



CHAPTER 6

Interviewing Witnesses and Victims

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Solving crimes and prosecuting perpetrators relies on investigators generating a detailed understanding of what took place during a criminal incident. Information provided by witnesses and victims not only informs understanding in this context but also plays a central role in legal decision making and, ultimately, the delivery of justice (Shepherd & Griffiths, 2013). Effective interviews with witnesses that elicit accurate and detailed information are, therefore, a crucial feature of the investigative process—and the onus is on the interviewer to maximize both the quality and quantity of information obtained. However, eliciting accurate and detailed information about an incident from witnesses is a complex process. For a number of psychological reasons, even cooperative witnesses do not spontaneously report all the information they know. Further, interviewers can inadvertently limit or contaminate witness accounts through the use of misleading or otherwise inadequate questioning techniques. Ultimately, poorly conducted interviews are unlikely to result in reliable evidence and, worse, may contribute to the miscarriage of justice.

The quality of the information obtained in the course of investigative interviews is determined by a number of unrelated factors, some of which are outside the control of the interviewer, but some of which relate directly to the activity of the interviewer. In this chapter, we examine some of the factors likely to affect the detail and accuracy of witness memory before the investigative interview even begins. Next, we consider the psychological factors known to underpin successful interviews with cooperative witnesses and promote effective social dynamics between the interviewer and interviewee. (For interviews with suspect and hostile witnesses, see Madon,

More, & Ditchfield, Chapter 3, and Gunderson & ten Brinke, Chapter 4, this volume, on interrogations and detecting deception, respectively.) These factors include building and maintaining rapport, establishing the role of the interviewer(s) and interviewee, providing retrieval support, and promoting accurate and detailed accounts. Appreciation of these factors from a psychological perspective has informed the development of approaches to eliciting information from witnesses and victims in the course of investigative interviews, such as the Cognitive Interview (CI; Fisher & Geiselman, 1992) and the National Institute of Child Health and Human Development (NICHD) protocol (Sternberg, Lamb, Orbach, Esplin, & Mitchell, 2001). We critically assess these contemporary investigative interviewing techniques and more recent innovations in empirical research on investigative interviewing. We also consider translational issues in the transfer of research-based and theoretically informed interviewing techniques to the field, where various pragmatic factors may hamper successful outcomes. Given that investigative interviewing is a challenging skill to master and demands a sound understanding of memory, communication, and other cognitive, social, and environmental factors that may affect the content and accuracy of witness accounts, we examine issues pertaining to training and retention of investigative interviewing skills.

INVESTIGATIVE INTERVIEWING: CHALLENGES IN THE REAL WORLD

Given that competent forensic investigative interviewing is at the core of excellent investigative practice, it is vital that investigators are equipped to conduct ethically defensible interviews of high quality. However, investigative interviewing is a complex skill to master. Indeed, Powell (2014) sums up this complexity well: “It is not intuitive. It is not easily learned on the job. It is not an art form. Rather, it evolves from scientific enquiry—from the systematic study of human behaviour; the evaluation of new improved methods, laws and systems, against agreed outcomes; and the establishment of mechanisms to transmit new knowledge and promote change in practice and procedure.” Further, investigative interviewing is a complex interaction that takes place within a much broader cognitive, social, and environmental context. Before examining the challenges inherent in the interaction between the interviewee and interviewer, it is worth highlighting a number of contextual factors that contribute both to the complexity of the interaction and the difficulty of obtaining detailed and accurate information from cooperative witnesses.

Contextual Factors Affecting Witness Memory

In any investigation, a primary concern for the interview lies in obtaining an accurate and detailed account of the incident from witness memory.

However, human memory is fallible. Not only does information decay over time, but human memory is also vulnerable to distortion and error. To make matters worse, investigative interviews often need to be conducted with witnesses and victims who, due to the nature of the crime, may not have been paying attention or were distracted. This may be because the crime was brief or somehow incidental and the consequences only realized later (e.g., identity fraud, theft, distraction crimes) or because, for a variety of reasons, the witnessing conditions were suboptimal (e.g., chaotic scene, poor lighting, limited viewing conditions). In such instances, the amount of attention afforded to encoding the crime may be compromised, and witnesses may only have weak or partial memory for aspects of the incident (e.g., Hope et al., 2016).

