($n = 31$). Hereafter I refer to these interview questions as 'alternative questions'. Subjects were asked to think of "interview questions about alternative explanations", similar to the interview questions that law enforcement officers might create when using the SUE technique, so that the procedure would better mirror police interview preparation in practice. Accordingly, subjects were guided with sample alternative questions (once again, with regard to David's fingerprints), such as: 'Did anyone force you to touch this box? Did you touch this box accidentally? Did you touch this box for work purposes? Did someone ask you to touch this box?' All subjects produced 15 interview questions in total.

Finally, subjects used 7-point scales to indicate to what extent they believed David was guilty of stealing the materials (1 = *not at all*; 7 = *very much*), how confident they were in this guilt rating (1 = *not at all*; 7 = *very confident*), how strong they thought the evidence against David was (1 = *not strong at all*; 7 = *very strong*), and how difficult they found their task (1 = *not difficult at all*; 7 = *very difficult*).

Results and Discussion

Preliminary analysis. Most subjects (96%) in the suspect questions condition spontaneously produced a few alternative questions, therefore I checked that subjects in the alternative condition produced more alternative questions than those in the suspect condition. I defined 'alternative questions' as questions that a) considered why the suspect (David) might be innocent, or b) referred to other potential suspects (O'Brien, 2009). To be conservative, open-ended questions, such as 'Where were you at time X?' were not classified as alternative questions. Two thoroughly-trained independent raters, blind to condition and the hypotheses, separately coded all subjects' responses from the suspect questions and alternative questions conditions. The raters decided whether or not each question a subject generated was an alternative question. There was substantial agreement between the two raters, κ = .61 [95% CI: 0.55, 0.66], $p < .001$ (Landis & Koch, 1977) and disagreements were resolved via discussion. Subjects in the alternative questions condition generated more alternative questions than did subjects in the suspect questions condition, $M_{alt} = 8.23$, $SD_{alt} = 3.99$ vs. $M_{sus} = 3.46$, $SD_{sus} = 1.68$, $t(41.77) = -6.04$, $d = 1.56$ [95% CI: 0.95, 2.17], $p < .001$. This analysis indicated that the experimental manipulation was effective.

Main analysis. Figure 6.1 displays mean ratings of suspect guilt, confidence, and evidence strength. The results revealed that generating alternative explanations had no significant effect on subjects' guilt ratings. Moreover, subjects reported similar levels of confidence in their decisions and made similar judgments of evidence strength, regardless of question type. Across conditions, subjects made mid-level ratings of the suspect's guilt, their confidence, and the strength of evidence. A 3 × 3 MANOVA indicated that ratings of all three measures did not differ between conditions, Pillai's trace = .109, $F(6, 162) = 1.55$, $p = .165$, $\eta_p^2 = .054$.
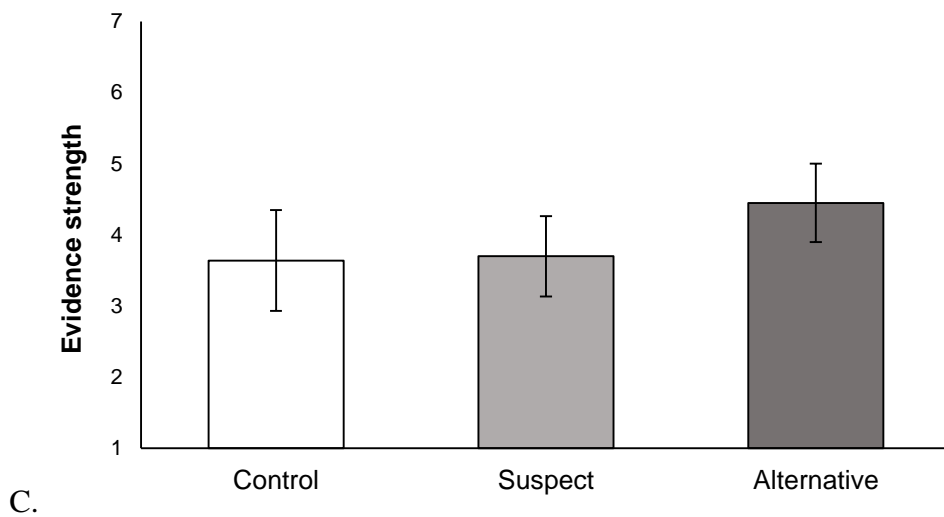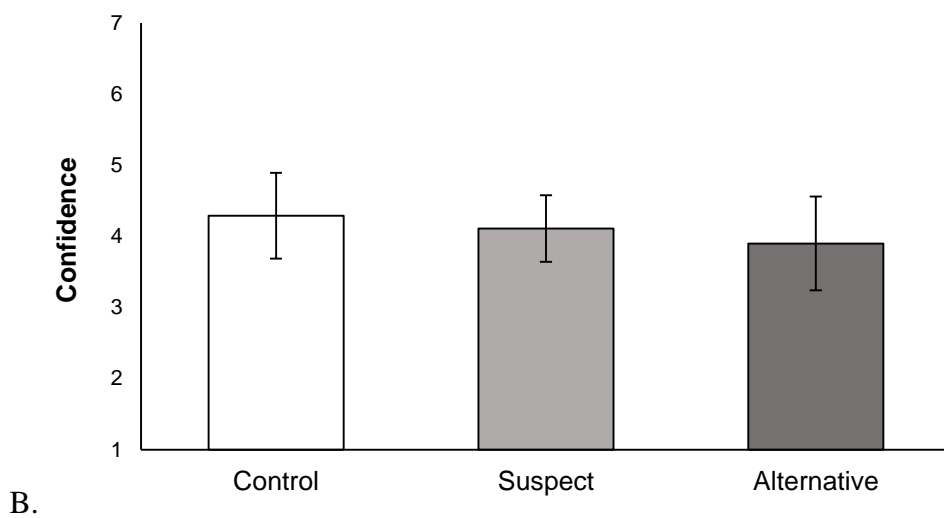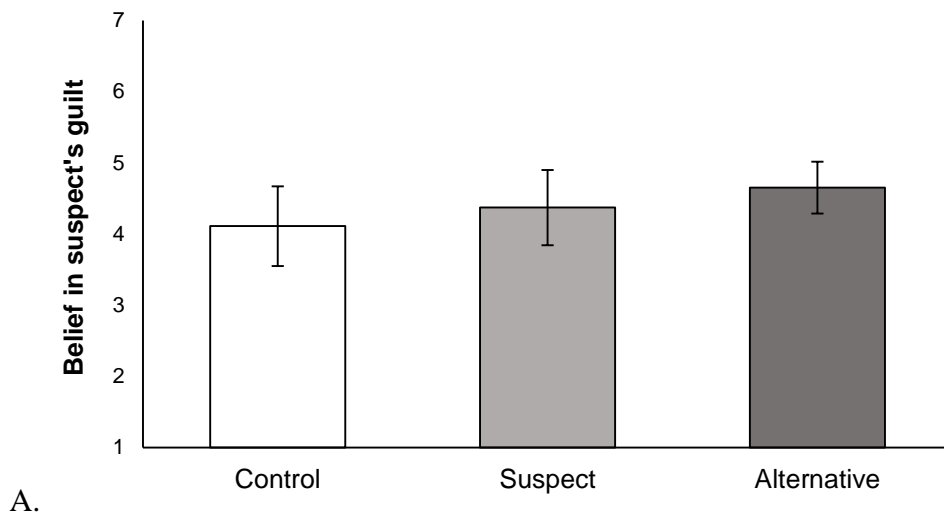
Figure 6.1. Subjects' mean ratings of (A) their belief in the suspect's guilt, (B) their confidence, and (C) evidence strength by question type in Experiment 1. Error bars represent 95% confidence intervals.

Recall that subjects also rated the difficulty of the task. Figure 6.2 displays subjects' difficulty ratings across conditions. Control subjects found their task easiest, while subjects in the suspect questions and alternative questions conditions found their task relatively more difficult. A one-way ANOVA on subjects' ratings of difficulty revealed a significant difference between question type conditions, $F(2, 82) = 8.37$, $p < .001$, $\eta_p^2 = .169$. Post-hoc Tukey tests indicated that subjects in the suspect questions condition found the task more difficult than did control subjects, $M_{diff} = 1.14$ [95% CI: 0.13, 2.15], $p = .023$, and subjects in the alternative questions condition found the task more difficult than did control subjects, $M_{diff} = 1.63$ [95% CI: 0.66, 2.60], $p < .001$. There was no difference in the difficulty ratings made by subjects in the suspect questions and alternative questions conditions, $p = .466$.
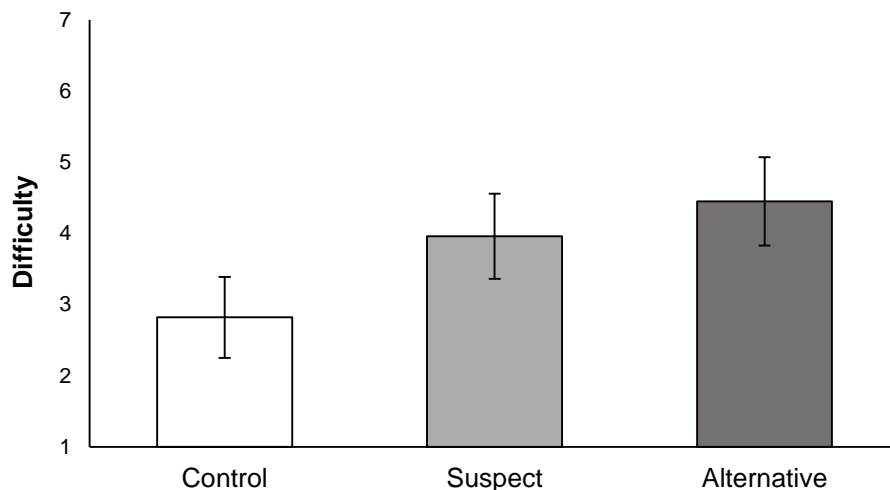
Figure 6.2. Subjects' mean difficulty ratings in Experiment 1. Error bars represent 95% confidence intervals.

In sum, thinking of alternative explanations did not seem to sway subjects' judgments about the suspect's guilt and the strength of the case. There were, however, two potentially important limitations in the experiment that could have influenced the results. First, the instruction to think of 'alternative explanations' for the evidence may have been ambiguous. For instance, consider the alternative explanation that the suspect was forced to steal the construction materials—in this scenario, he would still be guilty of the crime. Second, I did not measure whether subjects found their alternative explanations to be plausible. Perhaps people are capable of generating alternative evidential explanations but they deem them

implausible, thus disregarding them when judging a suspect's guilt. Therefore, in Experiment 2, I amended the procedure to address these concerns. Using three new, different criminal cases (to ensure that the findings were not fixed to a single mock case), subjects were instructed to think of explanations of the evidence that specifically suggested that the suspect was innocent. At the end of the study, alternative questions subjects were asked to judge the plausibility of their alternative explanations of the evidence. In addition, all subjects were probed for suspicion about the true purpose of the study.

Experiment 2

Method

Subjects. I conducted a power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007), assuming a large effect size, $f = 0.4$, based on past research and an α error rate of 0.01 for 3 groups with 3 repeated measures and found that a sample size of 93 subjects would be sufficient for a power of 0.95 ($d = 0.99$, Ask & Granhag, 2005). Thus, I aimed to recruit a minimum of 31 subjects per condition. In total, 154 people voluntarily took part in this study online. No financial compensation was provided. Prior to any analyses, I excluded 6 of these subjects—3 subjects who produced inappropriate or case irrelevant questions and 3 who guessed the true purpose of the study. Once two independent blind raters coded the remaining data, a further 8 subjects in the alternative questions condition were excluded for failing to produce alternative questions. Of the remaining 140 subjects, 76 were women, 56 were men, 4 identified as other, and 4 chose not to say (132 subjects reported their age, $M = 25$, $SD = 7.2$ years, range: 17–50).

Design. The study used a 3×3 mixed factorial design, with task (control vs. suspect questions vs. alternative questions) as the between-subjects factor and type of case (murder vs. arson vs. criminal damage) as the within-subjects factor. Subjects were randomly assigned to one of the three task conditions. All subjects read all three cases in a randomized order. Similar to Experiment 1, the dependent measures were ratings of guilt, confidence, evidence strength, and task difficulty. In addition, subjects in the alternative questions condition judged whether or not each of their alternative explanations of the evidence were plausible.

Procedure. Subjects were recruited through social media to participate in an online study on how well laypeople completed police tasks. I created three cases for subjects to read: [1] A 72 word murder case in which CCTV footage showed a man

with an eagle tattoo leaving the victim's apartment on the day of the murder—the suspect had a matching eagle tattoo, [2] A 67 word arson case in which a distinctive footprint found at the crime scene matched the suspect's shoes, and [3] An 81 word criminal damage case in which the suspect's fingerprints were found on the broken windows of the school and the suspect's shoes had paint that may match the paint poured in the school classrooms. The cases included a photo of the murder victim's apartment building, the footprint, and the fingerprint respectively.

In the control condition, subjects read each case and then completed a filler task that involved listing ten cities in a continent ($n = 47$). In the suspect questions condition, subjects read each case and were instructed to produce five interview questions to ask the suspect ($n = 53$). In the alternative questions condition, subjects read each case and were instructed to produce five interview questions that considered explanations of the evidence that suggested the suspect was *innocent* ($n = 40$). In the suspect questions and alternative questions conditions, subjects were guided by unrelated, example interview questions.

After reading each case and completing the accompanying task, subjects filled in a case report by selecting which crime had been committed and rating their belief in the suspect's guilt, their confidence, the strength of the evidence, and task difficulty on the same scales that were used in Experiment 1. Once the final (third) case report was completed, subjects in the alternative questions condition were presented with the 15 interview questions they had produced for the three suspects. For each question, subjects made a forced choice response as to whether the question referred to a plausible or implausible explanation of the evidence. Finally, all subjects were asked for their age and gender, and they were asked to describe what they thought the study was about.

Results and Discussion

Preliminary analysis. To determine whether subjects in the alternative questions condition were indeed producing more alternative questions than subjects in the suspect questions condition, two independent raters, blind to condition and the study's hypotheses, separately coded all responses from the suspect and alternative questions conditions. The raters decided whether or not each question a subject generated suggested that the suspect was innocent. There was substantial agreement between the two raters, $\kappa = .63$ [95% CI: 0.59, 0.67], $p < .001$ (Landis & Koch, 1977) and all disagreements were resolved via discussion. It was at this stage that I

excluded eight subjects from the alternative questions condition for failing to follow instructions and not producing any alternative questions for one or more of the cases.[8] Thus, the final sample size was 140 subjects. For all three cases, the remaining subjects in the alternative questions condition generated significantly more alternative questions than those in the suspect questions condition, which suggests the experimental manipulation was effective, see Table 6.1.

Table 6.1

Comparing alternative questions produced in the suspect and alternative conditions

Case	Mean number of alternative questions (SD)		t	Effect size Cohen's d [95% CIs]
	Suspect condition	Alternative condition		
Murder	1.09 (0.82)	3.28 (1.18)	$t(65.9) = -10.05*$	2.16 [1.64, 2.68]
Arson	0.96 (0.81)	3.68 (1.16)	$t(66.0) = -12.63*$	2.72 [2.15, 3.29]
Criminal damage	0.83 (0.85)	3.45 (1.52)	$t(57.2) = -9.82*$	2.13 [1.61, 2.65]

Note. * $p < .001$.

Main analysis.

Comparing conditions. As Figure 6.3 shows, subjects made similar judgments of guilt, confidence, and evidence strength across conditions. As in Experiment 1, generating alternative explanations did not lead subjects to lower their belief in the suspect's guilt. Furthermore, generating alternative explanations did not cause subjects to be less confident in their guilt judgments nor did it lead subjects to perceive the evidence to be weaker. For each case, I ran a MANOVA for subjects' ratings of guilt, confidence, and evidence strength. Between conditions, subjects did not differ on any measure for the murder (Pillai's trace = .035, $F(6, 272) = .80$, $p = .570$, $\eta_p^2 = .017$), arson (Pillai's trace = .004, $F(6, 272) = .09$, $p = .998$, $\eta_p^2 = .002$), or criminal damage case (Pillai's trace = .038, $F(6, 272) = .89$, $p = .506$, $\eta_p^2 = .019$).

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[8] Including these subjects in the analyses did not change the pattern of results. See analyses presented in Appendix A.
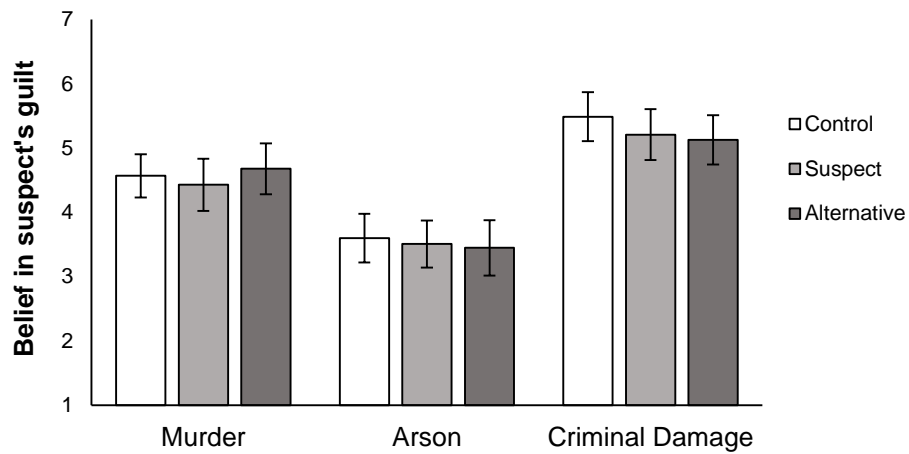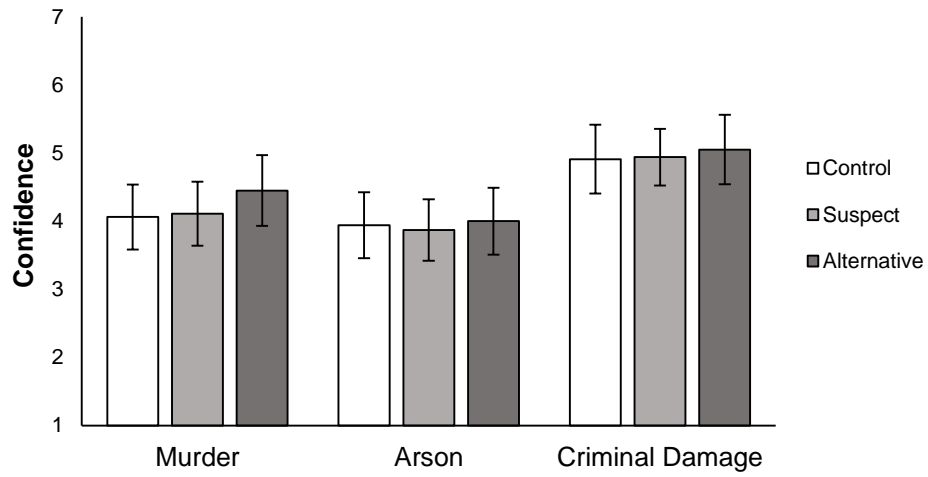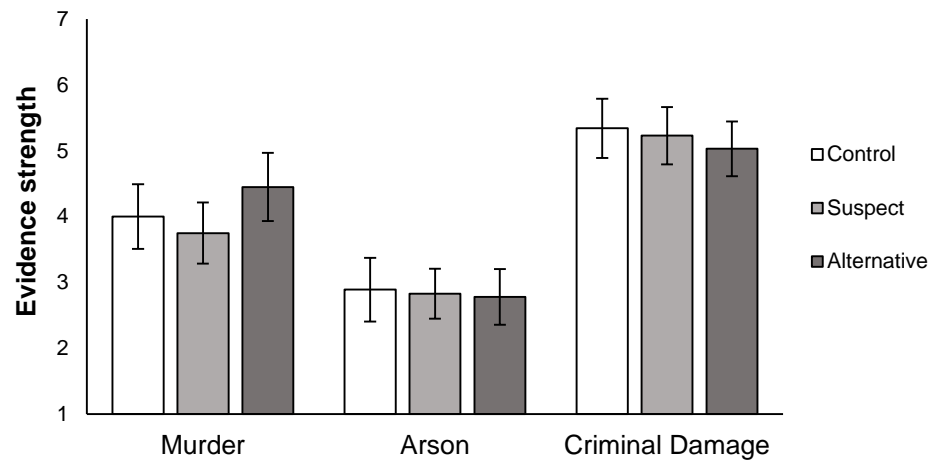
Figure 6.3. Subjects' mean ratings of (A) their belief in the suspect's guilt, (B) their confidence, and (C) evidence strength in Experiment 2. Error bars represent 95% confidence intervals.

