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### Title

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### Permalink

<https://escholarship.org/uc/item/48p7n1zr>

### Journal

Behavioral Sciences & the Law, 35(1)

### ISSN

0735-3936

### Authors

Crozier, William E  
Strange, Deryn  
Loftus, Elizabeth F

### Publication Date

2017

### DOI

10.1002/bsl.2273

Peer reviewed

## Memory Errors in Alibi Generation: How an Alibi Can Turn Against Us

William E. Crozier<sup>†,‡</sup>, Deryn Strange\* and Elizabeth F. Loftus<sup>§</sup>

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**Alibis play a critical role in the criminal justice system. Yet research on the process of alibi generation and evaluation is still nascent. Indeed, similar to other widely investigated psychological phenomena in the legal system – such as false confessions, historical claims of abuse, and eyewitness memory – the basic assumptions underlying alibi generation and evaluation require closer empirical scrutiny. To date, the majority of alibi research investigates the social psychological aspects of the process. We argue that applying our understanding of basic human memory is critical to a complete understanding of the alibi process. Specifically, we challenge the use of alibi inconsistency as an indication of guilt by outlining the “cascading effects” that can put innocents at risk for conviction. We discuss how normal encoding and storage processes can pose problems at retrieval, particularly for innocent suspects that can result in alibi inconsistencies over time. Those inconsistencies are typically misunderstood as intentional deception, first by law enforcement, affecting the investigation, then by prosecutors affecting prosecution decisions, and finally by juries, ultimately affecting guilt judgments. Put differently, despite the universal nature of memory inconsistencies, a single error can produce a cascading effect, rendering an innocent individual’s alibi, ironically, proof of guilt. Copyright © 2017 John Wiley & Sons, Ltd.**

When people are accused of a crime, their opportunity to provide an alibi is an essential part of the investigation. After all, if they can show that they could not have committed the crime – because they can prove their location, timing, or activity was different – they should be dismissed as a possible suspect. In some cases, however, they are not “off the hook” – they can still be charged with the crime and their alibi becomes their legal defense (Nolan, 1990). In a review of the 347 (as of 17 November 2016) Innocence Project DNA exoneration cases, a large number of defendants who were wrongfully convicted presented an alibi at trial, and some – such as Steven Avery, Raymond Towler, Edward Honaker, and Frank Sterling – had multiple witnesses and evidence to buttress that alibi (Burke, Turtle, & Olson, 2007; [www.innocenceproject.org/cases](http://www.innocenceproject.org/cases)). Others, such as Angel Gonzalez and John Kenneth Watkins, never had their alibi investigated. Thus police, prosecutors, jurors and judges dismissed their alibis as evidence of innocence. One takeaway from these cases is that some people are

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\* Correspondence to: Deryn Strange, John Jay College of Criminal Justice, City University of New York, NY, USA. E-mail: [dstrange@jjay.cuny.edu](mailto:dstrange@jjay.cuny.edu)

<sup>†</sup>John Jay College of Criminal Justice, City University of New York, NY, USA

<sup>‡</sup>The Graduate Center, City University of New York, New York, NY, USA

<sup>§</sup>Psychology & Social Behavior, University of California, Irvine, CA, USA

convicted of crimes in spite of their alibis. But what if, in some cases, people are convicted *because* of their alibi?

Empirical research on alibis is a nascent, but growing, field. Unfortunately, the more we learn through psychological research, the more it seems our intuitive understanding of how a person constructs an alibi, and how we should evaluate it, is misguided. Of course, psychological research overturning enduring yet incorrectly held beliefs about legal issues is not a new phenomenon; research on eyewitness memory (e.g. National Academy of Sciences, 2014; Wells *et al.*, 1998), recovered memories of childhood sexual abuse (Loftus & Ketcham, 1994), interrogation strategies (Hartwig, Granhag, Strömwall, & Kronkvist, 2006), lie detection ability (Hartwig & Bond, 2011) and false confessions (Kassin *et al.*, 2010) has revolutionized our understanding of such issues. While more research is clearly needed regarding alibis, our existing understanding of general memory processes provides ample evidence that, as Olson and Charman (2012) put it, alibis can put innocents at risk for wrongful conviction.