Alternatively, it may be that the witness was under the influence of alcohol or other substances at the time of the incident (Palmer, Flowe, Takarangi, & Humphries, 2013). Although basic research on the effects of alcohol on memory tends to show memory impairment with intoxication (see Mintzer, 2007, for a review), research examining the effects of alcohol intoxication on witness memory has produced somewhat inconsistent findings. In laboratory-based research, intoxicated witnesses have been found to be no less accurate or more vulnerable to suggestion than sober witnesses (Schreiber Compo et al., 2017). However, some field studies have observed impaired recall and increased susceptibility to misinformation (e.g., Van Oorsouw & Merckelbach, 2012), noting that effects were also present after a delay when the participant was sober again (for similar temporary effects of smoking marijuana on witness memory, see Yuille, Tollestrup, Marxsen, Porter, & Herve, 1998).

In other instances, witnesses and victims may have been highly stressed or fearful during encoding of the incident. High levels of stress experienced in naturalistic settings generally impair memory, and these detrimental effects have been well documented (e.g., Hope et al., 2016; Hope, Lewinski, Dixon, Blocksidge, & Gabbert, 2012; Morgan, Southwick, Steffian, Hazlett, & Loftus, 2013). The effect of arousal on memory performance appears to reflect an inverted U-shaped curve with memory for events best when stress levels are moderate (for a review, see Finsterwald & Alberini, 2014). Increased levels of suggestibility have been associated with stress at encoding. In a study involving over 800 soldiers taking part in challenging survival training, Morgan et al. (2013) found that soldiers exposed to misinformation (a photo of a person who was not an interrogator) following a high-stress interrogation were 40% more likely to incorrectly identify this person as their interrogator than those who did not receive the misinformation. Following exposure to misinformation, 27% of soldiers mistakenly reported that their interrogator threatened them with a weapon. Similarly, Hope et al. (2016) found that almost one-fifth of officers in a simulated fire-arms scenario incorrectly reported that the perpetrator pointed a weapon at them during the scenario.

This is not an exhaustive outline of the contextual factors at encoding that may affect both the quality and quantity of information provided by witnesses in investigative interviews. However, it is important that investigators consider the encoding context in the planning and conduct of interviews with witnesses—not only will this facilitate assessment of the crime scene or incident, but it will also ensure that the interviewer is alert to potentially increased suggestibility. Further, acknowledging any challenges in the encoding context may also assist the witness and reduce any actual or perceived pressure to report details of the incident that he or she either did not encode or can no longer recollect.

Investigative Interviews in Practice

Given the potential complexity of the context in which investigative interviews are often conducted and the demands of the investigative interviewer's task, it is not surprising that observational and empirical research suggest many interviews conducted in practice are of poor quality (Sternberg, Lamb, Davies, & Westcott, 2001). Indeed, there are many well-documented high-profile examples of bad interviewing practice leading to the arrest and, in some cases, conviction of innocent people (e.g., the McMartin case in the United States; the Birmingham Six in the United Kingdom; Oude Pekela in The Netherlands).

Over 30 years ago, Fisher, Geiselman, and Raymond (1987) analyzed a sample of interviews conducted by U.S. police and noted significant deficits in the interviewing approaches observed. Interviewers typically gave witnesses little opportunity to provide a free-recall account of what they had seen but instead interjected with direct or closed questions. Little or no effort was made to implement any techniques that might have improved or supported witness memory retrieval. In addition to interrupting the witness, other inadequate features of the interviews included confusing question sequences (not compatible with the witness's memory for the sequence in which the event occurred), negative question phrasing (e.g., "Didn't you see the man involved?"), judgmental remarks (e.g., "That was a stupid decision you made"), use of jargon or other inappropriate language, pressurized short-form questioning that gave the witnesses little opportunity to respond in any detail (and as a consequence resulted in brief or single-word replies), and failure to follow up on potential leads. Further, there was little uniformity of approach or structure across interviews and interviewers. Similar observations were made by George and Clifford (1992) for a sample of interviews conducted by British police.