Comparing cases. Subjects' ratings across the three cases were compared to examine whether the case facts, unlike subjects' alternative explanations, had any influence on subjects' judgments about the suspect. Overall, subjects judged the criminal damage case to have the most compelling evidence against the suspect, followed by the murder case, and then the arson case which subjects found to be the weakest case. This suggests that subjects were reading and understanding the case facts. For instance, people might have concluded that the criminal damage suspect was more likely to be guilty given that he had a prior criminal history and his fingerprints matched those found at the crime scene. In contrast, people might have considered a shoe print match, like in the arson case, relatively weak evidence and concluded that the arson suspect was less likely to be guilty.

This pattern is also reflected in subjects' judgments of guilt, confidence, and evidence strength as shown in Figure 6.3. Repeated-measures ANOVAs showed that subjects' ratings for all three measures differed between cases, Guilt, $F(2, 278) = 92.92$, $\eta_p^2 = .401$; Confidence, $F(2, 278) = 30.61$, $\eta_p^2 = .180$; Evidence strength, $F(2, 278) = 110.69$, $\eta_p^2 = .443$, all ps $< .001$. Pairwise comparisons were run for all three measures with the Bonferroni corrected critical p-value of .017. Guilt ratings for all three cases were significantly different from each other, $M_{mur} = 4.55$, $SD_{mur} = 1.29$; $M_{arso} = 3.52$, $SD_{arso} = 1.32$; $M_{crim} = 5.28$, $SD_{crim} = 1.33$, ps $< .001$. Confidence ratings for the criminal damage case, $M = 4.96$, $SD = 1.59$, were significantly higher than confidence ratings for both the arson case, $M = 3.93$, $SD = 1.61$, and murder case, $M = 4.19$, $SD = 1.65$, ps $< .001$, but there was no significant difference in confidence ratings between the arson and murder cases, $p = .045$. Evidence strength ratings were significantly different from each other for all three cases, $M_{mur} = 4.02$, $SD_{mur} = 1.67$; $M_{arso} = 2.84$; $SD_{arso} = 1.45$; $M_{crim} = 5.21$, $SD_{crim} = 1.48$, ps $< .001$. There were no interaction effects between condition and case for guilt, confidence, and evidence strength, ps $= .659$, .893, and .289 respectively.

Difficulty ratings. Given that alternative explanations are more likely to influence people's beliefs when they are relatively easy to generate, I examined subjects' difficulty ratings across conditions and cases (Sanna & Schwarz, 2006; Sanna et al., 2002). Figure 6.4 displays subjects' ratings of task difficulty. For the murder and criminal damage cases, subjects found the control task easiest, followed by the suspect questions and alternative questions tasks in order of increasing difficulty. For the arson case, subjects also found the control task easiest, however

they found the suspect questions and alternative questions tasks to be similarly difficult. Case type and condition had an interactive effect on subjects' perceptions of task difficulty, $F(4, 274) = 6.86$, $p < .001$, $\eta_p^2 = .091$. Between-subject ANOVAs showed that for all three cases, subjects' ratings of difficulty differed between conditions, $ps < .001$. Post-hoc Tukey tests showed similar patterns for the murder and criminal damage cases. Subjects found the control task easier than the suspect questions task, $M_{diff} = 1.18$ [95% CI: 0.53, 1.83]; $M_{diff} = 1.31$ [95% CI: 0.66, 1.97] respectively, $ps < .001$. Subjects also found the control task easier than the alternative questions tasks, $M_{diff} = 2.42$ [95% CI: 1.73, 3.11]; $M_{diff} = 2.17$ [95% CI: 1.46, 2.87] respectively, $ps < .001$. Finally, subjects found the suspect questions task easier than the alternative questions task, $M_{diff} = 1.24$ [95% CI: 0.56, 1.92], $p < .001$; $M_{diff} = 0.85$ [95% CI: 0.17, 1.54], $p = .010$ respectively. For the arson case, subjects found the control task easier than the suspect and alternative questions tasks, $M_{diff} = 1.72$ [95% CI: 1.06, 2.38]; $M_{diff} = 1.50$ [95% CI: 0.79, 2.21] respectively, $ps < .001$, but found the suspect and alternative questions tasks similarly difficult, $p = .720$. Overall, subjects found generating alternative explanations of the evidence relatively difficult.
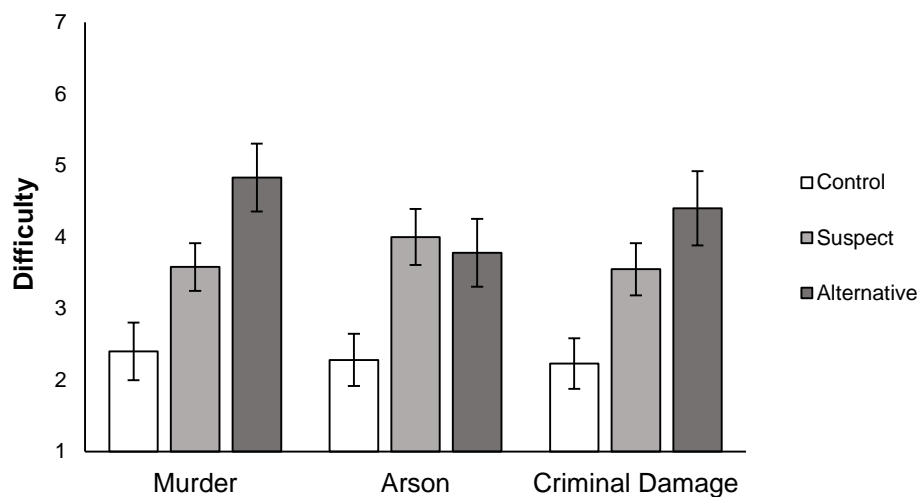

Figure 6.4. Subjects' mean difficulty ratings in Experiment 2. Error bars represent 95% confidence intervals.

Plausibility judgments. Recall that subjects in the alternative questions condition were asked to judge whether or not their self-generated alternative explanations of the evidence were plausible. Only questions that the blind raters

categorized as "alternative" were included in this analysis.[9] Thus, subjects judged a mean of 2.35 ($SD = 1.2$), 2.78 ($SD = 1.3$), and 2.35 ($SD = 1.4$) of their alternative explanations of the evidence as plausible for the murder, arson, and criminal damage cases respectively. Put another way, subjects judged 73.6%, 75.8%, and 72.9% of their alternative explanations of the evidence to be plausible for the murder, arson, and criminal damage cases respectively. This finding suggests that, when judging the suspect's guilt, subjects were not simply dismissing their alternative explanations because they seemed implausible.

To summarize, using three new criminal cases and a much larger sample, Experiment 2 replicated the basic pattern observed in Experiment 1—thinking of alternative explanations for the evidence did not appear to influence people's belief in a suspect's guilt. Indeed, this finding held across all three cases, regardless of whether people tended to believe the suspect was not guilty (arson case) or that the suspect was guilty (criminal damage case). In essence, the case facts influenced people's judgments but their own alternative explanations of the case facts did not— despite people judging most of their alternative explanations to be plausible. This contrasts with past research in which people's consideration of plausible alternative outcomes, but not implausible alternative outcomes, influenced their beliefs about the likelihood of the original outcome (Hirt & Markman, 1995).

One possible explanation for the findings is that subjects found it a difficult task generating so many alternative explanations in which the suspect is innocent, and thus inferred from this experienced difficulty that the alternative explanations, while plausible, were less likely than the suspect being guilty. Indeed, the ease or difficulty with which people generate certain thoughts often informs their judgments about the content of these thoughts, known as the *fluency effect* (e.g., Sanna et al., 2002; Tan & Agnew, 2016; Whittlesea, 1993). For instance, in one study, people who thought of 12 childhood memories, a relatively difficult task, ironically judged their memory to be worse than people who thought of only four childhood memories, a relatively easy task (Winkielman, Schwarz, & Belli, 1998). Likewise, in another study, people who thought of two alternative outcomes for a past event found their task easier than those who thought of 10 alternative outcomes, and as a

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[9] Three subjects out of the remaining 40 subjects in this condition did not complete this part of the study. Therefore, the plausibility results are for the remaining 37 subjects.

result, the two-outcome people were less likely to believe the actual event outcome was predictable (i.e., hindsight bias, Sanna et al., 2002). In other words, people can misattribute the difficulty of generating alternatives to the likelihood of those alternatives occurring, rather than to the large number of alternatives that they had to generate. Such a fluency effect could explain why subjects who thought of multiple alternative explanations judged the suspect's guilt similarly to other subjects, given that subjects found it relatively difficult to generate multiple alternative explanations for the murder and criminal damage cases.

To test this fluency account, in Experiment 3 I used a common and powerful fluency manipulation in which subjects were asked to generate either a single alternative explanation or multiple alternative explanations of the evidence. If fluency does indeed affect people's guilt judgments about a suspect, then subjects in the single alternative explanation group should find their task easier and provide lower guilt ratings than subjects in the multiple alternatives group.

Experiment 3

Method

Subjects. Once again, I conducted a power analysis using G*Power (Faul et al., 2007), assuming a large effect size, $f = 0.4$, based on past fluency research and an α error rate of 0.01 for 3 groups with 2 repeated measures and found that a sample size of 102 subjects would be sufficient for a power of 0.95 (e.g., $d = 0.77$, Experiment 2, comparing 10- vs. 2- thoughts conditions, Sanna et al., 2002). So, I aimed for a minimum of 34 subjects per condition. In total, 224 people took part in this study on Amazon Mechanical Turk and received a payment of $1 for their time. Only people who rated their English language ability as excellent or native were allowed to take part in the study. Initially, prior to the preliminary analyses, 6 subjects were excluded for guessing the true purpose of the study. After two independent raters coded the remaining responses, I excluded 34 subjects from the single alternative condition and 18 subjects from the multiple alternatives conditions for failing to produce one alternative question or multiple alternative questions respectively. Of the remaining 166 subjects, 88 were men, 77 were women, and 1 subject preferred not to say (165 subjects reported their age, $M = 36$, $SD = 10.5$ years, range: 19–63).

Design. The study used a 3×2 mixed factorial design, with task (control vs. single alternative vs. multiple alternatives) as the between-subjects factor and type of

case (murder vs. arson) as the within-subjects factor. Subjects were randomly assigned to one of the three task conditions. Once again, the dependent measures were judgments of guilt, confidence, and evidence strength.

Procedure. The procedure was similar to that of Experiment 2. Subjects read the murder and arson cases from Experiment 2 in a random order. In the control condition, subjects read each case and then completed the same filler task of listing ten cities in a continent ($n = 60$). In the single alternative condition, subjects read each case and were instructed to produce a single alternative question to ask the suspect ($n = 44$). In the multiple alternatives condition, subjects read each case and were instructed to produce six alternative questions for the suspect ($n = 62$). Again, in the latter two conditions, subjects were guided by unrelated, example alternative questions that considered how a suspect might be innocent.

For each case, subjects completed their respective task and filled in the same case report as in Experiment 2, excluding the attention check question on which crime the suspect committed. In addition, subjects were asked to rate how likely it was that the suspect committed the crime (0 = *not likely at all*; 100 = *extremely likely*). Finally, all subjects were asked for their age and gender, and to state what they thought the study was about.

Results and Discussion

Preliminary analysis. To examine whether subjects in the single alternative and multiple alternatives conditions were indeed producing single or multiple alternative questions respectively, two independent raters, blind to condition and the study's hypotheses, separately coded subjects' responses from the single alternative and multiple alternatives conditions. There was substantial agreement between the two raters, κ = .78 [95% CI: 0.75, 0.82], $p < .001$ (Landis & Koch, 1977) and disagreements were resolved via discussion. At this point 52 subjects were excluded for failing to follow instructions, that is, subjects in the multiple alternatives condition who did not produce multiple alternative questions for each suspect, and subjects in the single alternative condition who did not produce one alternative question for each suspect (these subjects typically produced an open-ended interview question for the suspect instead).[10] Following these exclusions, 166 subjects

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[10] Including these subjects did not change the main pattern of results. All main analyses with these 52 subjects are presented in Appendix A.

remained in total. These subjects were still focused on the study and seemed motivated to complete it, given that subjects in the multiple alternatives condition generated significantly more alternative questions than did subjects in the single alternative condition, murder case: $M_{mult} = 4.35$, $SD_{mult} = 1.32$ vs. $M_{sing} = 1.00$, $SD_{sing} = 0$; arson case: $M_{mult} = 4.48$, $SD_{mult} = 1.20$ vs. $M_{sing} = 1.00$, $SD_{sing} = 0$, $ps < .001$.

Next, I checked whether the fluency manipulation worked by comparing subjects' difficulty ratings across conditions and cases. In other words, did subjects find it easier to generate a single alternative explanation compared to multiple alternative explanations? Case and condition had an interactive effect on subjects' ratings of task difficulty, $F(2, 163) = 37.69$, $p < .001$, $\eta_p^2 = .316$. For the arson case, subjects' difficulty ratings differed between conditions, $F(2, 163) = 86.44$, $p < .001$, $\eta_p^2 = .515$. Post-hoc Tukey tests showed that control subjects found their task easier than did single alternative subjects, $M_{diff} = 2.66$ [95% CI: 1.96, 3.36], and multiple alternatives subjects, $M_{diff} = 3.44$ [95% CI: 2.80, 4.08], $ps < .001$. Most importantly, subjects found thinking of a single alternative question easier than thinking of multiple alternative questions, $M_{diff} = 0.78$ [95% CI: 0.08, 1.48], $p = .024$.

For the murder case, subjects' difficulty ratings also differed between conditions, $F(2, 163) = 4.13$, $p = .018$, $\eta_p^2 = .048$. Post-hoc Tukey tests showed that control subjects found their task easier than multiple alternatives subjects did, $M_{diff} = 0.89$ [95% CI: 0.15, 1.62], $p = .013$, however single alternative subjects did not find their task easier or more difficult than the control or multiple alternatives subjects did, $p = .283$ and $p = .515$ respectively.[11] So, for the murder case, subjects did not find it easier to generate a single alternative explanation than to generate multiple alternative explanations. Subjects might have found it quite difficult generating even a single alternative explanation for the murder case because they, like subjects in Experiment 2, perceived the evidence (CCTV footage) to be quite compelling. In sum, the fluency manipulation was only effective for the arson case, not the murder case.

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[11] Since type of case was a repeated-measures variable, I had to create two different filler tasks for the control group to complete—one filler task per case. For the murder case, control subjects had to name 10 cities in Asia—a task that subjects found quite difficult in comparison to naming 10 cities in North America, the control task associated with the arson case. I did not anticipate that one filler task would be more difficult than the other given that the same filler tasks were administered in Experiment 2 and subjects found the tasks similarly difficult.
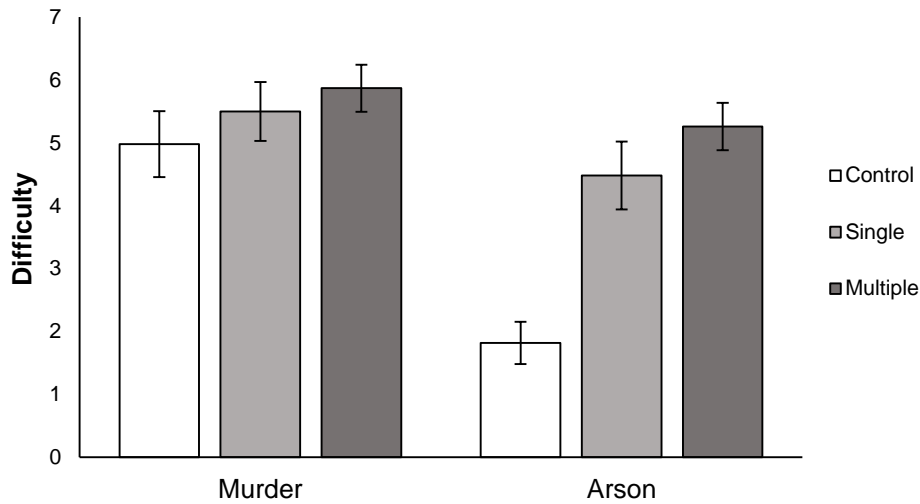
Figure 6.5. Subjects' mean difficulty ratings in Experiment 3. Error bars represent 95% confidence intervals.

Main Analysis.

Comparing conditions. Recall the prediction that subjects who generated a single alternative explanation would be less inclined to believe the suspect was guilty than subjects who generated multiple alternative explanations. Instead, for the murder case, subjects did not differ in their guilt ratings across conditions. For the arson case, subjects who generated *multiple* alternatives provided lower guilt ratings than subjects who generated a single alternative. Overall, subjects rated the likelihood of the suspect's guilt, their belief in the suspects' guilt, their confidence, and the evidential strength similarly across conditions, see Figure 6.5.