At its most basic level, alibi generation is a memory test: we must have some memory for the time in question (encoding phase) to be able to recall that information later when asked by the police (retrieval phase). The problem we explore here is that many of our expectations regarding the process of how we provide an alibi are not consistent with what we know about how our memory system works. Although experts have long accepted that memory is reconstructive and thus prone to error (Bartlett & Burt, 1933; Bransford & Johnson, 1972; Loftus, 1996; Neisser, 1982), the majority of laypeople – 63% – still endorse the idea that memory works like a video camera, “accurately recording the events we see and hear so we can review and inspect them later” (Simons & Chabris, 2011, p. 3). Relatedly, many laypeople incorrectly believe that inconsistencies and inaccuracies indicate a person is, at best, globally inaccurate in his or her memory (e.g., Fisher, Brewer, & Mitchell, 2009), or at worst, lying. Indeed, the interrogation manual known as the “Reid Technique” (Inbau, Reid, Buckley, & Jayne, 2013) *teaches* that inconsistencies are likely to mean a suspect is lying. Those inconsistencies, or lack of detail for a useful alibi, can result in a number of cascading direct and indirect threats to an innocent’s chance for justice.

## **MEMORY – EVEN APPLIED TO THE LEGAL SYSTEM – IS FALLIBLE**

Alibis are not the only ecological memory tests in psychology and law. In fact, eyewitness memory has been studied for over 30 years (e.g., Loftus & Palmer, 1974). Simply put, witnesses to a crime often make errors on their memory tests (i.e., when police ask them to report what they saw). Indeed, the Innocence Project has implicated faulty eyewitness testimony in more than 70% of their DNA-supported wrongful convictions ([www.innocenceproject.org/causes/eyewitness-identification/](http://www.innocenceproject.org/causes/eyewitness-identification/)). Although eyewitnesses make these mistakes for a variety of reasons (Wells, Memon, & Penrod, 2006), the overarching point is that these ecological memory tests are relatively easy to fail because our memory system does not record an exact replica of every experience (Newman & Lindsay, 2009). Thus we are left prone to intentional and unintentional suggestive influences.

Like alibi errors, people have been slow to accept that eyewitness memory errors are normal. Broadly speaking, people fail to appreciate the frequency of, and causes of, eyewitness memory inconsistencies. For example, Berman and colleagues (Berman & Cutler, 1996; Berman, Narby, & Cutler, 1995) found that when an eyewitness's testimony contained inconsistencies regarding their memory for an event, jurors found the witness less credible – and yet, research does not support this conclusion. Such inconsistencies vary widely in how and why they occur: for example, a person could report a detail inaccurately from the beginning of their questioning, change a detail at a later retelling (i.e., a contradiction), or report a new detail later that was not remembered earlier (i.e., reminiscence). Eyewitness research has explored the extent to which these types of inconsistency are indicative of inaccuracy, and has found little support for their predictive utility.

For example, Fisher et al. (2009) found that lawyers, judges, and jurors all tend to presume that if an eyewitness is wrong about one detail, their entire story cannot be trusted. However, they did not find a direct relationship between consistency and accuracy. To clarify, Fisher et al. distinguished between witnesses who had contradicting details in their report or reminiscent details. In both cases, they found people were no less accurate in their overall memory than their consistent counterparts (although the authors note that the accuracy of contradictory details was low). Further research has replicated and extended these findings. For example, reminiscent details can be highly accurate (e.g., Krix, Sauerland, Lorei, & Rispens, 2015; Oeberst, 2012). Importantly, such research has also underlined the disconnect between people's expectations of and the reality of inconsistencies' correlation with accuracy. Both laypeople and experienced police officers expected inconsistent details to be unreliable; however, the new details tended to be as accurate as details that were recalled on the first telling (Krix et al., 2015; Oeberst, 2012). Thus, as Fisher et al. (2009) conclude in their comprehensive review of the topic, inconsistency is not necessarily indicative of accuracy.