More recent work continues to highlight shortcomings in the quality of interview skills (e.g., Lamb, 2016). Failing to establish rapport, interrupting interviewees, asking primarily closed questions, and failing to provide effective retrieval support due to lack of training or understanding of relevant techniques can all—individually and collectively—impair

an interviewee's ability to provide an accurate and complete account. For example, using rapid-fire closed questions effectively relegates cooperative witnesses, who may have valuable information to report, to the passive role of question answerers rather than the more active role of information generators/providers. Despite a larger number of questions being asked in such an approach, the overall information elicited in terms of amount of detail is impaired. Further, interviewers taking this approach often ask leading questions that suggest a particular answer or contain information the interviewer is seeking to have confirmed (Fisher et al., 1987).

Interviews with Cooperative Witnesses

A number of protocols for interviewing cooperative witnesses have been developed in direct response to overcoming the shortcomings and challenges described above, the most prominent of which are the CI (Fisher & Geiselman, 1992) and the NICHD protocol (Sternberg, Lamb, Orbach, et al., 2001). These protocols, evaluated in more detail below, provide a structured yet flexible combination of psychologically informed techniques for interviewers to observe. Broadly speaking, these techniques have been found to significantly increase the amount of information elicited with little cost to accuracy (see Memon, Meissner, & Fraser, 2010, for a review). From a psychological and social communication perspective, a number of core features of these protocols underpin these apparent advantages, including the (1) development of good rapport between the interviewer and the interviewee; (2) management of interviewee expectations about the interview and his or her role in it; (3) use of open-ended questions and instructions to promote both detail and accuracy; (4) use of retrieval support techniques and, if appropriate, flexible reporting formats; and (5) maintenance of an open investigatory mind-set by the interviewer. In the next section, we outline these core features and the underpinning rationales and evidence for their inclusion in ethical and effective investigative interviewing techniques (see also Fisher, 2010; Fisher, Schreiber Compo, Rivard, & Hirn, 2014).

Developing Good Rapport

Rapport between the interviewer and the interviewee has been described as a critical and central feature of effective investigative interviewing, and the importance of building rapport is heavily emphasized in guidance and training manuals (e.g., *Achieving Best Evidence [ABE]*: Ministry of Justice, 2011; NICHD protocol: Lamb, Orbach, Hershkowitz, Esplin, & Horowitz, 2007). However, rapport is a complex and likely multidimensional concept, and, to date, no shared definition of rapport or consensus about how it might be achieved has been established. For example, researchers and practitioners have variously defined rapport as: "The bond or connection between an investigative interviewer and interviewee" (Vallano, Evans,

Schreiber Compo, & Kieckhafer, 2015, p. 369); “A working relationship between source and interviewer” (Abbe & Brandon, 2013, p. 216); “A positive mood between interviewer and interviewee” (Ministry of Justice, 2011, p. 70), and, somewhat conflictingly, “The establishment of a relationship, which does not have to be friendly in nature” (U.S. Army Field Manual, 2006, Section 8.3).

Similar discrepancies occur in research methodologies: Diverse approaches have been used to both manipulate and measure rapport. For example, Collins, Lincoln, and Frank (2002) manipulated rapport via voice tone (gentle vs. abrupt), body posture (stiff vs. relaxed), interpersonal behavior (engaged vs. disinterested), and personalization and name usage (present vs. absent). Kieckhafer, Vallano, and Schreiber Compo (2014) manipulated active listening, name usage, and sharing of personal yet unofficial information. Holmberg and Madsen (2014) manipulated whether interviewers adopted a humanitarian versus a dominant interview style.