For the murder case, a MANOVA suggested that subjects' ratings of guilt likelihood, guilt belief, confidence, and evidence strength did not differ between conditions, Pillai's trace = .075, $F(8, 322) = 1.58$, $p = .130$, $\eta_p^2 = .038$. For the arson case, a MANOVA suggested that subjects' ratings differed between conditions, Pillai's trace = .099, $F(8, 322) = 2.10$, $p = .035$, $\eta_p^2 = .050$. Specifically, subjects' ratings of guilt likelihood, $F(2, 163) = 4.03$, $p = .020$, $\eta_p^2 = .047$, and guilt belief, $F(2, 163) = 4.33$, $p = .015$, $\eta_p^2 = .050$, differed between conditions, while their ratings of confidence, $p = .163$, and evidence strength, $p = .194$, did not. Post-hoc Tukey tests indicated that subjects made lower guilt likelihood ratings in the multiple alternatives condition compared to the single alternative condition, $M_{diff} = 9.74$ [95% CI: –0.07, 19.54], $p = .052$, and the control condition, $M_{diff} = 9.47$ [95% CI: 0.46, 18.48], $p = .037$, but that subjects' guilt likelihood ratings did not differ between the

single alternative and control conditions, $p = .998$. Likewise, subjects in the multiple alternatives condition made lower guilt belief ratings compared to the single alternative condition, $M_{diff} = 0.72$ [95% CI: 0.09, 1.35], $p = .020$, and the control condition, $M_{diff} = 0.54$ [95% CI: –0.03, 1.12], $p = .069$. Subjects' guilt belief ratings did not differ between the single alternative and control conditions, $p = .782$. So, in contrast to the predictions, subjects who had the relatively difficult task of generating multiple alternative explanations made slightly lower guilt ratings of the arson suspect than subjects who had the relatively easy task of generating a single alternative explanation.

A.

B.

C.

D.
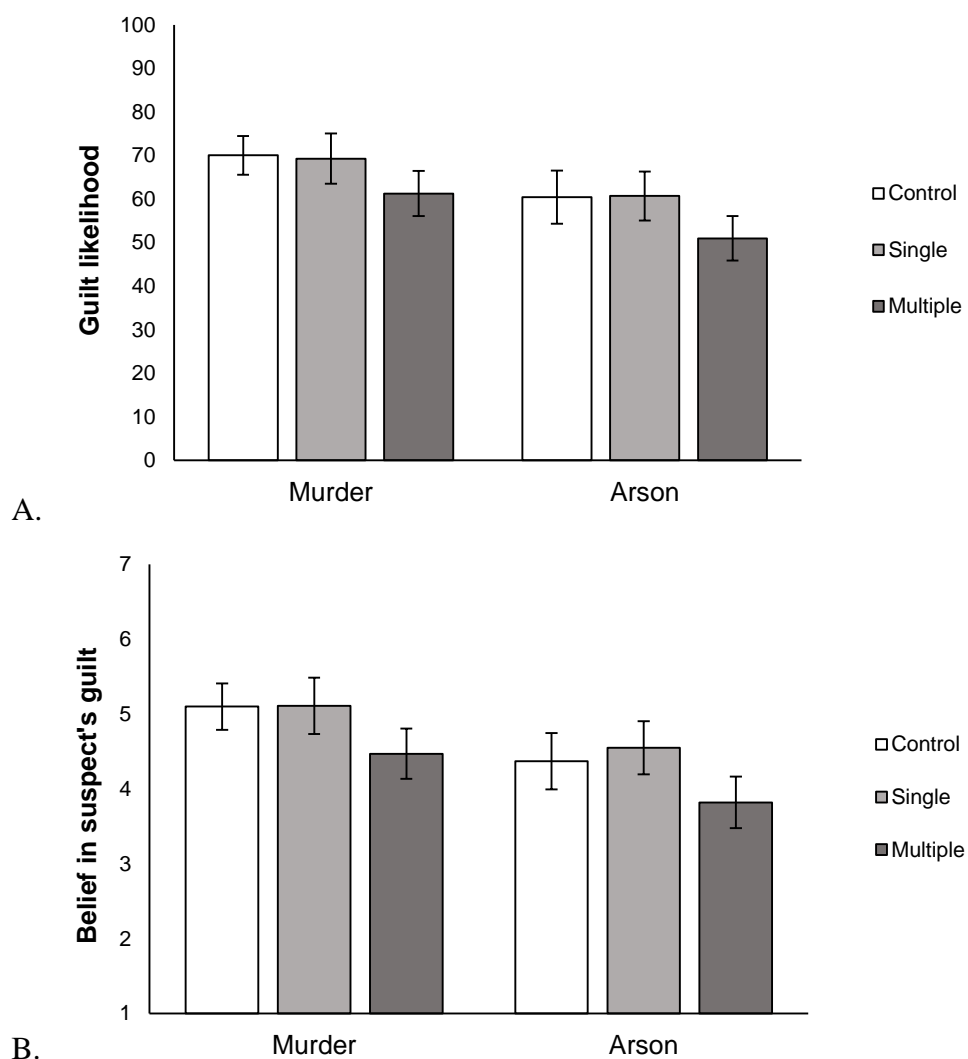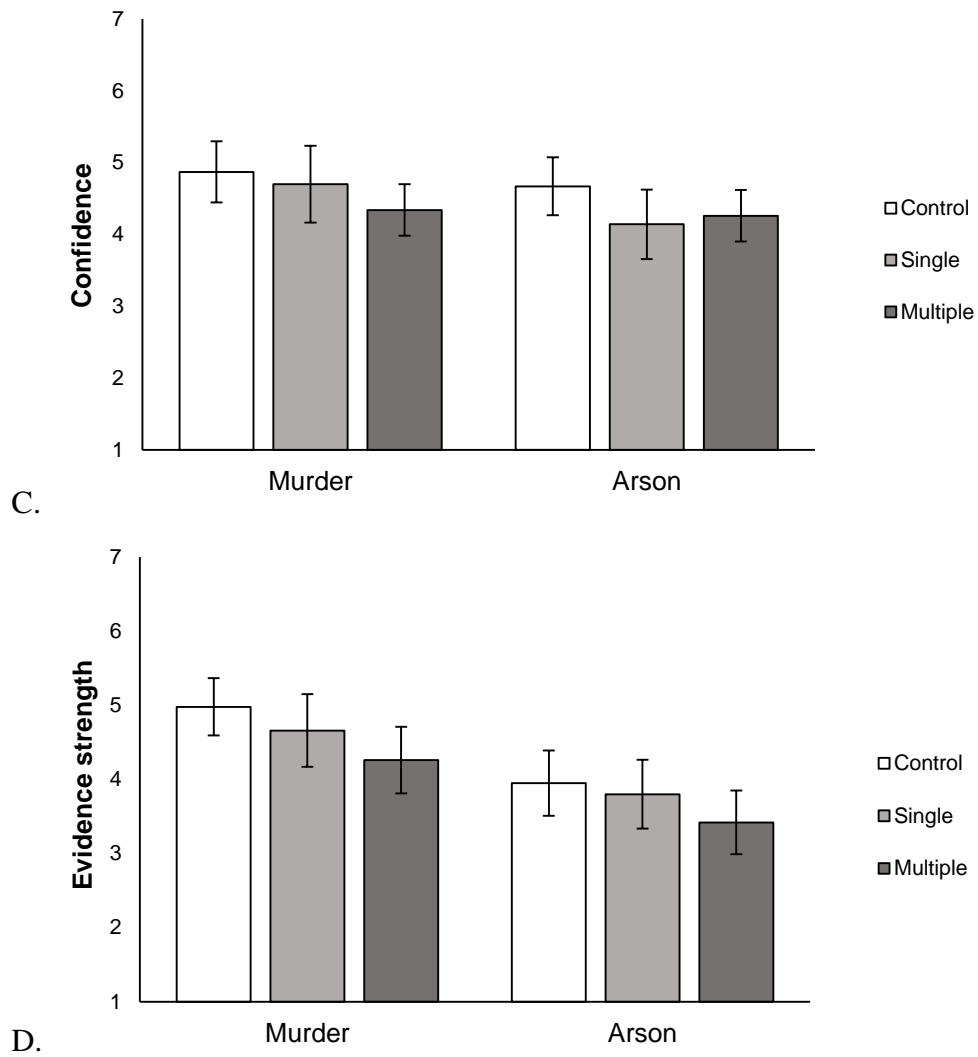
Figure 6.6. Subjects' mean ratings of (A) the likelihood that the suspect is guilty, (B) belief in suspect's guilt, (C) their confidence, and (D) evidence strength in Experiment 3. Error bars represent 95% confidence intervals.

Comparing cases. As in Experiment 2, subjects perceived the murder case to be stronger than the arson case, see Table 6.2. This finding could explain why subjects found it quite difficult to generate even a single alternative explanation for the murder case, but not for the arson case. There were no interaction effects of case and condition on subjects' guilt likelihood, guilt belief, confidence, and evidence strength ratings, $ps = .921, .842, .245,$ and $.826$ respectively.

Table 6.2

Subjects' judgments of the murder and arson cases

Measure	Means for murder case (SD)	Means for arson case (SD)	Mean difference [95% CIs]	*T*
Guilt likelihood	66.55 (19.27)	56.97 (21.42)	9.58 [6.30, 12.86]	$t(165) = -5.76$**
Belief in guilt	4.87 (1.28)	4.21 (1.37)	0.66 [0.44, 0.88]	$t(165) = -5.93$**
Confidence	4.63 (1.61)	4.37 (1.53)	0.25 [0.02, 0.48]	$t(165) = -2.17$*
Evidence strength	4.63 (1.65)	3.71 (1.66)	0.92 [1.20, 0.63]	$t(165) = -6.40$**

Note. * $p = .032$; ** $p < .001$. Using the Bonferroni correction the critical *p*-value is .0125.

Overall, in Experiment 3, people found it easier to think of a single alternative explanation for the evidence rather than multiple alternative explanations of the evidence in one case (arson) but not the other (murder). This pattern of results was surprising given that several studies have manipulated the ease of a cognitive task, such as recalling childhood memories or making future plans, by simply varying the number of items subjects needed to think of (e.g., Sanna et al., 2002; Spielmann, MacDonald, & Wilson, 2009; Tan & Agnew, 2016; Tormala, Petty, & Briñol, 2002; Winkielman et al., 1998). Since people found it easier to generate a single alternative explanation for the arson case, rather than multiple alternative explanations, one might expect single alternative subjects to be less inclined to believe the arson suspect was guilty than multiple alternatives subjects were. Instead, I found the opposite: the multiple alternatives group was less likely to believe that the arson suspect was guilty than the single alternative group. Meanwhile, for the murder case, subjects in the single- and multiple-alternative groups did not differ in their difficulty ratings or their guilt belief ratings. Therefore, I did not find support for a fluency effect in which people who think of one alternative explanation find it easier to imagine how the suspect might be innocent, and as a result, are less inclined to believe the suspect is guilty compared to people who think of multiple alternative explanations (Sanna et al., 2002; Winkielman et al., 1998).

To summarize, thinking of multiple alternative explanations appeared to influence people's guilt beliefs for a specific case within Experiment 3, but not in Experiments 1 and 2 in which subjects who thought of alternative explanations judged the suspect's guilt similarly to other subjects who did not think of alternative

explanations. To further examine these mixed findings, I re-analysed the data from all three experiments using a Bayesian approach.

Bayesian Analysis of Experiments 1–3

Bayesian statistics enable researchers to quantify how much the data favour the null hypothesis (for criticisms directed at the traditional null hypothesis significance testing approach, see for example, Krueger, 2001; Wagenmakers, 2007; Wagenmakers, Lee, Lodewyckx, & Iverson, 2008). Put another way, it allows researchers to assess how likely it is for observed data to occur when the null hypothesis is true compared to when the alternative hypothesis is true (Ecker, Lewandowsky, & Apai, 2011; Jarozs & Wiley, 2014). I calculated Bayes Factors (JASP Team, 2016) for the main measure of interest: subjects' guilt belief ratings as shown in Table 6.3. A Bayes Factor is the ratio of the probability that the data occurred under the null hypothesis to the probability that the data occurred under the alternative hypothesis (Ecker et al., 2011). Here, Bayes Factors (BF_{01}) above 1 are in favour of the null hypothesis while Bayes Factors below 1 are in favour of the alternative hypothesis. For instance, the Bayes Factor of 12.71 for the arson case in Experiment 2 suggests that the data are approximately 12.71 times more likely to occur when generating alternative evidential explanations does not influence people's beliefs about a suspect's guilt compared to when it does.

As Table 6.3 shows, the Bayes Factors for Experiment 1 and Experiment 2 suggest that coming up with alternative explanations did not lead people to change their judgments about a suspect's guilt. In contrast, Experiment 3 suggests the opposite: that thinking of alternative evidential explanations might influence people's beliefs about whether a suspect is guilty of a crime. To what extent, then, does generating alternative explanations influence people's guilt-presumptive judgments? To answer this question, I aimed to calculate a more precise estimate of the effect size by conducting a mini meta-analysis of all three studies (Cumming, 2012, 2013).

Table 6.3

Bayes factors for guilt belief measure in Experiments 1–3

Experiment	Case	BF_{01}
1	Theft	3.38
2	Murder	10.11
2	Arson	12.71
2	Criminal damage	6.48
3	Murder	0.40
3	Arson	0.22

Mini Meta-Analysis on the Effect of Generating Alternative Explanations on Guilt Judgments

For the mini meta-analysis, I was primarily interested in the size of the difference between guilt belief ratings made by the control and alternative groups (i.e., the multiple alternatives group in Experiment 3).[12] People's guilt belief ratings were averaged across cases for Experiments 2 and 3 and these group mean ratings were compared in original units. Specifically, I compared people's mean ratings for the extent to which they believed the suspect was guilty on the aforementioned scale of 1 = *Not at all* to 7 = *Very much*. Using ESCI software (Cumming, 2013), I ran a random-effects model meta-analysis, see Figure 6.7 for the resultant forest plot. The meta-analytic result showed that people who thought of multiple alternative explanations of the evidence made guilt belief ratings that differed from the control group by an estimated –0.11 units [95% CI: –0.67, 0.45] on the guilt belief scale of 1–7, $z = -0.375$, $p = .707$. Put another way, subjects who generated alternative explanations lowered their guilt belief on average by 1.79%. Thus, generating alternatives had a very small effect, or plausibly no effect, on subjects' guilt beliefs about the suspect.

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[12] The meta-analysis presented here only includes data from subjects who followed instructions in each experiment. Including subjects who did not follow instructions in Experiments 2 and 3 did not change the result of the meta-analysis, see Appendix B for further details.
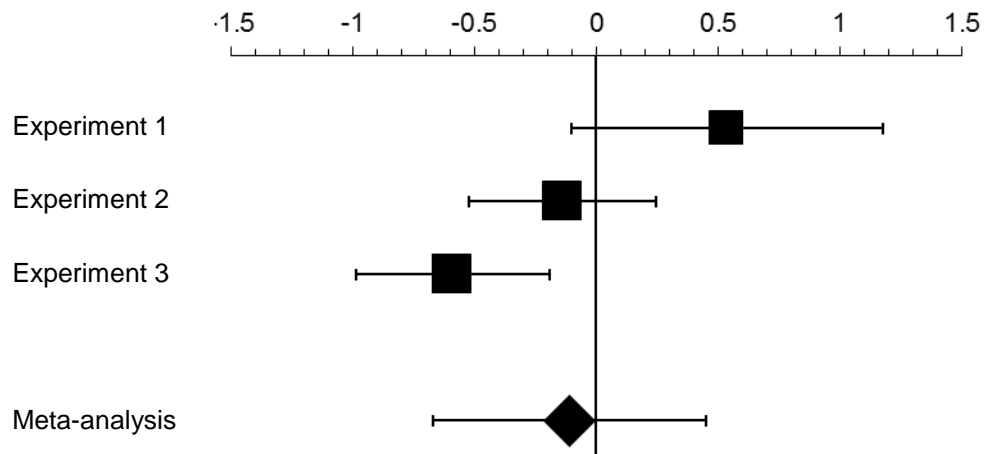
Figure 6.7. Forest plot displaying mean differences in guilt belief ratings between the control and alternative groups in Experiments 1–3. The mean difference between the two groups in each experiment is indicated by the location of the square on the horizontal axis. The size of the square indicates how the study was weighted in the meta-analysis. Studies with larger squares had a bigger sample size and a smaller standard deviation and thus, had a higher weighting in the meta-analysis. The meta-analytic result is represented by the diamond. When the symbol is to the right of the zero line, the alternative group was more likely to believe the suspect was guilty compared to the control group. When the symbol is to the left of the zero line, the alternative group was less likely to believe the suspect was guilty compared to the control group. Error bars represent 95% confidence intervals.

General Discussion

I asked the question: to what extent does thinking of alternative explanations for criminal evidence reduce people's belief in a suspect's guilt? Across three experiments and four criminal cases, I found that people were capable of generating multiple explanations of the evidence in which the prime suspect could be innocent. For instance, when the prime suspect had a tattoo that matched someone seen near the murder scene, people questioned whether the tattoo was common, a gang affiliation, or a recent acquisition by the suspect—suggesting that someone other than the suspect had been seen near the murder scene and that the suspect might, in fact, be innocent. What's more, people found most of their alternative explanations to be plausible. Yet, as highlighted by the results of the mini meta-analysis, people

who generated alternative explanations were only slightly less inclined, by about 2%, if at all, to believe the suspect was guilty compared to people who did not think of multiple, alternative explanations of the evidence.

On one hand, these findings fit with past research in which thinking or being told about alternative suspects for a crime did not always influence people's guilt judgments about the prime suspect. Both laypeople who thought of multiple, alternative suspects in a criminal case and police who were informed about an alternative suspect did not lower their belief in the prime suspect's guilt (Ask & Granhag, 2005; O'Brien, 2009). Notably, some laypeople in past research lowered their guilt ratings of the prime suspect when informed about an alternative suspect (Ask & Granhag, 2005).

On the other hand, the findings contrast with research on people's judgments in non-forensic contexts in which thinking of plausible alternative hypotheses, explanations, and outcomes forced people to evaluate the evidence more comprehensively, and ultimately reduced people's biased tendency to believe in an initial hypothesis, explanation, or outcome (e.g., Hirt & Markman, 1995; Sanna et al., 2002). So, why didn't thinking of alternative explanations of evidence influence people's judgments when it came to criminal cases? It is possible that while people generated alternative explanations of the evidence that changed the exact nature of the crime scenario, they did not construct entirely different outcomes for the criminal case the way people generated entirely different outcomes for a football game or a battle in past research (Hirt & Markman, 1995; Sanna et al., 2002). Future research could encourage people to construct entirely different outcomes for each criminal case by providing people with both incriminating and exculpatory evidence regarding the prime suspect.

Another possible explanation for the findings is that when subjects read the criminal cases, they formed an initial belief about the culpability of the suspect and the strength of the case, and this belief persevered in spite of their alternative evidential explanations. Put another way, people's self-generated alternatives were simply not compelling enough to sway their initial beliefs about the suspect's involvement in a crime. The knowledge that someone had been labelled as a suspect in the case might have outweighed subjects' other considerations about the case. Indeed, initial beliefs about a suspect and criminal evidence can be quite powerful and influence subsequent interpretations of criminal evidence made even by

professional crime analysts, whose job it is to provide the police with alternative explanations of the evidence and to counter tunnel vision (Kerstholt & Eikelbloom, 2007). Future research could compare directly the effects of alternative generation in criminal cases to alternative generation in other domains (e.g. sporting or historical events) to examine whether people are less willing or less motivated to change their beliefs about a suspect's guilt compared to their beliefs about the outcome of, say, a football game.