If the legal system has been slow to accept that errors are normal in eyewitness accounts, it should be no surprise that it has failed to recognize the applicability of memory errors to an innocent suspect's alibi. Indeed, an eyewitness tends to have some memorial advantages over someone providing an alibi. For example, at some point during an event, an eyewitness may become aware that they are witnessing a crime. By contrast, an innocent suspect, when asked to provide their alibi, must describe a non-crime event they may not have paid much attention to and may, therefore, recall little about. In addition, eyewitnesses are likely to be interviewed more quickly than a suspect, and thus the innocent suspect's memory for their alibi may deteriorate further. Moreover, alibis are probably more vulnerable to perceived inconsistencies in the courtroom. If an attorney has an inconsistent eyewitness, they can choose to not call that witness if they have other evidence; however, an alibi may be a defendant's best evidence and offering it may be their only option. And whereas an eyewitness who is not believed merely does nothing to help their case, disbelieved alibi testimony can lead to a guilty verdict. Indeed, we see how difficult and potentially problematic the alibi as a memory test can be in one of the most famous cases of wrongful eyewitness identification. When Ronald Cotton was arrested for the sexual assault of Jennifer Thompson, he quickly explained that he had been with his friends when the crime was committed. However, when no one corroborated his story, he realized his mistake: he had remembered the incorrect weekend. Thus, even though he was innocent – he was later

exonerated after DNA testing – his alibi became ineffective, and probably appeared dishonest to the police (Thompson-Cannino, Cotton, & Torneo, 2009).

In the sections that follow, we draw on basic memory research to show how typical memory errors can produce cascading direct and indirect effects when applied to alibis, resulting in an innocent person having their alibi dismissed or, even worse, appearing guilty.

## ALIBI GENERATION PHASE

To provide an alibi, a person must be able to recall the details of their whereabouts and activities for the time in question: an autobiographical memory. Although the need for a specific memory seems obvious, research shows that it is not always an easy task – particularly for innocent people. Simply put, we do not encode a minute-by-minute diary-like list of where we are and what we are doing throughout our day that we can access anytime thereafter (e.g., Bransford & Johnson, 1972; Loftus, 1996; Neisser, 1982). Unfortunately, as we noted earlier, the majority of laypeople (63%) still endorse the idea that human memory works like a video camera, preserving the details of our memories until we need them (Simons & Chabris, 2011, 2012). That fundamental misunderstanding about the nature of human memory poses a particular problem for an innocent person. Although events that are emotional, important or unusual are often encoded in great detail, mundane or repeated events do not have such an advantage and thus we tend to encode fewer details (Burke, Heuer, & Reisberg, 1992; Rubin, Berntsen, & Bohni, 2008). Whereas witnessing a crime may afford some encoding advantage to an eyewitness, an innocent person (unless they were doing something particularly unusual or exciting) is unlikely to have encoded the details needed for their alibi. Thus, when a police officer asks a person to account for their whereabouts during a particular time-frame, there may be a very good reason they cannot provide an answer: they do not remember.

Indeed, even if the innocent person did encode details of what they were doing at the time of the crime, there is no guarantee they will be able to produce those details when the police ask for their alibi. And there are several memory-based reasons why. First, what we do encode decays rapidly and will either be forgotten or rendered inaccessible if it is not accessed; the more time that elapses, the greater that degradation is likely to be (Ebbinghaus, 1913; Schacter, 1999). Thus, unless a person is asked about a memory that happened in the very recent past, it becomes increasingly difficult for them to be able to access the correct information, resulting in an alibi with very little useful detail. Importantly, this degradation occurs even for memories we swear we will never forget, like 9/11 (Talarico & Rubin, 2009). Moreover, *trying* to recall information may mean we recall fewer details due to retrieval-induced forgetting (RIF; Anderson, Bjork, & Bjork, 1994). RIF describes a process by which remembering one piece of information can inhibit the retrieval of other related information. Although RIF research has typically focused on memory for word-pairs, researchers have demonstrated similar effects with more applied contexts, such as eyewitness paradigms (e.g., Shaw, Bjork, & Handal, 1995) and autobiographical memories (Barnier, Hung, & Conway, 2004). For example, MacLeod (2002) found that observers demonstrated a RIF effect for a set of electronic items they saw in a house. Although it has never been directly tested, the applicability to alibi generation is obvious: by attempting to corroborate an alibi,

a person may inhibit retrieval of additional evidence. Perhaps, for example, by remembering a gas station receipt that proves their whereabouts, an innocent person might fail to recall that they also have an ATM receipt from the same location. Put differently, forensically useful information may not be reported, even though it was successfully encoded.