The absence of a precise or operational definition leaves the term “rapport” open to interpretation, which has consequences for how it is researched, evaluated, trained, and practiced. However, despite definitional ambiguity, there is overlap in how some characteristics of rapport have been described, such as linguistic and behavioral similarities. These descriptions are underpinned by observational research showing that people (in Western societies at least) adopt particular behaviors (such as relaxed body language, attentiveness, similar communication styles, perceived common ground, use of empathy and mutual respect) when interacting with people they trust and/or when people are motivated to affiliate with others (Abbe & Brandon, 2013). At a more fine-grained level, it has been proposed that rapport comprises (1) mutual attention, as reflected in the degree of involvement between the interviewee and interviewer; (2) positivity, as reflected in the degree of friendliness, warmth, and respect in the interaction, and (3) coordination, as reflected in the extent of behavioral synchrony (Tickle-Degnen & Rosenthal, 1990; see also Abbe & Brandon, 2013; Douglass, Brewer, Semmler, Bustamante, & Hiley, 2013).

Regardless of how rapport is defined, findings from psychological research suggest that developing rapport facilitates communication and information elicitation (Abbe & Brandon, 2013; Alison, Alison, Noone, Elntib, & Christiansen, 2013). Furthermore, interviewers who make an effort to develop rapport with an interviewee elicit significantly more detailed and accurate memory reports from witnesses (Collins et al., 2002), suspects (Alison et al., 2013), and in intelligence gathering contexts (e.g., Soufan & Freedman, 2011). However, across the literature, it remains unclear how the observed rapport advantage occurs. The effects of rapport could be motivational (e.g., the interviewee tries harder) or rapport could assist memory retrieval in other ways (e.g., a positive relationship with the interviewer reduces unnecessary distraction; for further discussion, see Vrij, Hope, & Fisher, 2014).

Setting Ground Rules and Managing Interviewee Expectations

Given the importance of detailed information for investigative leads and subsequent evidence, facilitating witness accounts that are richly detailed and accurate is imperative. Even when good rapport has been established between the interviewer and interviewee, witnesses do not spontaneously report all the information they have. There are several possible reasons for this apparent reluctance. First, it is quite possible that witnesses expect that an interviewer will ask them a number of questions and that their role is simply to answer those questions (and only those questions). This question–answer representation of a police interview is commonplace in popular culture, media, and movies. Witnesses might also make a number of assumptions about what the interviewer knows (or might plausibly know) already and edit their account accordingly, effectively second-guessing the facts of the case.

Second, the social context of an investigation generally accords the interviewer higher or expert status and associated control of the interview. However, as noted by Fisher and Geiselman (1992), it seems obvious that the person with firsthand knowledge of the incident should control the interview. It is, therefore, vital to transfer control of the interview to the witness. The importance of the witness's contribution to the investigation should be emphasized; interviewers should explain that they were not present and do not know what the witness saw. Furthermore, given that there is a difference between remembering information and reporting information, witnesses should be instructed to “report everything” to minimize the risk of potentially important information being withheld.

Third, the investigative interview context is, in terms of interpersonal interaction, highly unusual in that it violates the norms of most ordinary conversations in a number of ways. The reporting of very specific details is unusual in a conversational context; thus witness reports may be somewhat less detailed or complete than necessary to pursue effective investigations (Gabbert, Hope, Carter, Boon, & Fisher, 2015). In particular, witnesses do not report information that they assume to be unimportant. Therefore, informing the interviewees about the type and level of detail they are expected to report and attenuating any tendency to provide a relatively undetailed summary or overview are the first steps toward promoting a detailed account. For example, the threshold of reporting can be influenced by using instructions such as “Your description should contain enough detail to enable me to pick the person out in a crowd” (see Koriat, Goldsmith, & Pansky, 2000, for a review of metacognitive monitoring and control processes in memory).

Fourth, witnesses may guess at or “fill in the gaps” for any missing information that they cannot remember; interviewers should encourage accuracy by warning against this practice. Encouraging the use of “Don't know” or “Not sure” responses may also be beneficial. Encouraging or

explicitly “permitting” such responses allows the witness to acknowledge when he or she does not know the answer or cannot recall certain details and should work to attenuate concerns about credibility and pressure to provide information the witness is unsure of (Fisher & Geiselman, 1992). Furthermore, research suggests that “Don’t know” responses can be explored in meaningful ways to determine whether the witness genuinely has no recollection of particular information or whether he or she may have access to some information but with low levels of confidence and thus has chosen to withhold it (e.g., Scoboria & Fisico, 2013; Hope et al., 2016).