Relatedly, given that Experiments 1 and 2 found generating alternative evidential explanations had no effect on people's guilt beliefs and Experiment 3 and the mini meta-analysis found a small effect of alternative generation on people's guilt beliefs, the effect might be dependent on the circumstances under which people generate alternative explanations. For instance, the strength of the initial evidence in the case and whether it affords subjects the option of generating multiple plausible alternative explanations might determine the extent to which subjects shift their guilt beliefs about a suspect. While the three experiments used a variety of different cases, with evidence of varying strength, and Experiment 2 even measured subjects' self-reported plausibility, future research could actually manipulate the strength of the case evidence and consequently, the number of plausible alternative explanations a subject can generate to identify which circumstances might lead subjects to change their guilt beliefs about a suspect.

Notably, the findings are also at odds with past research in which people found it easier to think of only a few alternative event outcomes and inferred from this ease, that an event could occur in a number of ways, and thus adjusted their judgments about the inevitability of the original event outcome accordingly (i.e., hindsight bias, Sanna et al., 2002). In the present studies, people found it difficult to think of just one alternative explanation of the evidence (see Figure 6.5), so it was difficult to create a feeling of fluency by manipulating the number of alternative explanations people had to generate. If subjects are indeed relying upon the difficulty with which they generated one or more alternative explanations as a cue to the likelihood of those alternatives, then future research could eliminate this fluency effect by leading subjects to attribute their experienced difficulty to something else, such as the nature of the task. For instance, informing subjects that most past research subjects found it difficult to generate alternative explanations could prevent current subjects from drawing upon their own experienced difficulty of generating

alternatives when making guilt judgments about the suspect (e.g., Schwarz et al., 1991).

The practical implications of the findings are evident—simply telling people to think of different explanations for incriminating evidence may be insufficient in leading criminal justice professionals to make more balanced judgments about a person's guilt. Police interviewers that employ the SUE method (e.g., Hartwig et al., 2014) may think of alternative explanations of the evidence and base their interview questions on these explanations, but there is little evidence to suggest that this technique will lower their belief in the suspect's guilt. Of course, only laypeople took part in this research and they were aware that the criminal cases they were reading were hypothetical. Future research could examine to what extent professionals, such as police investigators, adjust their guilt beliefs about a suspect when thinking of alternative explanations of the evidence for real criminal cases. It might be even more difficult, however, to influence the beliefs of criminal justice professionals who have a vested interest in charging a suspect or convicting a defendant and as a result, will be reluctant to prove themselves wrong and have wasted time with the wrong person. For example, some prosecutors remain convinced that the defendants they convicted are guilty even in the face of evidence that proves the defendant's innocence (Bandes, 2005; Burke, 2007). Likewise, in the infamous Dutch Schiedam Park case, police and prosecutors ignored the possibility of alternative suspects despite evidence indicating their prime suspect's innocence— their prime suspect was wrongfully convicted before being exonerated years later (Brants, 2013). Indeed, Simon (2012) suggested that while thinking about alternatives may be effective in reducing simple cognitive biases, such as the hindsight bias, it may be less successful in forensic contexts where motivational factors contribute to people's judgments about someone's guilt. Generating alternative theories and explanations may simply not have the potential to tackle people's tunnel vision in the criminal justice system (O'Brien, 2009).

In conclusion, when laypeople generated their own alternative explanations of criminal evidence, they were only marginally less likely, or not at all less likely, to believe the suspect was guilty. Unlike the overwhelming public response regarding the potential innocence of Steven Avery from *Making a Murderer*, people's beliefs about the suspects in this research were barely affected by alternative explanations of incriminating evidence, even though they were creating those alternative

explanations themselves. Thus, it seems unlikely that police interviewers who prepare interview questions based on alternative explanations of the evidence, as per the SUE protocol, will be less guilt-presumptive about their suspect and as a result, treat the suspect fairer than if they had not employed the SUE technique.

Chapter 7:

Truth-Tellers Stand the Test of Time and Contradict Evidence Less than Liars, Even Months After a Crime

Having considered the broader implications of strategic evidence disclosure from both the lawyer's and police interviewer's perspectives in preceding chapters, Chapter 7 shifts the focus to the suspect. When deceptive suspects are unaware of the evidence the police hold against them, they contradict that evidence more than truthful suspects do—a useful cue to deception and the key motivation for strategic evidence disclosure techniques. But given that, over time, truthful suspects might forget the past and also contradict the evidence, how effective is strategic evidence disclosure in lie detection when suspects are questioned months after a crime? To test this, this chapter presents a mock crime experiment in which mock suspects either committed a theft (liars) or a benign activity (truth-tellers) and were questioned either shortly after or two months later without being informed of the evidence implicating them in the theft. In a follow-up experiment, independent laypeople read mock suspects' responses and rated how deceptive they were.

Introduction

Do you remember what you were doing exactly two months ago? Maybe not. Now imagine you are suddenly a suspect in a criminal case and the police ask you for an alibi for that day. You are probably struggling to remember the details. You might even say something that contradicts the police's evidence. The obvious danger for truthful suspects, like yourself, is that forgetting the past and contradicting the evidence could make you look like a liar. This scenario is not as farfetched as it may seem: We know that police around the world are instructed to rely on inconsistencies between suspects' statements and the available evidence to detect if suspects are lying (e.g. Association of Chief Police Officers, 2014; Hartwig et al., 2006; Luke et al., 2016). In this chapter, I ask whether lie detection techniques that hinge on the consistency between a suspect's statements and the evidence the police hold may be effective after a long delay.

It is unsurprising that the police capitalize on verbal cues to detect deception: a growing body of psychological research suggests that, when unaware of the evidence, liars are more likely to make statements that contradict the evidence than

are truth-tellers (e.g., Clemens et al., 2010, 2011; Hartwig et al., 2005). This difference between liars and truth-tellers can be attributed to the different counter-interrogation strategies that suspects adopt when being questioned about a crime (Granhag & Hartwig, 2008, 2015). For liars, incriminating evidence is a threat and the interviewer might or might not possess such evidence (Granhag & Hartwig, 2008; Hartwig et al., 2014). To deal with this threat and to appear credible, liars either avoid mentioning or deny any connection to the crime during the interview. In doing so, liars can unknowingly contradict the evidence that links them to the crime, known as *statement-evidence inconsistencies* (Hartwig et al., 2006).

In contrast, truth-tellers are typically more consistent with the interviewer's evidence because they tend to be forthcoming with their information and simply try to provide an account of what transpired (Colwell et al., 2006; Strömwall et al., 2006). Recall that truth-tellers' forthcoming approach may reflect a *belief in a just world* (Lerner, 1980) coupled with an *illusion of transparency* (Gilovich et al., 1998). As a result, truthful suspects might believe that by speaking to a police interviewer, their innocence will become apparent and justice will triumph (Kassin, 2005; Kassin & Norwick, 2004). For instance, in one experiment, a detective accused students, some innocent and some guilty, of stealing $100 and informed them of their right to silence. While only 36% of the guilty students waived their right to silence, a striking 81% of the innocent students waived their right to silence, chose to talk to the detective, and explained that they "did nothing wrong" and "didn't have anything to hide" (Kassin & Norwick, 2004, p. 216). Similarly, truth-tellers are likely to admit their connection to a crime even if the interviewer has not informed them of the evidence linking them to the crime. In this way, truth-tellers tend to make fewer statement-evidence inconsistencies than do liars.

Accordingly, psychology researchers have developed a new repertoire of police interviewing techniques that use suspects' inconsistencies as a means of detecting deception (e.g., Leins, Fisher, & Vrij, 2012; Leins, Fisher, Vrij, Leal, & Mann, 2011; Vrij et al., 2009). The SUE approach is one such technique with growing empirical support (Hartwig et al., 2014). Recall that SUE involves interviewers asking suspects to freely recall their activity during the time of the crime and to answer specific questions (e.g., "Did you see a briefcase?"; "Did you handle a briefcase?") before disclosing to the suspect the evidence that implicates them in the crime. For instance, in one study looking at SUE, mock suspects either

stole a wallet from a briefcase in a bookshop and lied about it to the interviewer or visited the bookshop in search of a hole-punch in a box underneath the same briefcase and told the truth about it to the interviewer (Hartwig et al., 2006). The study was set up so that evidence, such as the mock suspects' fingerprints found on the briefcase containing the wallet, implicated both the deceptive and truthful suspects in the theft of the wallet. Interviewers trained in SUE disclosed this evidence only after they had questioned the mock suspects on their activity in the bookshop. In these interviews, deceptive mock suspects made more statement-evidence inconsistencies than truthful mock suspects and as a result, trained interviewers accurately detected 85.0% of truthful mock suspects and 85.7% of deceptive mock suspects. Indeed, a meta-analysis of eight studies found a large difference ($d = 1.89$) between deceptive and truthful mock suspects' statement-evidence inconsistencies when evidence was disclosed late in the interview (Hartwig et al., 2014). These findings suggest that statement-evidence inconsistencies could be a robust and diagnostic cue to when suspects are lying.

Further research is needed, however, to explore whether lie detection techniques that rely on suspects' inconsistencies, such as SUE, might work in a variety of forensically relevant conditions—including when suspects are questioned weeks or months after a crime (e.g., Birgitte Tengs case, Shawyer et al., 2009). Up until now, the time delays used in published strategic evidence disclosure studies have been typically short. Upon reviewing the literature, I found 22 published studies in which mock suspects were questioned with some variant of the SUE technique (see Appendix C for details). In 20 of these studies, suspects were questioned within one hour of the activity that they needed to lie or tell the truth about. The only exceptions were Hartwig et al. (2005) with a one week delay and McDougall and Bull (2015) with a delay of 7–10 days. Yet, over a longer delay, say, several weeks or months, truthful suspects might forget what they were doing and also contradict the evidence, leading them to be mistaken for deceptive suspects.

Indeed, truthful suspects' ability to respond consistently with the evidence is likely to be compromised over time given that information encoded in memory can be rapidly forgotten, and over time, becomes increasingly difficult to retrieve (Ebbinghaus, 1913; Schacter, 1999). For instance, in a recent study, truth-tellers and liars witnessed a social interaction and then reported it either immediately after or three weeks later (Harvey, Vrij, Leal, Hope, & Mann, 2017). For all of the liars and

some of the truth-tellers, the social interaction was important to their task and they intentionally encoded it. For the remaining truth-tellers, the social interaction was unimportant and they incidentally encoded it. Immediately after, truth-tellers who intentionally encoded the interaction reported more details than both liars and truth-tellers who incidentally encoded the interaction. Three weeks later, however, there were no differences in the amount of detail reported by liars and both types of truth-tellers—truth-tellers simply forgot some details, while liars continued to report the same amount of detail. Meanwhile, in a study exploring memory for alibi evidence, people were asked to produce an alibi for three weeks earlier and then spend a week searching for evidence to verify this alibi before retelling their alibi (Strange et al., 2014). People were mostly inconsistent when retelling their alibis, simply because they had not accurately recalled what they did three weeks ago the first time around. Similarly, researchers suggest that a longer time delay might put truthful suspects at risk of forgetting their past activities and making more statement-evidence inconsistencies (Granhag & Hartwig, 2008; Hartwig et al., 2006; Vrij et al., 2010)—but this hypothesis has not been tested, until now.

If truth-tellers do make more statement-evidence inconsistencies after a longer time delay, the key issue is that they could be perceived to be lying. People generally perceive verbal inconsistencies as a sign of deception (Brewer, Potter, Fisher, Bond, & Luszcz, 1999). For example, both police and laypeople are more likely to judge suspects to be guilty when they change their alibis (Culhane & Hosch, 2012). Relatedly, professional lie-catchers such as police, prosecutors, and judges expect truthful statements to be more internally consistent than deceptive statements (Strömwall & Granhag, 2003). It is therefore likely that if truthful suspects are inconsistent with police evidence after a longer time delay, they will appear deceptive, which in turn reduces the diagnostic utility of statement-evidence inconsistencies as a cue to deception.

In two experiments, I explored whether truthful and deceptive suspects contradict evidence to the same extent after an extended time delay. In Experiment 4, subjects were asked to visit a university bookshop and search for a hole-punch (truth-tellers) or steal a wallet from a bag (liars) in a procedure similar to that of Hartwig et al. (2006). The activity was set up to generate evidence, such as eyewitness accounts, that implicated both truth-tellers and liars in the theft of the wallet. Subjects were questioned about their activity in the bookshop either shortly

after or two months after without being informed of the evidence implicating them in the theft. Note that in this study, as in past SUE research, all truth-tellers were innocent and all liars were guilty (e.g., Hartwig et al., 2005, 2006). The factors of guilt and deception were not manipulated separately given that deliberately deceptive innocent suspects are likely to be uncommon in the real world and truth-telling guilty suspects would essentially be confessing to the crime, a scenario in which lie detection would be unnecessary. In Experiment 5, an independent group of laypeople read these subjects' responses and judged to what extent the subjects were lying.

Experiment 4

Method

Subjects and design. A power analysis using G*Power (Faul et al., 2007), assuming a large effect size of $f = 0.4$ (based on Hartwig et al., 2014), and $\alpha = 0.05$ for 4 groups, suggested a sample size of 84 subjects (21 subjects per group) would be sufficient for a power of 0.95. In total, 136 people from the University of Warwick community participated in Phase 1. Six subjects from the truthful condition were excluded at Phase 1 for bringing the wallet to the researcher ($n = 3$) or for failing to touch the bag while searching for the hole-punch ($n = 3$, confirmed by a research assistant observing the subject). A further 11 subjects (4 long-delay truth-tellers, 4 long-delay liars, 2 short-delay truth-tellers, and 1 short-delay liar) failed to complete Phase 2, and one subject was excluded from the deceptive condition after Phase 2 for not lying about stealing the wallet. The final sample consisted of 118 subjects (112 provided their age, $M = 20.6$ years, $SD = 3.4$, range = 18–44; 74 women, 42 men, and 2 subjects who identified as other). Subjects were randomly assigned to one of four conditions in a 2 (suspect: truth-teller vs. liar) × 2 (time delay: short vs. long) between-subjects design. Cell size ranged from 28–31 subjects. The key dependent variable was subjects' statement-evidence inconsistencies.

Upon completing the experiment, subjects were entered in a lottery to win one of ten £10 vouchers. The research was approved by the University of Warwick Psychology Department Research Ethics Committee.

Procedure

Phase 1. The study was advertised online as a real-world search and retrieval study. Subjects participated individually. They met a researcher at the Warwick Arts Centre who instructed them to retrieve an object from the University bookshop, also located within the Arts Centre. Subjects had to enter the bookshop and walk past two

pot plants at the entrance. Truth-tellers had to retrieve a hole-punch from inside an orange box in the second row of bookshelves (the Law section), where a computer and telephone are prominently located. If they could not find the hole-punch after searching for a minute, subjects were to return to the researcher. In fact, there was never a hole-punch in the orange box, so no one found the hole-punch. To search for it, however, truth-tellers had to move a black bag, with a brown wallet sticking out, from on top of the orange box.

Meanwhile, liars were informed that the study would involve committing a fake crime: stealing a wallet from the bookshop. For ethical reasons, subjects were informed that this was not a real crime since the wallet belonged to the researcher and the bookshop's manager and employees were fully aware that the study was taking place. If subjects did not object to stealing the wallet (none did), they visited the second row of bookshelves and searched for the same black bag that truth-tellers searched for and moved. Liars took the wallet from the bag and brought it back to the researcher. Following Phase 1, which took between five to ten minutes, all subjects were told that they would be sent an online questionnaire within a few months. To simulate a real-life criminal investigation in which innocent suspects are unaware that they will be later questioned about their actions, subjects were not informed what the online questionnaire was about. All subjects were thanked and sent home.

During Phase 1, a research assistant covertly observed subjects from within the bookshop. The research assistant, positioned a few meters away from the orange box and bag, verified whether each subject visited the Law section and handled the bag, either while searching for the hole-punch or while removing the wallet. Thus, Phase 1 generated three pieces of evidence implicating each subject in the theft of the wallet: (1) eyewitness testimony that the subject entered the bookshop; (2) eyewitness testimony that the subject visited the Law section where the wallet was located; and (3) the subject's fingerprints found on the bag containing the wallet.

Phase 2. Phase 2 took place online to minimize attrition in the long-delay conditions. Short-delay subjects received an online questionnaire on the day they completed Phase 1 and long-delay subjects received the questionnaire two months after they completed Phase 1. Long-delay subjects who failed to complete the questionnaire in a timely manner were sent a reminder one week later. Short-delay subjects completed Phase 2 within 0–3 days of Phase 1 ($M = 0$, $SD = 0.8$ days) while

long-delay subjects completed Phase 2 within 55–80 days of Phase 1 ($M = 63$, $SD = 3.6$ days).

The questionnaire started by asking subjects what they thought was the study's purpose (no one guessed correctly). All subjects were then informed that they were suspected of stealing a wallet from the bookshop. They were told that the investigators had some information indicating their guilt, but as they were not certain, they wanted to question the subject. Truth-tellers were instructed to tell the truth about their Phase 1 activity while liars were instructed to lie about taking the wallet. All subjects were told that to stand a chance to win a £10 voucher, they needed to convince the investigators of their innocence. In fact, all subjects were entered into a lottery to win £10 vouchers regardless of their performance on the task. As a comprehension check, subjects were asked what they were expected to do next and given four options (e.g., "I should lie about what I did in Phase 1 of the study"). Subjects could only proceed with the study when they answered correctly according to their condition. If subjects answered incorrectly, they were prompted to reread the instructions and answer the question again.

Next, subjects were asked SUE-style questions relating to evidence generated in Phase 1, see Table 7.1. These questions were modelled on interview questions used in past SUE research (Hartwig et al., 2014; Luke, Hartwig, Shamash, & Granhag, 2016). While SUE also involves asking suspects for a free recall account, subjects in this study were only asked specific questions because liars contradict evidence more when answering evidence-specific questions than when freely recalling an account (Hartwig et al., 2011). Each question was presented on a separate page so that subjects could not change their answers to earlier questions. Unlike face-to-face interviews in which an interviewer can flexibly change their line of questioning based on a suspect's responses, the online questionnaire required subjects to answer a fixed set of questions regardless of how they answered initial questions. For instance, even if a subject claimed they did not visit the bookshop in response to the first question, they were still presented with the remaining questions about their activity within the bookshop. In response, subjects continued to deny visiting the bookshop. All subjects were asked whether they took anything from the black bag (everyone said no). Subjects were never informed of the evidence implicating them in the theft. Finally, subjects rated the difficulty of the task (1 = *not*

difficult at all; 7 = *extremely difficult)*, provided demographic information, and were debriefed.