Second, what we do encode is easily distorted over time. For example, talking with other people (Gabbert, Memon, Allan, & Wright, 2004) or answering a police officer's questions (Luke, Crozier, & Strange, in press) can alter how we remember and report events. Moreover, if a person is exposed to incorrect information about such an event, those inaccuracies can be incorporated into memory and recalled later – a phenomenon known as the misinformation effect (Loftus, 2005; see Ayers & Reder, 1998). People may also commit a memory conjunction error (Jones & Jacoby, 2001; or “blending error”; Skagenberg & Wright, 2008) by mistakenly combining details from two separate stimuli or sources. Indeed, Odegard and Lampinen (2004) demonstrated that people can erroneously combine separate events, or even separate days, to create a single event. Although each detail is a genuine memory, the combination of those details into a single event is not and is therefore inaccurate.

Third, how people “fill in” information they do not recall by relying on what typically happens during a given time-frame can also lead to errors in alibi generation. Alibi researchers (e.g., Burke, Turtle, & Olson, 2007; Olson & Charman, 2012) have long implicated the use of schemas as the means by which many people attempt to retrieve an alibi. That is, if a person cannot recall exactly what they were doing, they may rely on what they *typically* would have been doing. However, employing scripts and schemas to recall a single event can mean that we fail to report details that depart from that schema (Lampinen, Faries, Neuschatz, & Toglia, 2000). For example, if someone were asked where they were at 9:05 am 2 weeks ago, they may conclude that they were at work as usual, failing to remember that they were running late that day, and thus were actually stuck in traffic at 9:05 am. Supporting this point, Leins and Charman (2016) found that participants who were engaging in a schema-consistent activity (attending class) were more accurate in recalling an alibi than those who were attending a schema-inconsistent research study at the time.

Regardless of the cause, these memory processes can be problematic for someone attempting to generate an alibi. If an innocent person recalls fewer details, they will also probably supply fewer pieces of corroborating evidence. Furthermore, if they supply incorrect or inconsistent details, they may be perceived as lying. Indeed, research focusing specifically on the alibi-generation process shows that retrieving information for a strong, accurate alibi is fairly difficult. Strange, Dysart, and Loftus (2014) asked participants to account for their time during a specific afternoon 3 weeks earlier, what they referred to as the Time One alibi. Then, they asked their participants to spend the next week attempting to validate their alibi before returning to the laboratory to provide that alibi again (Time Two), and producing any evidence they had found to verify their alibi. Analyses revealed that the Time One alibi contained significantly more detail than the Time Two alibi, and that the two alibis were only consistent on 53% of the details. Similarly, Olson and Charman (2012) found that after spending 48 hours fact-checking an alibi, participants amended 36% of their initial accounts, by altering either the details of the alibi or the corroborating evidence. Moreover, Leins and Charman (2016) found that the cue people use to retrieve an alibi from memory can greatly affect the accuracy. When participants were cued with a location, they were far more accurate

(45%) than when cued with the time (13%) or time *and* location (6%). This finding is particularly problematic, given that police are likely to ask for an alibi based on the time the crime was committed.

The 2000 case of Adnan Syed – the focus of immensely popular first season of the podcast *Serial* – demonstrates how difficult alibi generation can be. In the first episode, the host Sarah Koenig briefly discusses the alibi conundrum faced by Syed, the main character of the story. When Syed was arrested as a high-schooler for the murder of his ex-girlfriend, he was unable to produce an alibi for the short time period several weeks earlier during which the police believed the murder happened. Koenig points out that if Adnan is indeed innocent (which he may very well be, as he has been recently granted a retrial, due in no small part to *Serial's* showcase; Bromwich & Stack, 2016), it was just another day and therefore difficult to remember. In one quote, Adnan illustrates how his memory failed him: “There’s nothing tangible I can do to remember the day. There’s nothing I can do to make me remember.” In fact, letters from a fellow high-school student to Syed after his arrest reminded him of something he had failed to remember – that he actually had an alibi, and a witness to support it (Koenig, 2014).