Finally, witnesses and victims may harbor a variety of beliefs and expectations about the purpose of the interview and how the information they provide might be used. Thus the interviewer needs to make the needs and objectives of the investigation clear in order to elicit a detailed but accurate account.

Questioning to Promote Both Detail and Accuracy

Early observations noted that different question types affect the quality of responses (e.g., Varendonck, 1911). Since then, focusing on the use of police questioning techniques, research has confirmed that investigative interviews featuring relatively more open questions tend to elicit longer, more detailed, and more accurate responses than those featuring a predominance of closed questions (see Oxburgh, Myklebust, & Grant, 2010, for a review of question typologies). Consequently, prominent investigative interview protocols endorse the use of open questions to elicit free narrative reports. Open questions allow for an unlimited free-recall narrative response from an interviewee (e.g., “Tell me in your own words what happened”). Witnesses are encouraged to provide a detailed account of the incident in their own words, at their own pace, without interruption by the interviewer.

Questions inviting narrative responses have a number of benefits. First, they enable the interviewee to engage in a report of the incident without editing or summarizing based on assumptions about the interviewer’s knowledge or requirements. Not only is this approach likely to facilitate a higher quality recall of relevant information, but it also reduces the likelihood of the investigation following a particular agenda or bias. Second, generating a free narrative about a target incident is likely to engage the rememberer in a more elaborative and effortful free retrieval and is less distracting than formulating responses to short- or closed-answer questions (see Powell, Fisher, & Wright, 2005). Third, free recall reports of this nature are usually more accurate than responses to short-answer or closed questions, principally because the interviewer is less likely to lead the witness when framing questions in this manner. Open questions can also be used to elicit further information about relevant topic areas that have been identified from the broad narrative response (e.g., “You mentioned X. Tell me more about X”). These more focused, open questions

to access breadth and depth of information are commonly referred to as “TED” questions (Tell/Explain/Describe); they continue to give witnesses the flexibility to choose what to report, albeit in response to more focused prompts for information.

Witnesses providing information in response to open questions face competing demands for informativeness (i.e., providing as much information as possible) and accuracy (i.e., providing correct information). These competing demands require effective metacognition (i.e., thinking about one’s own report), and research suggests that, in an attempt to balance these demands, individuals regulate the *granularity* (i.e., level of detail reported) of the information they provide (e.g., Weber & Brewer, 2008). Models of strategic memory reporting (Goldsmith, Koriati, & Weinberg-Eliexer, 2002) propose that, when responding to questions, the rememberer first attempts to retrieve a highly detailed, fine-grained response. The likely or probable accuracy of this candidate response is assessed and, if it exceeds a preset criterion for accuracy, the response is provided. If the probable accuracy falls below the criterion, the rememberer attempts to retrieve a less detailed, coarse-grained response. As such, information retrieved by a witness must exceed a criterion level of certainty to be reported. This self-regulation of memory output likely underpins the higher levels of accuracy typically observed for responses to open-ended questions (compared with other question types).

In some cases, open questions targeting breadth and depth of information may fail to elicit the level of detail required to meaningfully progress a particular line of inquiry. In such cases, the use of (nonleading) probing questions to expand on the information provided may be appropriate. Such questions are commonly known as the WH questions (Who–What–Where–When–How). In contrast to open questions (e.g., “Describe the car”), probing questions (e.g., “What color was the car?”) typically prompt short, factual responses from an interviewee (e.g., “red”; Oxburgh et al., 2010). These can be useful in gathering investigation-important information and, when used sparingly, can be effective in that they can bypass dependence on individual memory organization and instead provide direct, target-specific, and topic-relevant information. Probing questions may also be useful if interviewees are unresponsive to open-ended questions or are not able to provide a precise and/or coherent account of what happened (Eisen, Qin, Goodman, & Davis, 2002).