Table 7.1.

SUE-style interview questions relating to each piece of evidence.

Eyewitness testimony of subject entering bookshop	Eyewitness testimony of subject visiting second row of shelves	Subject's fingerprints found on the bag containing wallet
Did you visit the bookshop on campus? Did you pass by the two pot plants?	What did you do in the bookshop? Which parts of the bookshop did you visit? Did you see a computer and telephone? Did you visit the Law section of the bookshop?	Did you see a black bag in the bookshop? If yes, where was the black bag? Did you do anything with the black bag? Did you handle the black bag? Did you see anything in the black bag? If yes, what did you see in the black bag?

Results and Discussion

Coding subjects' responses. To measure subjects' statement-evidence inconsistency, two highly trained independent raters, blind to condition and the study's hypotheses, separately coded all subjects' responses. The raters followed Sorochinski et al.'s (2014) coding scheme. For each piece of evidence, the raters decided whether the subject's statements, as a whole (across all 12 questions), were completely consistent with the evidence (score of 1), partially or possibly consistent with the evidence (score of 2), or completely inconsistent with the evidence (score of 3). Although the 12 questions were formulated in relation to specific pieces of evidence (see Table 7.1), subjects sometimes described their complete activity within the bookshop in response to a single question. Thus, raters considered subjects' responses to all 12 questions when assigning them statement-evidence inconsistency scores for each of the three pieces of evidence.

For an example of how raters coded a subject's statements, consider a subject who responded to the questions by stating that they entered the bookshop, cannot remember whether they visited the Law section (or the second row of bookshelves as some subjects recalled it), and definitely did not handle a black bag. This subject would receive statement-evidence inconsistency scores of 1, 2, and 3 for evidence pertaining to their bookshop entry (eyewitness testimony), their Law section visit

(eyewitness testimony), and their handling of the black bag (fingerprint evidence) respectively. Put simply, each subject received three statement-evidence inconsistency scores—one per piece of evidence. Finally, the raters gave each subject a summed, total statement-evidence inconsistency score that could range from 3 (completely consistent with all three pieces of evidence) to 9 (completely inconsistent with all three pieces of evidence). Thus, in my example above, the subject would receive a total statement-evidence inconsistency score of 6. Note that only one subject made internally inconsistent statements by claiming that they did not visit the Law section of the bookshop but that they did handle the black bag (which was located in the Law section). For this subject, the raters assigned statement-evidence inconsistency scores of 3 (completely inconsistent) for the evidence pertaining to the Law section visit and 1 (completely consistent) for the evidence that they handled the black bag. The two raters had almost perfect agreement, $\kappa = .85$ [95% CI: 0.80, 0.90], $p < .001$ (Landis & Koch, 1977) and disagreements were resolved via discussion.

Main analysis

Statement-evidence inconsistency. Figure 7.1 shows mean statement-evidence inconsistency ratings for subjects' responses. In line with past research, liars contradicted the evidence more than truth-tellers did—presumably because liars were denying their connection to the theft of the wallet while truth-tellers were forthcoming about their bookshop activity (e.g., Clemens et al., 2011; Hartwig et al., 2014). Additionally, long-delay subjects contradicted the evidence more than short-delay subjects did, fitting with past research in which people forget details and tell less consistent stories over time (Harvey et al., 2017; Strange et al., 2014). A 2×2 between-subjects ANOVA on subjects' statement-evidence inconsistency scores revealed main effects of suspect condition, $F(1,114) = 113.99$, $p < .001$, $\eta_p^2 = .500$, and time delay, $F(1,114) = 7.55$, $p = .007$, $\eta_p^2 = .062$, but no interactive effect of suspect condition and time delay, $F(1,114) = .30$, $p = .588$, $\eta_p^2 = .003$. Specifically, liars made more statement-evidence inconsistencies than did truth-tellers, $M_{dec} = 7.18$, $SD_{dec} = 1.55$ vs. $M_{tru} = 4.50$, $SD_{tru} = 1.23$, $d = 1.92$, [95% CI: 1.48, 2.36]. There was a large difference between statement-evidence inconsistencies made by liars and truth-tellers shortly after the crime, $M_{diff} = 2.83$ [95% CI: 2.07, 3.58], $d = 2.00$ [95% CI: 1.35, 2.65], and crucially, two months after the crime, $M_{diff} = 2.55$ [95% CI: 1.88, 3.23], $d = 1.94$ [95% CI: 1.32, 2.56]. Moreover, long-delay subjects contradicted

evidence slightly more than short-delay subjects, $M_{lon} = 6.20$, $SD_{lon} = 1.83$ vs. $M_{sho} =$ 5.51, $SD_{sho} = 2.00$, $d = 0.36$ [95% CI: –0.01, 0.73]. Finally, a follow-up independent samples *t*-test highlighted that short-delay liars made more statement-evidence inconsistencies than did long-delay truth-tellers, $t(57) = 5.21$, $p < .001$, $M_{diff} = 2.00$ [95% CI: 1.23, 2.76], $d = 1.36$ [95% CI: 0.78, 1.92]. Together, these results suggest that truth-tellers were uniformly at less risk of making statement-evidence inconsistencies than were liars.
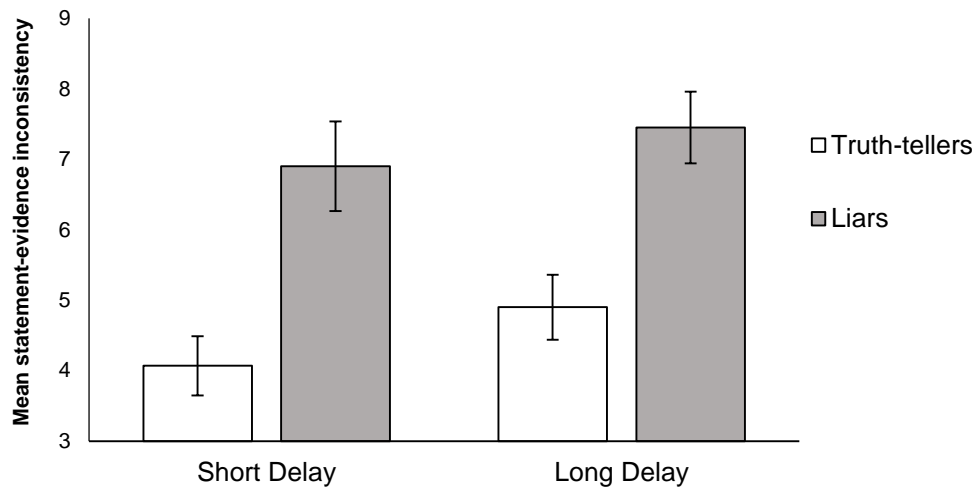
Figure 7.1. Mean statement-evidence inconsistency ratings of subjects' responses, ranging from 3 (completely consistent with all three pieces of evidence) to 9 (completely inconsistent with all three pieces of evidence). Error bars represent 95% confidence intervals.

Inconsistency with individual pieces of evidence. Given that even truth-tellers were contradicting some evidence after both time delays, it would be useful for the police to know which types of evidence truth-tellers and liars might be more likely to contradict. To this end, I examined how many subjects in each condition were completely consistent, partially or possibly consistent, and completely inconsistent with each piece of evidence. There are two key points to note from this analysis, shown in Table 7.2. First, many truth-tellers (39% short delay; 63% long delay) failed to report handling the bag and contradicted the fingerprint evidence. Unlike entering the bookshop and visiting the Law section, handling the black bag was irrelevant to the truth-tellers' task of finding the hole-punch. Therefore, truth-

tellers might have failed to initially notice the bag or later recall it, similar to past research in which people are less likely to notice or recall things that are irrelevant to their activity (Harvey et al., 2017; Rees et al., 1999; Simons & Chabris, 1999). Indeed, in Harvey et al.'s study, truth-tellers who incidentally encoded the social interaction later reported fewer details than truth-tellers who were instructed to attend to the social interaction as part of their task. Likewise, in this study, task irrelevance at the time of encoding could explain why truth-tellers contradicted the fingerprint evidence at surprisingly high rates, particularly after a long delay. Of course, the police might not be able to assess whether information was relevant to a suspect at the time of encoding without first knowing whether the suspect is lying or telling the truth. Nonetheless, it is important for the police to bear in mind that truthful innocent suspects could also make statement-evidence inconsistencies simply because information which is relevant to the police's evidence was irrelevant to the activity of a truthful innocent suspect.

The second point to note is that liars' contradictions of the evidence became more pronounced the more incriminating the evidence was. While some liars admitted to entering the bookshop, hardly any liars reported handling the black bag that contained the wallet. This result provides further support for liars' counter-interrogation strategy of denial in which they distance themselves from the crime (Granhag & Hartwig, 2008; Hartwig et al., 2014). In this study, the fingerprint evidence was both the most incriminating (leading most liars to contradict it) and the least relevant to truth-tellers' activity (leading many truth-tellers to contradict it). Thus, when using statement-evidence inconsistencies to detect deception, police interviewers may need to consider how incriminating the evidence is as well as its potential irrelevance to truthful suspects.

Table 7.2.

Percentage of suspects as a function of the consistency of their responses with each piece of evidence.

Evidence	Time delay	Suspect condition	Completely consistent subjects (%)	Partially consistent subjects (%)	Completely inconsistent subjects (%)
Bookshop entry	Short	Truth-teller	100	0	0
		Liar	66	3	31
	Long	Truth-teller	100	0	0
		Liar	58	3	39
Law section visit	Short	Truth-teller	82	14	4
		Liar	21	21	59
	Long	Truth-teller	57	33	10
		Liar	7	23	71
Handling black bag	Short	Truth-teller	54	7	39
		Liar	7	0	93
	Long	Truth-teller	27	10	63
		Liar	0	0	100

Difficulty scores. Across conditions subjects found answering interview questions moderately easy ($M = 2.71$, $SD = 1.74$). A 2×2 between-subjects ANOVA showed that overall, suspect condition and time delay had no main or interactive effects on subjects' perceptions of difficulty, Fs(1, 114) < .01, ps > .95. Thus, surprisingly, subjects did not find it harder to answer interview questions about an activity from two months ago compared to an activity from the last few days.

Overall, Experiment 4 showed that when liars are unaware of the evidence, they contradicted the evidence more than truth-tellers did, even after a two month delay—though a surprisingly high number of truth-tellers contradicted the fingerprint evidence, particularly after a long delay. Experiment 5 examined whether laypeople were sensitive to these differences between liars and truth-tellers by presenting mock suspect responses from Experiment 4 to a group of independent subjects and asking them to rate how deceptive they believe the mock suspects are.

Experiment 5

Method

Subjects and design. Each mock suspect's response from Experiment 4 was presented to at least two laypeople. A sample of laypeople were recruited via

Amazon Mechanical Turk and paid 50 cents (USD) for participating. Only people who judged their fluency in English to be excellent or native could participate. In total, 250 people took part but 13 people were excluded from completing the study after failing the comprehension check. Thus, the final sample consisted of 237 laypeople (M = 38.5 years, SD = 11.9, range = 18–76; 125 men and 112 women).

Laypeople were shown a single mock suspect's response from one of four cells produced by the 2 (suspect: truth-teller vs. liar) × 2 (time delay: short vs. long) between-subjects design. Cell sizes ranged from 56–62 subjects. The dependent variable was laypeople's perceptions of mock suspects' deceptiveness, measured using a forced-choice response and Likert scale.

Procedure. The procedure consisted of two stages. First, laypeople read some background case information. Then they read the interview questions and one mock suspect's answers from Experiment 4 before judging the mock suspect's deceptiveness. More specifically, laypeople were initially informed that they would be presented with a fictional case of theft and that their task was to judge whether a student being questioned about the theft was telling the truth. Mock suspects were referred to as students to prevent laypeople from judging all mock suspect responses as deceptive. Laypeople were shown a photo of the wallet and bag in the bookshop and informed that the wallet had been stolen from the bookshop. Next, laypeople were informed of the evidence from Experiment 4 implicating the student in the theft. It was emphasized that the evidence did not prove the student's guilt—only that the student visited the bookshop and handled the bag, possibly accidentally. At this stage, laypeople answered a multiple-choice comprehension question about the information they had just read and only laypeople who answered correctly could proceed with the study.

In the second stage, laypeople were informed that the bookshop owner questioned the student about the theft but that the student did not know the evidence. The interview questions and respective mock suspects' answers were shown to laypeople along with a reminder of the evidence. Laypeople were additionally told that there was a 50% chance that they were seeing a response from a truthful student and a 50% chance that they were seeing a response from a deceptive student. This instruction about the base rate of truthful and deceptive responses was included because laypeople might assume that anyone questioned about a crime is guilty (Hartwig et al., 2005; Kassin et al., 2003). Laypeople were then asked two questions.

First they were asked "Do you think the student is lying?" (yes or no). Next they were asked, "To what extent is the student lying?" (1 = *completely truthful*; 9 = *completely lying*). Finally, all laypeople were asked for demographic information before being thanked, debriefed, and paid.

Results and Discussion

Deception judgements. Starting with laypeople's responses to the forced choice question: Laypeople were more likely to indicate that liars were lying than truth-tellers after both time delays. I conducted a between-subjects logistic regression in which the suspect condition and time delay factors were dummy coded, including exploratory analyses on the interaction effect of suspect condition and time delay on people's judgements about whether mock suspects were lying, Wald's $\chi^2(1)$ = 3.02, p = .082, OR = 3.67 [95% CI: 0.85, 15.92]. Specifically, laypeople perceived more liars to be lying than truth-tellers after a short delay (91.5% vs. 46.4%), Wald's $\chi^2(1)$ = 21.92, p < .001, OR = 12.46 [95% CI: 4.33, 35.83] and to some extent after a long delay too (90.3% vs. 73.3%), Wald's $\chi^2(1)$ = 5.54, p = .019, OR = 3.39 [95% CI: 1.23, 9.39]. Laypeople, however, perceived more truth-tellers to be lying after a long delay (73.3%) compared to after a short delay (46.4%), Wald's $\chi^2(1)$ = 8.49, p = .004, OR = 3.17 [95% CI: 1.46, 6.90]. Laypeople were equally likely to perceive liars to be lying after both a short delay (91.5%) and a long delay (90.3%), Wald's $\chi^2(1)$ = 0.05, p = .818, OR = 0.86 [95% CI: 0.25, 3.00]. Though laypeople perceived more liars to be lying than truth-tellers after both time delays, they also perceived a surprisingly high number of truth-tellers to be lying, particularly after a long delay. As Table 7.2 shows, even truth-tellers were not completely consistent with all three pieces of evidence and this could explain why laypeople incorrectly perceived so many truth-tellers to be lying. These results suggest that SUE might assist in detecting deception even with a two month delay between the crime and interview, but there is also a risk that truth-tellers might appear less credible after two months.

Turning now to laypeople's responses on the Likert scale: Figure 7.2 displays laypeople's mean ratings of the extent to which they thought mock suspects were lying (1 = *completely truthful*; 9 = *completely lying*). Laypeople rated liars as less credible than truth-tellers both immediately after the bookshop visit and two months later, though they also rated truth-tellers as somewhat less credible after two months. A 2 × 2 between-subjects ANOVA revealed main effects of mock suspect condition, $F(1, 233)$ = 50.38, p < .001, η_p^2 = .178 and time delay, $F(1, 233)$ = 16.12, p < .001,

$\eta_p^2 = .065$, as well as an interaction effect of mock suspect condition and time delay on laypeople's deceptiveness ratings, $F(1, 233) = 4.31$, $p = .039$, $\eta_p^2 = .018$. Laypeople rated liars as more deceptive than truth-tellers, $M_{\text{diff}} = 1.94$ [95% CI: 1.38, 2.51], $d = 0.87$ [95% CI: 0.60, 1.14], and mock suspects questioned after a long delay as more deceptive than mock suspects questioned after a short delay, $M_{\text{diff}} = 1.09$ [95% CI: 0.48, 1.70], $d = 0.46$ [95% CI: 0.20, 0.72]. Follow-up analyses for the interaction revealed that laypeople rated liars as more deceptive than truth-tellers after both a short time delay, $F(1, 233) = 40.87$, $p < .001$, $M_{\text{diff}} = 2.54$ [95% CI: 1.76, 3.32], $d = 1.13$ [95% CI: 0.73, 1.53], and a long time delay, $F(1, 233) = 13.00$, $p < .001$, $M_{\text{diff}} = 1.39$ [95% CI: 0.63, 2.15], $d = 0.69$ [95% CI: 0.32, 1.06]. Meanwhile, laypeople rated truth-tellers as more deceptive after a long delay than after a short-delay, $F(1, 233) = 18.16$, $p < .001$, $M_{\text{diff}} = 1.69$ [95% CI: 0.91, 2.47], $d = 0.66$ [95% CI: 0.28, 1.04]. Finally, time delay did not impact laypeople's deceptiveness ratings for liars, $F(1, 233) = 1.92$, $p = .167$.

As in Experiment 4, I conducted an independent samples *t*-test comparing laypeople's deceptiveness ratings of short-delay liars and long-delay truth-tellers, $t(105.43) = 2.35$, $p = .020$. Laypeople rated short-delay liars as only slightly more deceptive than long-delay truth-tellers, $M_{\text{diff}} = 0.85$ [95% CI: 0.14, 1.57], $d = 0.43$ [95% CI: 0.07, 0.79]. Thus, truth-tellers questioned after two months may be at risk of appearing almost as deceptive as liars questioned immediately after the crime.
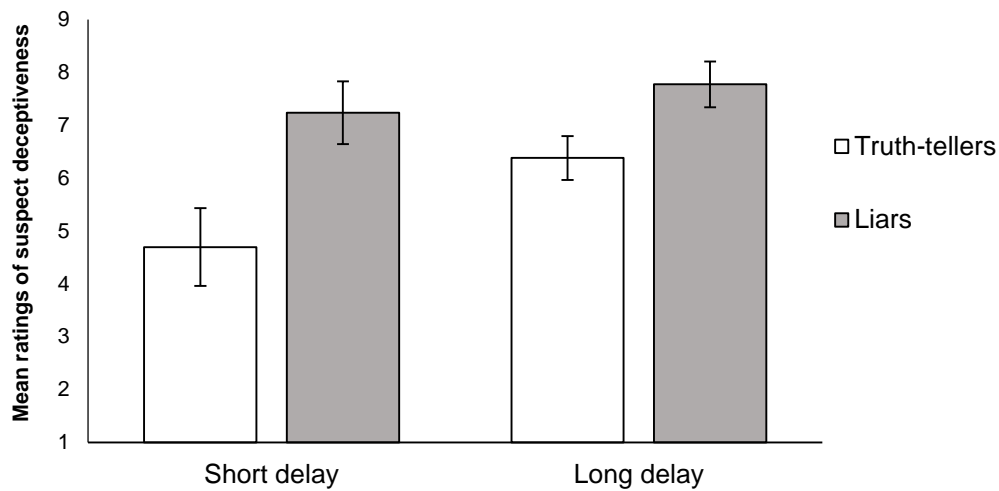
Figure 7.2. Laypeople's mean ratings of the extent to which the mock suspect was lying (1 = *completely truthful*; 9 = *completely lying*). Error bars represent 95% confidence intervals.