In summary, the way in which we normally encode and retrieve information from memory leaves us vulnerable, typically unable to produce the type of information a good alibi would contain. The information we do retrieve from memory is likely to be incomplete and, at the very least, need minor revisions. Indeed, Strange *et al.* (2014) concluded that inconsistencies in alibis “appear to be the norm, rather than the exception” (p. 87).

## ALIBI EVALUATION PHASE

So why is an inconsistent alibi so problematic, particularly for an innocent person? Simply put, an inconsistent alibi can directly – in the absence of any other information – make a suspect appear guilty, even if the inconsistency is due to a common error in memory. It bears repeating that an alibi can be inconsistent for a variety of reasons, and why that inconsistency exists is important. For example, an alibi that contains details that contradict an earlier statement is probably less accurate (e.g., Fisher *et al.*, 2009), whereas an alibi that contains previously unreported reminiscent details is probably more accurate (e.g., Krix *et al.*, 2015; Oeberst, 2012). When assessing the veracity of an alibi, it is important not to conflate these two separate phenomena. However, we are not focusing here on assessing the truthfulness of an alibi – instead, we are interested in the *perception* of an inconsistent alibi. Regardless of the type, inconsistencies lead to a number of indirect effects that make a conviction more likely. These direct and indirect effects occur all throughout the legal process, influencing the police investigating the case, the prosecutors pursuing criminal charges, and the jurors deciding the case. Why? Because people tend to believe that when the stakes are high, motivation to remember will increase accuracy (Kassam, Gilbert, Swencionis, & Wilson, 2009). Indeed, alibis are inherently viewed with skepticism by laypeople and police officers alike (e.g., Culhane, Hosch, & Kehn, 2008a; Dysart & Strange, 2012; Olson & Wells, 2004), so much so that Sommers and Douglass (2007) speculate that merely hearing the word “alibi” might automatically make people more suspicious of a suspect. And if a person changes their alibi, the problem only magnifies.

For example, Culhane et al. (2008b) found that 90% of college student participants believed a suspect was lying if they changed their story after a police interview and Culhane and Hosch (2012) nicely demonstrated people's preference for alibi consistency. They asked college students and law enforcement officers to rate the believability of a series of alibis on a 1–9 Likert scale (1 = very poor, 9 = very good). Participants rated an alibi that did not change ( $M = 6.59$ ) as more believable than an alibi that changed to become stronger ( $M = 3.18$ ) or changed to become weaker ( $M = 3.01$ ).

Indeed, further demonstrating people's intolerance for memory errors, Nieuwkamp, Horselenberg and Van Koppen (2016) found that people were more tolerant of a person changing their alibi because they *lied* the first time – to cover up the fact they were doing something salacious – than merely because they made a mistake.

Taken together then, a person with an inconsistent alibi is likely to be seen as guilty by police. Indeed, interview and interrogation techniques, such as the widely used Reid Technique, teach that inconsistencies can be indicative of guilt (Inbau et al., 2013). Ironically, in a 2003 meta-analysis of cues to deception, DePaulo et al. (2003) found that liars are less likely to have “ordinary errors” in their accounts than truth-tellers. Nonetheless, the inconsistent alibi can indirectly affect the course of the investigation as well. As Burke and Turtle (2003) suspect, once a person has given an inconsistent alibi, police may then begin a guilt-presumptive interrogation and engage in behavioral confirmation bias (Hill, Memon, & McGeorge, 2008; Kassin, Goldstein, & Savitsky, 2003). Essentially, the inconsistent alibi is seen as a lie, which in turn is seen as indicative of guilt, leading officers to selectively attend to evidence of guilt and downplay any (real) evidence of innocence.