When open and WH questions have been exhausted, interviewers may need to ask a closed question (sometimes known as “specific”; Oxburgh et al., 2010). These often elicit “yes/no” clarification responses (e.g., “Did you drive the car?”, “Did X say that?”). Generally, however, such questions should only be used sparingly and when the usefulness of open-ended and probing formats has been exhausted. Given limited processing resources, extensive questioning is not only tiring for both interviewers and interviewees but also tends to focus the interviewees’ attention on the interviewer

(rather than on their memory for the information). Furthermore, the attention of the interviewers becomes focused on the generation of questions rather than listening carefully to the interviewees' responses.

Sometimes confusion occurs both within the investigative interviewing literature and in practice concerning the use of closed questions. In some quarters, the use of closed questions has been criticized as suggestive or leading and thus indicative of poor interviewing technique. However, it is important to draw a distinction between (mis)leading closed questions and nonleading closed questions that allow for cued-recall responses. Leading and misleading questions are those that suggest something to the interviewee that he or she has not revealed him- or herself (e.g., "Was the car black?" suggesting that (1) there was a car and (2) it was black). The suggestive nature of this type of question promotes the notion that the witness is simply required to confirm information that is already known. Extensive research documents the negative effects of leading and misleading questions in investigative interviewing contexts (Sharman & Powell, 2012). Similarly, questions with multiple parts (sometimes known as "multiple questions") and option-posing questions (sometimes known as "forced choice" questions) have been shown to result in less accurate and more suggestible responding (Oxburgh et al., 2010; Shepherd & Griffiths, 2013), particularly in vulnerable victims and witnesses (Maras & Wilcock, 2013).

In sum, given that the aim of an investigative interview is to elicit as much reliable information from a witness as possible in his or her own words, formulating and asking appropriate, nonleading questions is vital. This is best achieved using a hierarchy of appropriate questions (open to probing) followed by closed questions (if necessary). For each topic area, the same question hierarchy (open to probing) should be used to elicit all of the information required for investigatory and/or evidential purposes. Thus probing questions, and even closed questions, can be considered *appropriate* if used after open questions for breadth and depth have been exhausted but *inappropriate* if used at the wrong point in the interview (e.g., before attempts to elicit the information using open-ended approaches).

Unfortunately, although this ideal, structured approach to conducting an investigative interview appears simple, there is a tendency for interviewers to use too many (inappropriate) closed, leading, or multiple questions to elicit information, sometimes in a "rapid-fire" question-answer format (Fisher, Geiselman, & Raymond, 1987). Despite investment in "best practice" interview training in many countries (e.g., *Achieving Best Evidence*: Ministry of Justice, 2011) and the widespread availability of guidelines endorsing the use of open-ended questions, surveys of forensic interviews in the United Kingdom, United States, Canada, Norway, Sweden, Israel, and Finland continue to show deficits in the use of open-ended memory prompts and observe that interviewers frequently revert to a closed interview style (e.g., Lamb, 2016; Sternberg, Lamb, Orbach, et al., 2001; and others).

Providing Retrieval Support

Common to several prominent interview protocols are retrieval support activities designed to maximize the quality and quantity of information retrieved and reported. Some of these are widely used mnemonics that form part of the CI, whereas others reflect more recent innovations in the investigative interviewing literature.

MENTAL REINSTATEMENT OF CONTEXT

The “encoding-specificity principle” outlined by Tulving and Thomson (1973) proposed that a match between the original context (when experiences were encoded) and the recall context facilitates memory. Early support for this principle was observed when divers who learned items underwater recalled those items better when tested under water than on dry land. In an investigative context, there are a variety of reasons why physically reinstating the context is inappropriate (e.g., the context has changed since the incident was encoded; the context no longer exists or, most likely, cannot or should not be recreated). A powerful alternative, mental reinstatement of context, involves the mental revisiting of the encoding context. Interviewees are instructed to think back to the original event and psychologically reexperience mental, physical, emotional, and sensory aspects of that event (e.g., “What could you see? What could you hear? What could you smell? How did you feel?”). Mentally reinstating context in this way typically promotes the recall of additional accurate information and is particularly effective following a long delay (Fisher & Geiselman, 1992).