Relationship between deception ratings and statement-evidence inconsistencies. Recall that, in Experiment 4, mock suspects received statement-evidence inconsistency scores between 3 (completely consistent with all evidence) and 9 (completely inconsistent with all evidence). These statement-evidence inconsistency scores positively correlated with laypeople's deception ratings of mock suspects, meaning the more mock suspects contradicted evidence, the more deceptive they appeared to laypeople, $r(235) = .531$ [95% CI: 0.43, 0.62], $p < .001$. Thus, as in past studies, laypeople likely relied upon mock suspects' statement-evidence inconsistencies when making deception judgements (Hartwig et al., 2005, 2006). This correlation, however, does not explain why laypeople rated long-delay truth-tellers as more deceptive than short-delay truth-tellers on the Likert scale despite both groups having similar total statement-evidence inconsistency scores. As Table 7.2 shows, one key difference between the groups is that long-delay truth-tellers contradicted the fingerprint evidence more than short-delay truth-tellers did. Indeed, laypeople's deception ratings and mock suspects' inconsistency with the fingerprint evidence are positively correlated, $r(235) = .552$ [95% CI: 0.46, 0.63], $p < .001$. Therefore, laypeople might have rated long-delay truth-tellers as more deceptive than their short-delay counterparts because they gave more weight to mock

suspects' contradictions of the fingerprint evidence, the most incriminating evidence, than to contradictions of the less incriminating eyewitness evidence.

General Discussion

To my knowledge, this is the first study looking at truthful and deceptive suspects' responses to interview questions after an extended delay of two months. Extending past research on the SUE technique, the study showed that liars contradicted evidence more than truth-tellers did both shortly after and two months after the crime (Clemens et al., 2011; Hartwig et al., 2005, 2014). The pattern of mock suspects' responses in this study is consistent with past research on liars and truth-tellers' counter-interrogation strategies (Granhag & Hartwig, 2008, 2015). Liars adopted a denial strategy to distance themselves from the stolen wallet and appear credible, while truth-tellers were forthcoming and were more likely to disclose what they did in the bookshop. Moreover, laypeople, likely relying on statement-evidence inconsistencies, rated liars as more deceptive than truth-tellers after both time delays. Notably, laypeople rated truth-tellers questioned two months after the crime as more deceptive than truth-tellers' questioned shortly after the crime—possibly because many truth-tellers who were questioned two months after the crime contradicted the fingerprint evidence. These findings are consistent with past research in which people infer that someone is being deceptive on the basis of their verbal inconsistencies (Brewer et al., 1999; Culhane & Hosch, 2012; Strömwall & Granhag, 2003).

The finding that truth-tellers are more consistent with evidence than are liars even after a two month delay might appear to conflict with past research in which truthful, innocent mock suspects forget details of their past activities from only three weeks ago (Harvey et al., 2017; Strange et al., 2014). However, truth-tellers in this study likely forgot some details, such as handling the black bag, after the extended delay of two months too, but crucially, they still recalled enough of their past activity, such as visiting the bookshop and its Law section, to respond more consistently with the evidence than did liars. Thus, time delay and memory decay might constrain the effectiveness of some lie detection techniques which rely upon the richness of detail reported by suspects (Harvey et al., 2017), but perhaps not other lie detection techniques, such as SUE which relies upon how much suspects contradict police evidence. The pattern of mock suspects' verbal responses in this study suggest that overall, liars' tendency to distance themselves from the crime

outweighs any memory decay truth-tellers might experience in the two months following a crime. In other words, even if truthful suspects forget some details of their activity and contradict a single piece of evidence, they are still more likely to be consistent with the evidence overall than deceptive suspects who deliberately deny their connections to the crime to appear credible.

On a practical level the findings provide further support for the SUE technique by showing that overall, statement-evidence inconsistencies could serve as diagnostic cues to deceit even after an extended time delay and that the police might be able to employ the SUE technique to detect deception effectively even when questioning suspects two months after the crime. Caution is recommended, however, when interpreting a suspect's contradiction of an individual piece of evidence as it might be less indicative of deception and instead reflect a truthful suspect's failure to encode or later recall task-irrelevant information from the time of the crime. This is crucial given that even all of the truth-tellers questioned shortly after the crime did not respond completely consistently with the evidence, and of course, the misclassification of even one truthful suspect as deceptive could have devastating consequences for the accused individual.

In the current study, I created an everyday situation—a visit to a bookshop—that innocent, truthful suspects might have to recall during a police interview. Crucially, truthful mock suspects were not informed that they would be questioned about their activity two months later to prevent them from attending to the activity more closely than an everyday activity or rehearsing their memory of the activity in preparation for the interview. Nonetheless, anecdotally, most of the subjects reported that they had never visited the University bookshop as part of a research study so their experience in this study might have been memorable, making it easier for truth-tellers to respond consistently with evidence even two months later. Future research could test mock suspects' memories for both mundane and novel tasks and locations, to better mirror the activities that truthful suspects might need to recall at interview.

Another matter for future research is testing the effectiveness of the SUE technique with even longer time delays as truthful suspects might be increasingly prone to forgetting the past and contradicting evidence over longer timeframes. The obvious risk is that people within the criminal justice system, including police interviewers and jurors, might then perceive truthful suspects to be even more deceptive. Relatedly, while laypeople in this study rated short-delay liars as only

slightly more deceptive than long-delay truth-tellers, the laypeople were not informed of the time delay between the mock suspect visiting the bookshop and being questioned about the visit. It is likely that in practice, however, police interviewers and jurors will be aware of the time delay between an alleged incident and a suspect being questioned about the incident. Therefore, it would be useful to explore to what extent police interviewers and jurors adjust their deception judgements of suspects to account for the passage of time and its effect on the number of statement-evidence inconsistencies even an innocent truthful suspect might make.

Finally, I scored mock suspects' statement-evidence inconsistencies using a coding scheme that is typically employed in SUE research (e.g. Sorochinski et al., 2014) to ensure that the results of the study are, to some extent, comparable with the growing number of past SUE studies in which shorter time delays are employed. Nevertheless, more sophisticated coding schemes could be used in future SUE research. For instance, given that mock suspects in this study contradicted different pieces of evidence at different rates depending on how irrelevant or incriminating it was, researchers could differentially weigh statement-evidence inconsistencies based on the importance of the evidence within the case. Moreover, a mock suspect's claim that they do not know or cannot remember something, such as visiting a particular location, is not actually consistent or inconsistent with evidence showing that they visited that location. Thus, an alternative to assigning these ambiguous statements a score of 2 (possibly consistent with the evidence)—which still contributes to the suspects' total statement-evidence inconsistency score—is to simply focus on mock suspects' remaining statements for inconsistencies with the evidence. In other words, researchers could use a binary code and categorize mock suspects' statements as either completely consistent or completely inconsistent with each piece of evidence. If necessary, suspects' ambiguous statements, which might be more likely after greater time delays, could be treated as a separate measure to statement-evidence inconsistencies.

In conclusion, though researchers suggested that an extended time delay between the crime and interview might make the SUE technique less diagnostic in lie detection, this study has demonstrated that truthful mock suspects might still recall enough information after two months to respond more consistently with the evidence than liars (Granhag & Hartwig, 2008; Hartwig et al., 2006; Vrij et al.,

2010). So, even if you can't recall exactly what you were doing two months ago when the police question you—chances are, you will still sound more credible than a liar.

Chapter 8:
General Discussion

This thesis aimed to investigate the broader implications of strategic disclosure of evidence in police interviews with suspects. In doing so, the research considered arguments and research on strategic evidence disclosure from both psychology and law, took quantitative methods from psychology and qualitative methods from law, and now forms part of the rise in interdisciplinary research (Jaffe, 2009). From live observations of police station disclosure practices and surveys of criminal defence lawyers, to experiments with mock interviewers and mock suspects, this research programme used multiple research methods to address strategic evidence disclosure from the lawyer's, police interviewer's, and suspect's perspectives. Bringing together the key findings from these studies, this chapter first provides a summary of each study, before considering the practical implications and directions for future research.

Summary

In Chapter 4, fieldwork involving observations of police disclosure practices, lawyer-client consultations, and police interviews with suspects offered key insights into how English and Welsh police currently disclose their evidence to lawyers and suspects and how lawyers rely upon this disclosure to advise their clients prior to the interview. Specifically, this field study found that in the nine police stations observed, pre-interview disclosure was a fixed practice, though the format (verbal or written) varied and lawyers rarely saw the actual evidence prior to the interview. While the police did sometimes withhold details of the evidence from the lawyer, exaggerate evidence to the suspect, or introduce new information during the interview, limited pre-interview disclosure was not always a tactic—sometimes investigations were still on-going and the police simply did not have any further evidence to disclose. Occasionally, the lack of disclosure caused tension between police and lawyers. Finally, the lawyers observed always relied upon the evidence and information disclosed by the police when advising their clients in custody. Overall, the police were generally quite forthcoming in their disclosure meetings with lawyers and typically, only withheld specific details of the evidence.

Chapter 5 then looked at how the timing of police evidence disclosure impacted custodial legal advice at the police station by asking 100 lawyers to advise a hypothetical client when given police evidence disclosure either before or during the hypothetical police interview. The study found that with pre-interview disclosure, lawyers offered detailed, case-specific legal advice and, particularly when the client claimed to be innocent, they tended to be more cooperative with the police and advise the client to put forward their account during the interview. In contrast, when lawyers did not receive the evidence until the interview stage, their advice to the client focused on how to respond to the lack of disclosure, for instance, by arguing with the police or advising the client to make no comment during the interview. Lawyers who received evidence during the interview stage also claimed they would interrupt the interview to advise their clients on the evidence disclosed more often than lawyers who received all the evidence prior to the interview. Additionally, lawyers consistently reported that pre-interview disclosure was fairest to suspects citing reasons such as suspects receiving effective legal advice, having an informed client, a more efficient police interview process, and the police maintaining their role as an impartial investigator. Finally, to be able to advise their clients effectively, lawyers reported that they would need different levels of evidence disclosure from the police, ranging from all of the evidence being released before the interview to only specific pieces, such as CCTV footage or DNA evidence. Taken together, this survey of lawyers highlighted how much lawyers rely on the evidence disclosed by police when advising their clients in custody.

Chapter 6 then shifted from lawyers' arguments against the police strategically disclosing evidence in interviews and considered a potential benefit of planning strategic evidence disclosure for police interviewers: interviewers might be less likely to believe the suspect is guilty after having to generate alternative explanations for the evidence before the interview. Theoretically, generating alternatives should encourage people to more carefully evaluate evidence and make a less biased judgement (Hirt & Markman, 1995). In three experiments, laypeople read criminal cases and either generated alternative explanations for the evidence implicating the suspect, as interviewers might do while planning to strategically disclose evidence, or completed a control task before judging the suspect's guilt. In Experiments 1 and 2, subjects who generated alternative explanations made similar guilt ratings to subjects who did not generate alternative explanations. In Experiment

3, some subjects were instructed to produce one alternative explanation and others were instructed to produce multiple alternative explanations. The multiple-alternatives people made slightly lower guilt ratings. A mini meta-analysis of all three experiments suggested that, overall, generating alternative explanations, the way police interviewers might do before strategically disclosing evidence, had a very small effect, or possibly no effect at all, on people's beliefs about the suspect's guilt. It is possible that people's initial beliefs about the suspect's guilt persevered because their alternative explanations only changed the exact nature of the crime scenario, whereas in past debiasing research, when people generated alternative explanations, they constructed entirely different scenarios with different outcomes (Hirt & Markman, 1995; Sanna et al., 2002). It is also possible that a fluency effect was at play in which people inferred from their experienced difficulty of generating multiple alternative explanations, or even a single alternative explanation, that the alternative explanations were less likely than their initial hypothesis regarding the criminal case.

Finally, Chapter 7 explored the potential for strategic evidence disclosure to be used with suspects after a more forensically relevant time delay, such as two months, between the crime and interview. After two months, even truthful suspects might forget what they were doing, contradict the evidence, and risk looking like liars. In a mock crime experiment, mock suspects either committed a theft (liars) or a benign activity (truth-tellers) in a university bookshop. Shortly after or two months later, they were questioned about the bookshop event without being informed of the evidence implicating them in the theft—similar to strategic evidence disclosure protocols. Though truth-tellers contradicted some evidence after both time delays, on average, liars still contradicted the evidence more than did truth-tellers. In line with the theoretical underpinnings of the SUE technique, truth-tellers adopted a forthcoming counter-interrogation strategy when reporting their bookshop activity while liars adopted a denial strategy and distanced themselves from the bookshop theft. Crucially, liars' tendency to distance themselves from the crime and appear innocent outweighed any memory decay that truth-tellers experienced in the two months following their bookshop visit. Thus, overall, liars made more statement-evidence inconsistencies than truth-tellers after both time delays.

In a follow-up experiment, the mock suspects' responses were presented to an independent group of laypeople who were asked to rate how deceptive the

suspects were. Laypeople rated liars as more deceptive than truth-tellers after both time delays. However, laypeople also rated truth-tellers who were questioned two months later as more deceptive than truth-tellers who were questioned shortly after the crime. Together, these two experiments suggest that, even after two months, police interviewers might be able to detect lies by strategically withholding evidence from suspects and examining the extent to which suspects contradict the evidence in their statements—although truthful suspects might be at a greater risk of appearing deceptive when questioned two months after a crime.

Practical Implications

In England and Wales, the police are largely free to decide how and when to disclose their evidence to suspects, and their lawyers, during the interview process (Cape, 2015; Clough & Jackson, 2012). Indeed, both the courts and the key legislation governing police disclosure allow the police to decide the extent and timing of their evidence disclosure during the interview process on a case-by-case basis (e.g., Police and Criminal Evidence Act 1984, Code C, 2017; *R v. Nottle*, 2004). Accordingly, past research has highlighted that police station disclosure practices can vary substantially from case to case (Blackstock et al., 2014; Kemp, 2013; McConville & Hodgson, 1993; Quinn & Jackson, 2007). For instance, the police observed during the fieldwork in this thesis (Chapter 4) were generally quite forthcoming with lawyers when disclosing their evidence before the suspect interview. In contrast, police in other research preferred delaying evidence disclosure until later in the interview process (King, 2002; Smith & Bull, 2014; Walsh et al., 2016).

While police investigators vary in their evidence disclosure methods, academics from psychology and from law also hold very different perspectives on how the police should disclose evidence during suspect interviews. Recall that psychologists advocate the usage of strategic evidence disclosure in police interviews because it could help interviewers detect when suspects are lying (e.g., Hartwig et al., 2014), identify false confessions (Sellers & Kebbell, 2009), build rapport with the suspect initially (St-Yves & Meissner, 2014), remain more open-minded about the suspect's guilt (van der Sleen, 2009), and prompt more information or admissions from the suspect (Tekin et al., 2015; Walsh & Bull, 2015). Additionally, suspects might find it fairer to recount their story first before being presented with the evidence (Sellers & Kebbel, 2009). In contrast, lawyers and

criminal justice scholars argue that the police should disclose their evidence early in the interview process to make fair trial guarantees, such as the 'equality of arms' principle set out in Article 6 of the European Convention on Human Rights, effective in practice (see also Council Directive, 2012 on the right to information in criminal proceedings and Police and Criminal Evidence Act 1984, Code C, 2017). Crucially, lawyers need to know the case evidence to be able to provide adequate legal advice to suspects (Cape, 2011) and earlier evidence disclosure avoids putting pressure on suspects who already find the interview process to be an emotionally charged, stressful situation (Hodgson, 1994; Sanders et al., 2010). Moreover, strategically disclosing evidence might be inefficient as lawyers might interrupt the interview or request second interviews once evidence is disclosed (Blackstock et al., 2014; Cape, 2011; Kemp, 2010; Quinn & Jackson, 2007) and might sour relations between the interviewer and legal advisor, ultimately reducing cooperation from the suspect during the interview (McConville & Hodgson, 1993). The studies in this thesis address some of these conflicting arguments from psychology and from law regarding strategic evidence disclosure.

Chapters 4 and 5 found empirical support for most of the arguments that lawyers posit against the police strategically withholding and disclosing evidence late in the interview process. Specifically, both the survey responses from lawyers and the fieldwork in this thesis made it apparent that lawyers rely heavily upon the police's evidence when advising their clients (Sanders et al., 2010; Toney, 2001). Therefore, when the police strategically withhold their evidence, lawyers are less able to advise suspects adequately and the suspect's right to legal assistance is essentially diminished. From the defence perspective, strategic evidence disclosure interferes with a suspect's fair trial rights and prevents the defence lawyers and their clients from making informed decisions about whether and how to respond to police questions.

In contrast, from the police's perspective, strategic evidence disclosure is an investigative tool—a means to detect whether a suspect could be lying and to elicit further information from them (Hartwig et al., 2014; Tekin et al., 2015). Yet, the impact of strategic evidence disclosure on lawyers' ability to advise suspects also carries implications for the police investigation. Indeed, Chapters 4 and 5, highlighted that, as in past research, lawyers might be less likely to cooperate with the police when evidence is withheld from them (Blackstock et al., 2014; Kemp,

2010, 2013; Quinn & Jackson, 2007; Skinns, 2009). For instance, lawyers might advise their client to make no comment during the interview, they might keep interrupting the interview process when new evidence is strategically disclosed, or they might argue with the police for further evidence disclosure. Such responses from lawyers might not only make the interview process less efficient, but might also prevent the police from gaining any information from the suspect that could help progress their investigation.

Unless the police are aiming to build a case based on the suspect's silence and the possibility of adverse inferences being drawn at trial, a 'no comment' interview is undesirable and prevents two key police goals of strategic evidence disclosure from being realised: detecting a suspect's lies and gaining more information from the suspect. First, strategic evidence disclosure methods only facilitate lie detection when a suspect chooses to speak and the interviewer can compare what the suspect says with the evidence. Specifically, strategic evidence disclosure relies on verbal cues to deception, such as statement-evidence inconsistencies or within-statement inconsistencies, and the assumption that suspects will still speak during the interview in the absence of any evidence disclosure from the police. Yet, it is unlikely that a legally represented suspect will speak to the police when the police strategically disclose evidence as lawyers are likely to control the flow of information from the defence side too. Second, recent psychological research suggests that strategic evidence disclosure methods could lead guilty suspects to believe that the police have more information than they actually do and to unintentionally provide new information to the police (May et al., 2017; Tekin et al., 2015). Again, in practice, the police are less likely to gain any information, let alone new information, from a legally represented suspect when they choose to strategically withhold and disclose their evidence because lawyers might simply be less willing to cooperate with the police.