Once they have completed their investigation, the police will pass the case file on to the prosecutor. To our knowledge, there is no research on how prosecutors view inconsistent alibis or whether inconsistencies influence their decisions to prosecute. But when we consider the number of wrongfully convicted people who had alibis and the fact that police officers believe prosecutors independently investigate less than half of alibis (Dysart & Strange, 2012), it seems unlikely the prosecutors would be any more sensitive to the reasons an innocent person could offer an inconsistent alibi than lay-people would be. Thus, the inconsistent alibi directly affects how the prosecutor sees the case. Moreover, once a prosecutor has decided to prosecute, the plea-bargaining process is likely to begin. We know that plea bargaining accounts for the resolution of more than 95% of criminal cases (Bureau of Justice Assistance, U.S. Department of Justice, 2011; Liptak, 2011). Thus, simple math suggests that innocent people are likely to accept a deal (see Hessick & Saujani, 2002). In other words, an innocent person, knowing how their inconsistent alibi affected the police officer's perceptions of their guilt, and probably on attorney advice – particularly if they cannot afford a lawyer and must instead rely on public defenders who are often so overworked they cannot provide adequate representation (Van Brunt, 2015) – may choose to plead guilty rather than risk greater punishment at trial. Put differently, to the extent that the inconsistent alibi leads prosecutors to see the innocent person as guilty, it indirectly increases the chances of that innocent person pleading guilty.

Unfortunately, even if the innocent person decides to go to trial, the inconsistent alibi will probably directly harm their defense. As previously discussed, jurors who hear the inconsistent alibi are likely to view the defendant as more guilty. The inconsistent alibi has broader, indirect effects on the trial as well. Olson (2013) found that participants who were led to believe a suspect was guilty remembered less alibi-relevant



information and rated the alibi as less believable than those without the presumption of guilt. Therefore, merely *being* the defendant in a trial can weaken an alibi. This effect is likely to be magnified for inconsistent alibis, of which laypeople are automatically suspicious. Indeed, Brewer and Burke (2002) found that a defendant who offered inconsistent testimony was seen as less credible and more likely to be guilty. In fact, research has found that the credibility of an alibi is correlated with certain character traits; the weaker the alibi, the more likely it is that the defendant will be seen in a negative way, such as scheming or deceitful (Allison & Brimacombe, 2010; Olson & Wells, 2004). These findings suggest that an inconsistent alibi could negatively affect how jurors view anything the defendant says.

## CONCLUSIONS, POSSIBLE SOLUTIONS, AND FUTURE RESEARCH

How is an innocent person put at risk by offering an inconsistent alibi? To summarize, what starts as a normal memory error has cascading effects throughout the entire legal process. The same processes that cause us to forget where we placed our keys or fail to remember what we had for 2 two weeks ago can directly result in an innocent person appearing guilty to police officers, prosecutors, and jurors – an appearance that only becomes compounded throughout the process. The memory errors also cause indirect effects, such as altering the course of the investigation, increasing the chance the suspect pleads guilty, or negatively influencing how a juror views the defendant – effects that make it more likely that an innocent person is convicted. Furthermore, it seems that even if an innocent person realizes a mistake in their alibi, they are confronted with a catch-22: maintain your factually inaccurate alibi that will, best-case scenario, do nothing to help your defense, or change your alibi to be accurate but viewed with deep suspicion. Unfortunately, the lack of procedural safeguards when a faulty alibi is rendered do not leave us hopeful.

Of course, the cascading effects are merely one avenue by which an innocent person can be found guilty. It is unlikely that an inconsistent alibi is the only evidence against a defendant: the Innocence Project has implicated inadequate defense, unvalidated and improper forensic evidence use, prosecutorial misconduct, false confessions, and eyewitness errors ([www.innocenceproject.org/#causes](http://www.innocenceproject.org/#causes)) as leading causes of wrongful convictions. There are also a number of social psychological factors that explain why alibis are not always useful, such as how people evaluate the alibi – its strength and corroborating evidence (e.g., Olson & Charman, 2012; Olson & Wells, 2004; Strange *et al.*, 2014), characteristics of the defendant (Allison & Brimacombe, 2010), whether the case is in the investigation or trial stage (Sommers & Douglass, 2007), the order that evidence is presented (Dahl, Brimacombe & Lindsay, 2009) or even how other evidence affects alibi corroborators (Marion *et al.*, 2015). It is worth mentioning, however, that the memory issues we have listed here could potentially affect an alibi corroborator as well, causing them to either give incorrect information about the alibi or fail to remember relevant information.