Overall, the findings of the survey and fieldwork converged with past research and provided further support for why strategic evidence disclosure, in practice where suspects might be legally represented, could be inefficient and crucially, prevent the police from both detecting lies and gaining information from the suspect during the interview. Meanwhile, for the defence side, strategic evidence disclosure could prevent suspects from receiving effective legal assistance at the police station. Ultimately, researchers developing police interviewing protocols need

to take into consideration the legal context of the interview process, in particular the increasingly active role of the lawyer at the police station, particularly in European countries, and the legal advice that they provide suspects (Council Directive, 2013 on the right of access to a lawyer in criminal proceedings).

Chapter 6 then considered the practical implications of interviewers having to generate alternative explanations of the evidence when preparing to strategically disclose evidence. Though the generation of alternative explanations of the evidence in a case could be useful for the police by highlighting new lines of investigation, could it also lead interviewers to be more open-minded about the suspect's guilt? Note that this question is relevant not only to police interviewers but to various actors within the criminal justice system who might also suffer from tunnel vision and presume that a suspect is guilty (Belloni & Hodgson, 2000; Dixon, 1999; Findley & Scott, 2006). The belief that a suspect is guilty can have far-reaching consequences within the criminal justice system. Highly trained police investigators and forensic examiners may evaluate evidence according to their beliefs about a person's guilt (Charman et al., 2017; Dror et al., 2006; Dror & Hampikian, 2011; Kassin et al., 2013). Moreover, research shows that mock interviewers who believe a suspect to be guilty are more likely to use coercive interview questions and elicit false confessions from innocent suspects (Hill et al., 2008; Kassin et al., 2003; Narchet et al., 2011). Past research is unclear as to whether generating alternative explanations could help interviewers be more open-minded about the suspect's guilt (Ask & Granhag, 2005; O'Brien, 2009). The three experiments in Chapter 6 suggest that interviewers who prepare interview questions about alternative evidential explanations are unlikely to change their beliefs about a suspect's guilt—regardless of the strength of the case against the suspect and the number of alternative explanations that they generate. Put simply, though interviewers following the SUE protocol must consider all possible alternative explanations of the evidence, currently there is no empirical evidence to suggest that this will produce fewer guilt-presumptive interviewers and consequently, fairer treatment of suspects during the interview.

Finally, the experiments in Chapter 7 demonstrate further empirical support for psychologists' key argument in favour of strategic evidence disclosure: it helps interviewers detect a suspect's lies (Clemens et al., 2011; Hartwig et al., 2005, 2006; Luke et al., 2016). Crucially, unlike past strategic evidence disclosure research, the

experiments in Chapter 7 introduced a forensically realistic time delay of two months between the crime and questioning of the suspect and yet, there was still a large difference between the amount of statement-evidence inconsistencies made by truth-tellers and liars. Put another way, lying suspects overall contradicted the evidence more than did truthful suspects and thus, suspects' statement-evidence inconsistencies emerged as a diagnostic cue to deception even two months after the crime. Given that laypeople rated liars' responses as more deceptive than truth-tellers' responses, likely relying upon suspects' contradictions with the evidence, strategic evidence disclosure might assist the police in detecting whether a suspect is lying even a few weeks or months after a crime. Indeed, after an extended time delay, strategic evidence disclosure might be more effective in lie detection than lie detection techniques that rely upon the number of details suspects report because the latter become less diagnostic of deception as truthful suspects forget specific details over time (Harvey et al., 2017).

Of course, the critical caveat is that even truthful mock suspects in Experiment 4 forgot some precise details of their activity and contradicted individual pieces of evidence at surprisingly high rates. Thus, it might be less diagnostic for the police to rely upon individual contradictions of the evidence when detecting deception via strategic evidence disclosure protocols. While Chapter 7 looked specifically at the influence of a time delay on the effectiveness of strategic evidence disclosure methods in lie detection, the experiments highlighted that truthful suspects could also contradict the evidence for reasons other than forgetting, such as a failure to encode or notice something at the time of the crime. It is well-documented that people can fail to notice and later recall objects and events that are irrelevant to their current activity (Harvey et al., 2017; Rees et al., 1999; Simons & Chabris, 1999). Given the dangers and consequences of mistaking a truthful suspect for a deceptive suspect, the police must exercise caution when considering individual statement-evidence inconsistencies and determining whether they actually indicate deception on the part of the suspect.

Taken together, these studies carry mixed practical implications. On the one hand, the survey and fieldwork (Chapters 4 and 5) support many of lawyers' arguments against using strategic evidence disclosure in suspect interviews and Chapter 6's experiments suggest that interviewers preparing strategic evidence disclosure are unlikely to be less guilt-presumptive regarding the suspect. On the

other hand, the mock-crime experiments (Chapter 7) suggest that strategic evidence disclosure could be as useful a lie detection tool for the police when they question a suspect two months after a crime has occurred as when they question a suspect immediately after the crime has occurred. Of course, even if strategic evidence disclosure has the potential to draw out verbal cues to deception months after a crime, in practice, it might impinge upon suspects' legal rights and lawyers might advise suspects not to speak to the police at all during the interview. Instead, the police could hold back only specific details of the evidence or a single piece of evidence, as they did during the field observations (Chapter 4)—a level of disclosure that some lawyers find sufficient to advise their clients effectively (Chapter 5). However, the suspect's contradictions of the individual piece of evidence might not be indicative of deception as even truthful suspects can accidentally contradict a single piece of evidence (Chapter 7). These mixed practical implications highlight the importance of an interdisciplinary approach when investigating an applied issue such as the strategic disclosure of evidence during police interviews. For instance, recommendations about interviewing techniques and corresponding suspect behaviours made by psychological research may be theoretically sound but might not translate effectively to practice without consideration of the legal context within which suspects are questioned. In practice, suspects might have lawyers present or the police might only question suspects months after a crime—both important considerations, the former of which is likely to limit the ability of police interviewers to detect lies using strategic evidence disclosure.

In sum, to make an interviewing technique such as the strategic disclosure of evidence effective in practice, researchers need to consider both the police's goals in eliciting useful information, or improving the diagnosticity of the police interview which is what psychological research aims for, as well as upholding suspect's legal rights in practice which criminal justice scholars focus on. These different goals are crucial given that strategically disclosing evidence during suspect interviews carries implications for not only the police, but also suspects and their lawyers. While past psychological research has already examined the effectiveness of strategic evidence disclosure in lie detection with different populations (e.g., Clemens et al., 2010; Hartwig et al., 2006) and different crime scenarios (Clemens et al., 2011; Dando et al., 2013; Granhag et al., 2015), research on this topic is still a work in progress (Hartwig et al., 2014). Thus, this thesis has built on both the existing psychological

and legal literatures and made some advances in better understanding the broader implications of strategically disclosing evidence in suspect interviews. Nonetheless, many empirical questions arise from both the current research and psychologists' and lawyers' conflicting arguments regarding police disclosure of evidence.

Future Research

Each study in this thesis raises matters for future research. Chapter 4 provides insights into police disclosure practices with legally represented suspects, but future research could explore whether the police are more strategic when disclosing evidence during interviews with legally unrepresented suspects or in particular offence categories. The formal pre-interview disclosure briefing occurs between only the police and suspect's legal representative and only in exceptional cases do the police disclose evidence directly to the suspect before the interview (see Chapter 4). Thus, when interviewing legally unrepresented suspects, the police might choose to disclose their evidence at any stage during the interview or not at all during that particular interview. Based on lawyers' comments from the field study, the police's disclosure strategy might also depend on the seriousness of the case. For instance, the police might only prepare to strategically withhold and disclose multiple pieces of evidence for suspect interviews regarding serious crimes such as rape. A large scale field study could explore more thoroughly the factors that influence police disclosure practices with both legally represented and unrepresented suspects.

Chapter 5 examines lawyers' advice to suspects when given all of the evidence either before or during the interview. Future research could investigate how other evidence disclosure methods impact custodial legal advice, for instance, when the police disclose some evidence before the interview and the remaining evidence during the interview. Similar to police disclosure practices observed in Chapter 4's field study, the police might only withhold specific details of the evidence from the suspect and lawyer until the interview. Future research could examine to what extent lawyers can advise their clients effectively and are cooperative with the police when they are given a general overview of the case evidence before the interview and then informed of the specific details of the evidence only during the interview.

Chapter 6 examined how laypeople judge a suspect's guilt after generating alternative explanations for evidence in fictional criminal cases. While generating alternatives has been shown to reduce cognitive biases in non-forensic domains (e.g., Mussweiler et al., 2000; Sanna et al., 2002), the precise psychological mechanisms

underlying this debiasing effect remain unclear. Research has highlighted, however, that the ease with which people generate alternatives can moderate the debiasing effect (Sanna & Schwarz, 2006; Sanna et al., 2002). Thus, future research could ask police interviewers to generate alternative explanations for a real criminal case that contains both incriminating and exculpatory evidence regarding the prime suspect making it easier for interviewers to imagine entirely different scenarios in which the suspect is innocent.

Chapter 7 tested the potential for interviewers using strategic evidence disclosure methods to detect lies when both truthful and lying suspects are questioned months after a crime in a real-world location—the University bookshop. A visit to the University bookshop, however, might have been easy to recall for truthful suspects, even months later, given that many research subjects reported that they had never before visited the bookshop as part of a research study. Future research could test the generalizability of the study's findings to the various situations truthful suspects might need to recall at interview by conducting similar mock-crime experiments in both memorable and mundane locations. Given that Experiment 4 was the first empirical test of an extended time delay on the diagnostic utility of statement-evidence inconsistencies as a cue to deception, further experiments are required to identify the time delays after which strategic evidence disclosure might no longer help distinguish between truthful and deceptive suspects. Moreover, Experiment 5 asked laypeople to judge truthful and deceptive responses while unaware of the time delay between the questioning of the suspect and the crime. It would be useful for future research to explore whether knowledge of this time delay leads people to adjust their deception judgements of suspects by taking into account how time delay can impact truthful suspects' memories and thus, their propensity to make statement-evidence inconsistencies.

Aside from the research questions that arise from studies in this thesis, there are still empirical questions raised by psychologists' and lawyers' contrasting arguments regarding strategic evidence disclosure in suspect interviews. First, how does the timing of evidence disclosure impact police-suspect relations? Psychology research suggests that disclosing evidence to the suspect may interfere with rapport-building (Goodman-Delahunty et al., 2014). For this reason, the police may choose to initially build rapport with the suspect and then strategically disclose the evidence later in the interview. However, legal research, including the fieldwork and survey in

this thesis, indicates that when the police strategically disclose evidence, there is greater tension between the lawyer and police interviewer, and consequently the suspect and police interviewer too (e.g., Kemp, 2013; McConville & Hodgson, 1993). Thus, more research is needed to advance our understanding on when evidence should be disclosed for improved police-suspect relations, which in turn could increase the amount of information that the suspect is willing to provide to the police. Future research should also take into account the role of the suspect's lawyer before and during the police interview as the presence of the lawyer is likely to moderate the impact of strategic evidence disclosure on police-suspect relations.

Second, how do suspects perceive the strategic disclosure of evidence? Some psychologists claim, for instance, that suspects might find it fairer to offer their side of the story first before being presented with the evidence (Sellers & Kebbell, 2009). Meanwhile some lawyers argue that when the police strategically disclose evidence, suspects feel ambushed with the evidence and consequently find the interview more stressful (see Chapter 5). Once again, how the suspect perceives the police's disclosure of evidence could influence the suspect's willingness and ability to provide an accurate account of what transpired. The question of how suspects regard strategic evidence disclosure would benefit from field research with police interviewers and suspects because it may not be possible to recreate the high stakes of a police interview, one that involves the strategic disclosure of evidence, in the laboratory.

More generally, psychological research focused on diagnostic lie detection methods and police interviewing techniques could benefit from a greater consideration of existing criminal justice research and the legal context within which the police detain and question suspects. Indeed, future interdisciplinary psychology-law research efforts could explore criminal justice scholars' concerns regarding other police interviewing techniques that are based on psychological principles. Such interdisciplinary efforts could also identify interviewing techniques that are most effective in practice, in a similar fashion to the collaboration between psychologists, lawyers, and police practitioners that led to the development of the PEACE model in England and Wales (Kassin, Appleby, & Perillo, 2010).

Concluding Remarks

This thesis aimed to explore the broader implications of strategically disclosing evidence in police interviews with suspects. Through a series of

interdisciplinary studies, this research programme highlighted that strategic evidence disclosure could prevent lawyers from advising custodial clients effectively, make the interview process less efficient, lead the police to gain less information from the suspect, plausibly have no influence on interviewers' pre-interview beliefs about the suspect's guilt, but could help interviewers detect a suspect's lies even if the interview takes places months after the crime. Bringing together the arguments and research traditions of two disciplines such as psychology and law might be challenging, but ultimately, such interdisciplinary efforts might be the most useful when informing policy and practice on a topic such as the strategic disclosure of evidence.

Chapter 9:
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Appendices

Appendix A: Main Analyses with Excluded Subjects from Chapter 6

Experiment 2

Here I present the results of all the main analyses when including the eight subjects who did not produce alternative questions for one or more of the cases despite being in the alternative questions condition. Including these subjects led to a total sample size of 148 subjects: 47 control, 53 suspect questions, and 48 alternative questions subjects. Overall, the same pattern of results emerged when including these eight subjects.

Comparing conditions. Subjects made similar judgments about the case regardless of which condition they were in, see Figure A.1. For each case, a MANOVA was run for subjects' ratings of guilt, confidence, and evidence strength. Between conditions, subjects did not differ on any measure for the murder, arson, and criminal damage cases, Pillai's trace = .047, $F(6, 288) = 1.17$, $p = .324$, $\eta_p^2 = .024$; Pillai's trace = .006, $F(6, 288) = .14$, $p = .991$, $\eta_p^2 = .003$; Pillai's trace = .029, $F(6, 288) = .71$, $p = .646$, $\eta_p^2 = .014$, respectively.
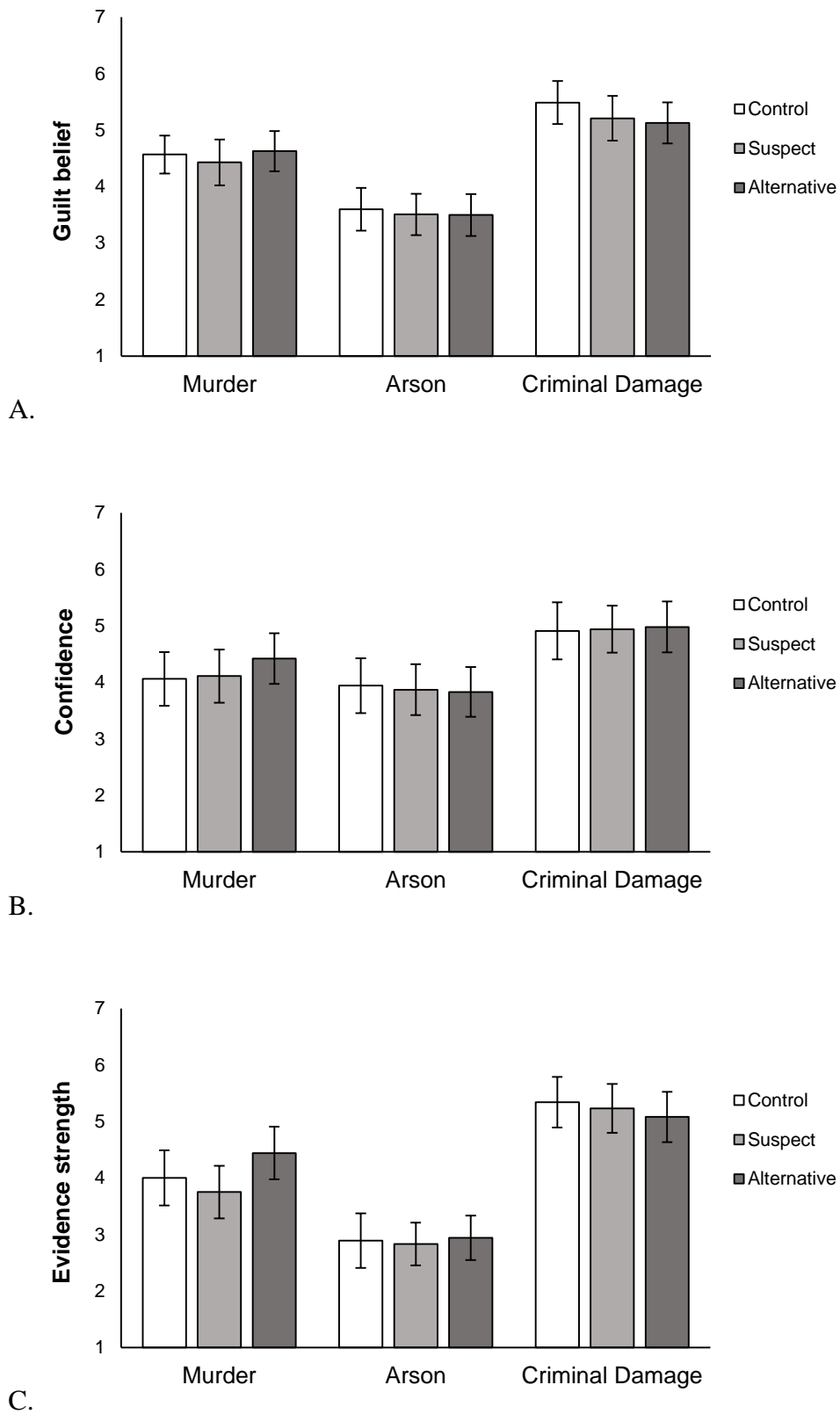
Figure A.1. Subjects' mean ratings of (A) their belief in suspect's guilt, (B) their confidence, and (C) evidence strength when including all subjects in Experiment 2. Error bars represent 95% confidence intervals.

Comparing cases. Like in the main analysis, subjects found the criminal damage case to be the strongest, followed by the murder case, and then the arson case. Repeated-measures ANOVAs showed that subjects' ratings for all three measures differed between cases, Guilt, $F(2, 294) = 95.52$, $\eta_p^2 = .394$; Confidence, $F(2, 294) = 33.90$, $\eta_p^2 = .187$; Evidence strength, $F(2, 294) = 111.98$, $\eta_p^2 = .432$, all ps < .001. Pairwise comparisons were run for all three measures with the Bonferroni corrected critical p-value of .017. Guilt ratings for all three cases were significantly different from each other, $M_{mur} = 4.54$ $SD_{mur} = 1.29$; $M_{arso} = 3.53$, $SD_{arso} = 1.30$; $M_{crim} = 5.27$, $SD_{crim} = 1.33$, ps < .001. Confidence ratings for the criminal damage case, $M = 4.95$, $SD = 1.58$, were significantly higher than confidence ratings for both the arson case, $M = 3.88$, $SD = 1.60$, and murder case, $M = 4.20$, $SD = 1.63$, ps < .001. Unlike in the main analysis, subjects made slightly higher confidence ratings for the murder case than the arson case, $p = .013$. Evidence strength ratings were significantly different from each other for all three cases, $M_{mur} = 4.05$, $SD_{mur} = 1.67$; $M_{arso} = 2.89$; $SD_{arso} = 1.45$; $M_{crim} = 5.22$, $SD_{crim} = 1.51$, ps < .001. There were no interaction effects between condition and case for guilt, confidence, and evidence strength, ps = .734, .707, and .226 respectively.

Difficulty ratings. As shown in Figure A.2, subjects found the control task the easiest for all three cases. For the murder and criminal damage cases, subjects found the suspect questions task harder, followed by the alternative questions task. For the arson case, subjects found the suspect questions and alternative questions tasks to be similarly difficult. Case type and condition had an interactive effect on subjects' perceptions of task difficulty, $F(4, 290) = 7.19$, $p < .001$, $\eta_p^2 = .090$. Between-subject ANOVAs showed that for all three cases, subjects' ratings of difficulty differed between conditions, ps < .001. Post-hoc Tukey tests showed that for the murder and criminal damage cases, subjects found the control task easier than the suspect question task, $M_{diff} = 1.18$ [95% CI: 0.53, 1.83]; $M_{diff} = 1.31$ [95% CI: 0.65, 1.98] respectively, ps < .001. Subjects also found the control task easier than the alternative questions task, $M_{diff} = 2.26$ [95% CI: 1.60, 2.93]; $M_{diff} = 2.08$ [95% CI: 1.40, 2.76], ps < .001. Finally, subjects found the suspect questions task easier than the alternative questions task, $M_{diff} = 1.08$ [95% CI: 0.44, 1.73], $p < .001$; $M_{diff} = 0.77$ [95% CI: 0.10, 1.43], $p = .019$. For the arson case, subjects found the control task easier than the suspect task, $M_{diff} = 1.72$ [95% CI: 1.06, 2.38], and alternative

questions task, $M_{diff} = 1.41$ [95% CI: 0.74, 2.09], ps < .001, but found the suspect and alternative questions tasks similarly difficult, $p = .498$.
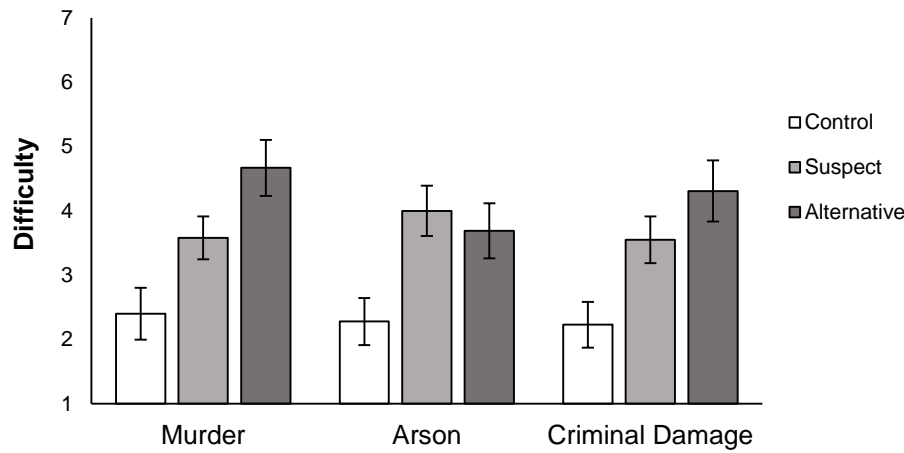

Figure A.2. Subjects' mean difficulty ratings when including all subjects in Experiment 2. Error bars represent 95% confidence intervals.

Experiment 3

Here I present the results of all the main analyses when including the 52 subjects who failed to follow instructions and produce either one alternative question in the single alternative condition or multiple alternative questions in the multiple alternatives condition. Including these subjects led to a total sample size of 218 subjects: 60 control, 78 single alternative, and 80 multiple alternatives subjects. A similar pattern of results emerged when including these 52 subjects.

Difficulty ratings. As shown in Figure A.3, subjects found the task similarly difficult for the murder case regardless of condition. In contrast, for the arson case, subjects found the control task easiest, followed by the single alternative and multiple alternatives tasks in order of increasing difficulty. Case and condition had an interactive effect on subjects' ratings of task difficulty, $F(2, 215) = 48.22$, $p <$ .001, $\eta_p^2 = .310$. For the murder case, unlike in the main analysis, subjects' difficulty ratings did not differ between conditions, $F(2, 215) = 1.79$, $p = .169$, $\eta_p^2 = .016$. For the arson case, subjects' difficulty ratings differed between conditions, $F(2, 215) = 83.51$, $p < .001$, $\eta_p^2 = .437$. Post-hoc Tukey tests showed that control subjects found their task easier than did subjects in the single alternative condition, $M_{diff} = 2.54$ [95% CI: 1.90, 3.18], and the multiple alternatives condition, $M_{diff} = 3.40$ [95% CI: 2.76, 4.03], ps < .001. Crucially, subjects found thinking of a single alternative

question easier than thinking of multiple alternative questions, $M_{diff} = 0.85$ [95% CI: 0.26, 1.44], $p = .002$.

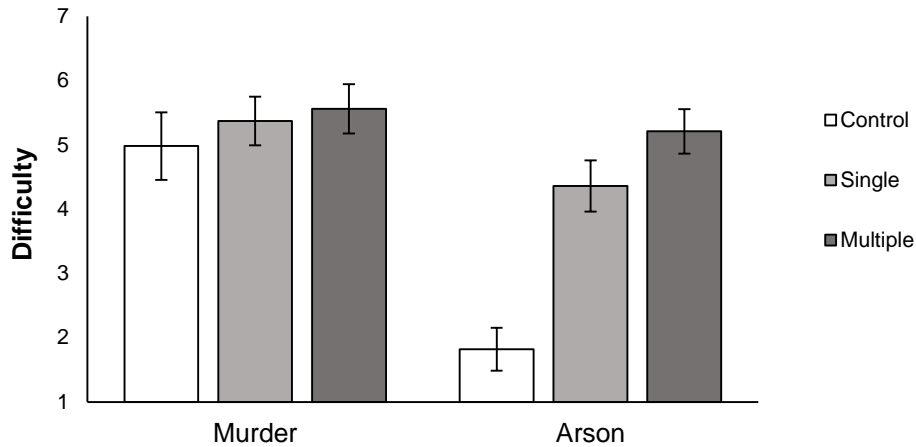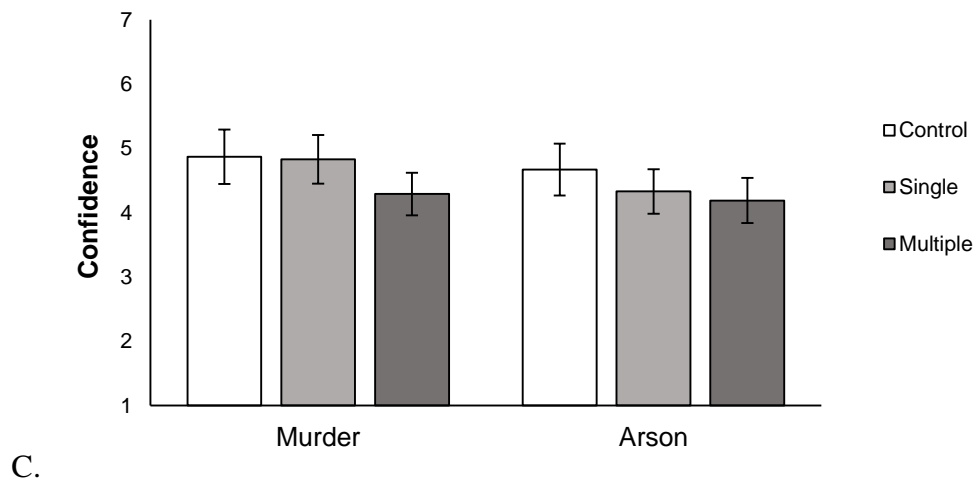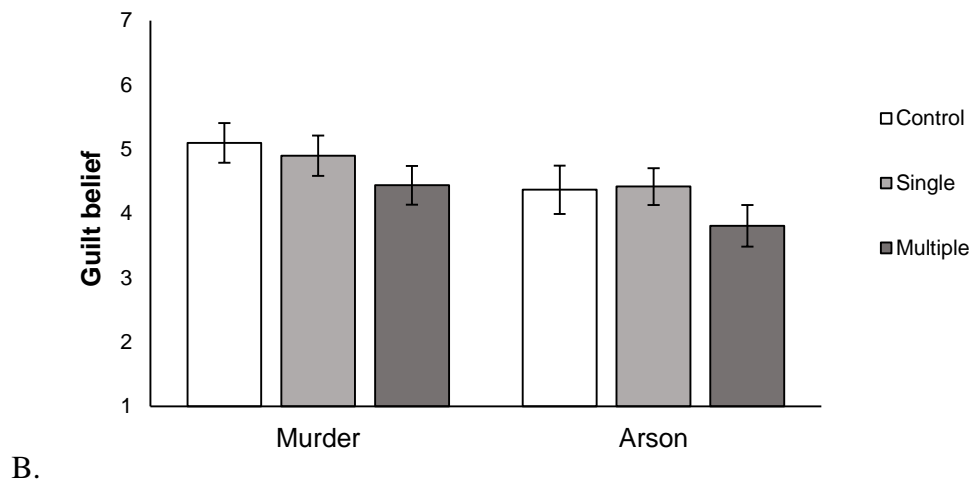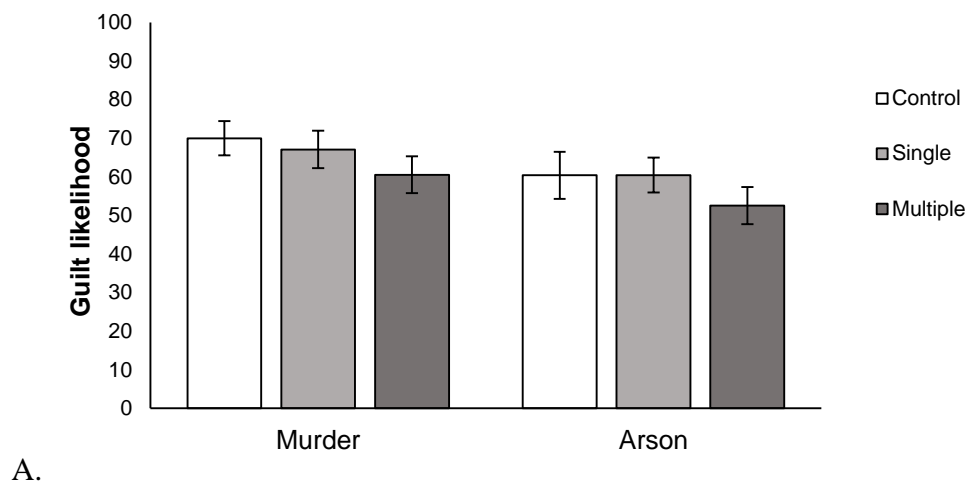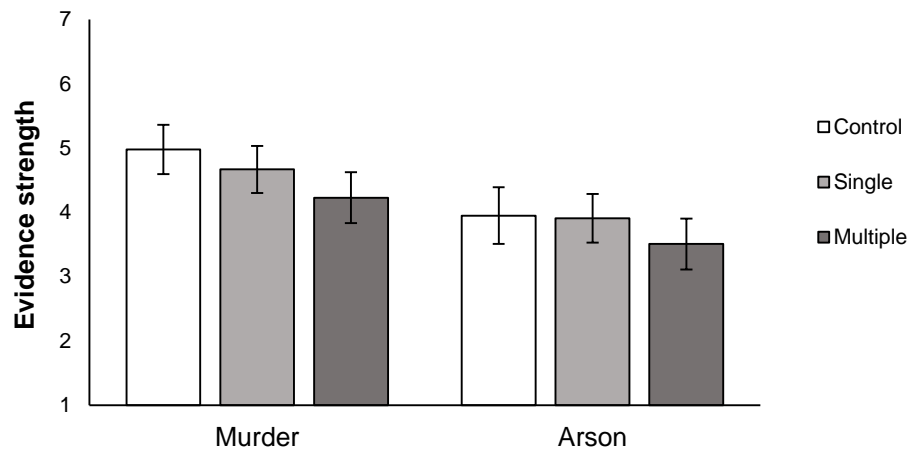*Figure A.3.* Subjects' mean difficulty ratings when including all subjects in Experiment 3. Error bars represent 95% confidence intervals.

Comparing conditions. The analysis showed no effect of generating alternatives on subjects' judgments about both the murder and arson cases. Subjects rated the likelihood of the suspect's guilt, their belief in the suspects' guilt, their confidence, and the evidential strength similarly across conditions, see Figure A.4. For the murder case, like in the main analysis, a MANOVA suggested that subjects' ratings of guilt likelihood, guilt belief, confidence, and evidence strength did not differ between conditions, Pillai's trace $= .052$, $F(8, 426) = 1.42$, $p = .187$, $\eta_p^2 = .026$. For the arson case, unlike in the main analysis, a MANOVA suggested that subjects' ratings of their belief in the suspect's guilt, likelihood of the suspect's guilt, their confidence, and evidence strength also did not differ between conditions, Pillai's trace $= .058$, $F(8, 426) = 1.59$, $p = .127$, $\eta_p^2 = .029$.

A.

B.

C.

D.

Figure A.4. Subjects' mean ratings of (A) the likelihood that the suspect is guilty, (B) belief in suspect's guilt, (C) their confidence, and (D) evidence strength when including all subjects in Experiment 3. Error bars represent 95% confidence intervals.

Comparing cases. Like in the main analysis, subjects perceived the murder case to be stronger than the arson case, see Table A.1. There were no interaction effects of case and condition on subjects' guilt likelihood, guilt belief, confidence, and evidence strength ratings, ps = .756, .608, .235, and .604 respectively.

Table A.1

All subjects' judgments of the murder and arson cases

Measure	Means for murder case (SD)	Means for arson case (SD)	Mean difference [95% CIs]	t
Guilt likelihood	65.50 (20.63)	57.54 (21.89)	7.96 [4.91, 11.01]	$t(217) = -5.15$**
Belief in guilt	4.78 (1.35)	4.18 (1.42)	0.60 [0.40, 0.81]	$t(217) = -5.80$**
Confidence	4.64 (1.62)	4.37 (1.57)	0.27 [0.07, 0.47]	$t(217) = -2.63$*
Evidence strength	4.59 (1.67)	3.78 (1.72)	0.82 [0.55, 1.08]	$t(217) = -6.10$**

Note. * p = .009; ** p < .001.

Like in the main text, I looked at the size of the difference between the guilt belief ratings made by the control and alternative (or 'multiple alternatives' group in Experiment 3) groups in each experiment when including subjects who did not follow instructions in Experiments 2 and 3. A random-effects model meta-analysis was run using ESCI software (Cumming, 2013) and Figure A.5 shows the resultant forest plot. The meta-analytic result showed that the alternative group made guilt belief ratings that were an estimated 0.12 units [95% CI: –0.68, 0.45] lower than the control group, $z = -0.401$, $p = .688$. 0.12 units on the 1–7 guilt belief scale translates to a 1.92% reduction in guilt belief ratings for the alternative group. Thus, even when including subjects who did not follow instructions, there was only a small difference between the alternative and control groups' judgments about the suspect's guilt. Moreover, given that the confidence intervals once again include zero, there is plausibly no difference between the alternative and control groups' guilt beliefs about the suspect.
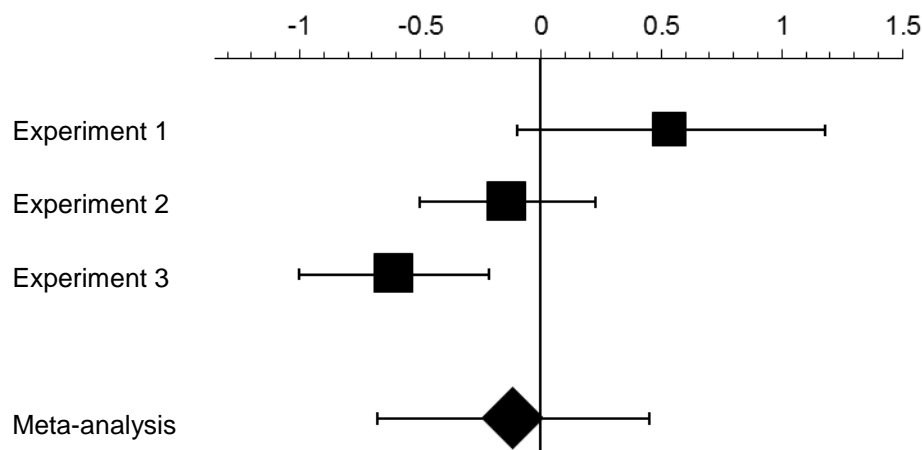

Figure A.5. Forest plot displaying mean differences in guilt belief ratings between the control and alternative groups in Experiments 1–3 when including subjects who did not follow instructions. The mean difference between the two groups in each experiment is indicated by the location of the square on the horizontal axis. The size of the square indicates how the study was weighted in the meta-analysis. Studies

with larger squares had a bigger sample size and a smaller standard deviation and thus, a higher weighting in the meta-analysis. The meta-analytic result is represented by the diamond. When the symbol is to the right of the zero line, the alternative group was more likely to believe the suspect was guilty compared to the control group. When the symbol is to the left of the zero line, the alternative group was less likely to believe the suspect was guilty compared to the control group. Error bars represent 95% confidence intervals.

Appendix C: Time Delays Used in Published Studies of Strategic Evidence Disclosure

Table C.1

Time delay between mock crime and interview in published studies of strategic evidence disclosure

Study	Time delay
Clemens et al. (2010)	Immediately after
Clemens, Granhag, & Strömwall (2011)	Immediately after
Dando & Bull (2011)	1 hour
Dando, Bull, Ormerod, & Sandham (2013)	45 minutes
Granhag, Rangmar, & Strömwall (2014)	Immediately after
Granhag, Strömwall, Willen, & Hartwig (2013)	Immediately after
Hartwig et al. (2011)	10 minutes
Hartwig, Granhag, & Strömwall (2007)	Immediately after
Hartwig, Granhag, Strömwall, & Kronkvist (2006)	Immediately after
Hartwig, Granhag, Strömwall, & Vrij (2005)	1 week
Jordan, Hartwig, Wallace, Dawson, & Xhihani (2012)	Immediately after
Lingwood & Bull (2013)	Immediately after
Luke et al. (2013)	Immediately after
Luke et al. (2016)	Immediately after
Luke, Dawson, Hartwig, & Granhag (2014)	Immediately after
Luke, Hartwig, Shamash, & Granhag (2016)	Immediately after
May, Granhag, & Tekin (2017)	Immediately after
McDougall & Bull (2015)	7–10 days
Sorochinski et al. (2014)	Immediately after
Tekin et al. (2015)	Immediately after
Tekin, Granhag, Strömwall, & Vrij (2016)	Immediately after
Wachi et al. (2017)	Immediately after

Note. Some studies gave subjects a few minutes to prepare for the interview.