Fortunately, we believe there are a number of potential solutions that could minimize the problems outlined here. First, a better understanding of the best ways to generate an accurate alibi is needed. Future research should investigate how different

police questioning strategies could increase accurate recall. For example, perhaps police should ask suspects to account for a broad amount of time rather than only the time of the crime. This strategy may allow suspects to utilize more retrieval cues as they remember what they were doing before and after the time in question – a retrieval strategy that may reduce the reliance on heuristics. One approach may be to ask suspects to construct a timeline for the event in question – an interviewing technique that has been shown to increase information remembered by eyewitnesses (Hope, Mullis & Gabbert, 2013). Such a tactic would probably need adaptation for alibi evaluation, such as asking about events before and after the crime, and would probably provide more cues for accurate recall, as well as providing the chance for spontaneous corrections. Another possibility is police questioning that promotes systematic, rather than heuristic, source monitoring processes (Johnson, Hashtroudi, & Lindsay, 1993; Lindsay, 2008). By engaging in memory searches that consider relevant source information, people may be able to avoid memory distortion effects (however, see Marsh, Hicks, & Davis, 2002 for how source monitoring may increase conjunction errors). Finally, development of questioning tactics that can help police to identify reliance on memory heuristics may be helpful in detecting common memory errors that result in an inaccurate alibi. For example, if detectives noticed when a suspect said “Well, at that time I’m normally doing this...”, they should perhaps regard that part of the story with more caution. Such sensitivity regarding how suspects are constructing their alibi (and the underlying memory mechanisms) would potentially allow investigators to identify elements of the story susceptible to memory distortion, and thereby allow them to clarify potential inaccuracies. In other words, research is necessary to determine how police officers should ask for an alibi such that more accurate recall is promoted.

Second, research is also necessary regarding whether knowledge of encoding and retrieval errors can sensitize alibi evaluators to the risk posed to innocent people. For example, identifying cues other than consistency for evaluating alibi truthfulness would be extremely useful – particularly given that consistency is not a very strong indicator of truthfulness in the first place (Culhane et al., 2008b). Another research direction could explore whether training law enforcement officers and instructing juries on the difficulties faced by an innocent person constructing an alibi could make evaluators less suspicious of a changed alibi. On the one hand, preliminary research is promising: Olson and Wells (2012) found participants who generated an alibi of their own before evaluating someone else’s rated the other alibi as more credible than participants who evaluated that alibi first. On the other hand, instructions that inform jurors about the issues with eyewitness identification (see *New Jersey vs. Henderson*, 2011) may not be as effective as intended (Dillon, Jones, Bergold, Hui, & Penrod, unpublished). Indeed, Allison and Brimacombe (2010) found that judicial instructions about contextual variables (such as prior convictions) affecting alibi evaluation had no effect on guilt ratings, although, notably, those instructions did not explain the memory issues we have discussed here.

Finally, it is worth investigating new police practices that could potentially minimize the risk to innocent people. One possibility would be allowing a person time to prepare an alibi, thereby allowing them to verify their memory. Indeed, Allison, Michael, Mathews, and Overman (2011) found that participants who were warned they would be providing an alibi had less uncertainty and hesitation in their accounts – narrative qualities that increased the believability of their alibis. Of course, research should also investigate whether this strategy has any concomitant negative effects, such as increasing the risk of false alibis.

Taken together, although our understanding of basic memory processes clearly demonstrates the risk of “cascading effects” an innocent person might face when they provide an alibi, so too does it provide possible solutions. There are also a number of other research questions that should be addressed. Even research that does not directly address alibis would be useful for increasing our understanding of alibi generation and evaluation. For example, are people equally intolerant of memory errors in other high-stakes situations (e.g., firing an employee) or is their intolerance unique to legal situations?<sup>1</sup> By understanding how and why innocent people generate weak or inconsistent alibis, we can minimize the risk of wrongful conviction. Not only will that effort protect the innocent, it also means our limited time and financial resources should be saved for the investigation and conviction of genuine perpetrators.

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<sup>1</sup> We are grateful to an anonymous reviewer for suggesting this avenue of research.

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