VARIED AND MULTIPLE RETRIEVALS

Retrieving information from memory increases the activation level of items of information in memory, as well as the associations between items. Thus, not only does an attempt to remember detailed information strengthen memory, but it also increases (1) the likelihood of subsequent retrieval and (2) the retrieval of further information, reflecting the well-documented “testing effect.” This effect is thought to occur, at least in part, due to the elaboration and activation of memory traces that can result when retrieval processes are engaged during remembering (Roediger & Butler, 2011). In the investigative interviewing context, attempting to remember an event on multiple occasions using different memory strategies, such as remembering the event in reverse order (from end to beginning), can also result in the recollection of information not initially reported (e.g., Fisher & Geiselman, 1992).

REPORTING MODALITY

Communicating certain types of information may be difficult to do verbally or in a linear narrative. Interviews should therefore explore whether

some of the information a witness has to report might be better described or communicated nonverbally. For instance, it may be useful to ask witnesses to generate a sketch of the scene to report important spatial information, including details relating to direction of movement or travel (which may be particularly pertinent for the investigation of road traffic incidents or direction of escape routes). Research also suggests that drawing a sketch may also promote retrieval of relevant details (Dando, Wilcock, Milne, & Henry, 2009). Similarly, using a time line enhances communication of the links between persons and actions in multiperpetrator events and the temporal order of action (Hope, Mullis, & Gabbert, 2013).

SELF-GENERATED CUES

A self-generated cue is defined as any detail salient for the individual, and generated by the individual him- or herself, which is intended to facilitate more complete retrieval of a target memory. The rationale for this mnemonic is based upon Anderson's (1983) spreading activation theory, Tulving and Thomson's (1973) cue-overlap theory, and Nairne's (2002) cue-distinctiveness theory, all of which support the idea that the quality of the overlap between encoded information and retrieval cue predicts the likelihood of successful retrieval. Research suggests that self-generated cues enhance mock witness recall performance relative to other mnemonics, including those generated by the interviewer (Kontogianni, Hope, Vrij, Taylor, & Gabbert, 2018).

THE CI AND THE NICHD PROTOCOL

There are many interview models and protocols currently used by practitioners across the world, with significant variation in the extent to which their formats and effectiveness are supported by scientific evidence, irrespective of the claims made by their proponents. However, two of the most effective, established, and used interview protocols are the CI (Fisher & Geiselman, 1992) and the NICHD protocol (Lamb et al., 2007). These approaches are considered the "gold standard" in that they adhere to the principle of using the best-practice ethical techniques to elicit reliable information from interviewees and have been meaningfully informed by psychological science, particularly with respect to the functioning of human memory. Although the two approaches draw upon very similar key concepts and theoretical underpinnings, there are differences that have affected the development of each. Specifically, the CI was developed largely to enhance the memory of adults who are cooperative witnesses for the purpose of advancing the investigation and providing investigators with accurate leads to pursue (see Memon et al., 2010, for a review). In contrast, the NICHD protocol was developed primarily for use with children (see Lamb, Hershkowitz, Orbach, & Esplin, 2008).

The CI (Fisher & Geiselman, 1992; Fisher, Geiselman, Raymond, Jurkevich, & Warhaftig, 1987) emerged from psychological literature on the nature of episodic memory and memory retrieval processes and incorporates the principles of social dynamics, cognition, and communication (Fisher, 2010). In brief, the CI is based on two principles of memory: (1) a memory trace consists of a network of related information, and (2) there are several possible ways of retrieving an encoded event, so information that cannot be retrieved initially may become accessible using a different retrieval approach. Capitalizing on these theoretical principles, Fisher and Geiselman (1992) developed several techniques to facilitate the accurate retrieval of witnessed episodes (report everything, mentally reinstate context, change temporal order, and change perspective). In a revised version of the CI (the “Enhanced CI”; Fisher, Geiselman, Raymond, Jurkevich, & Warhaftig, 1987), strategies aimed at optimizing both the retrieval process and the social and communication aspects of an investigative interview were incorporated (e.g., rapport building, transferring control of the interview to the witness, focused retrieval, and witness-compatible questioning). As such, the CI is best described as a collection of techniques, only some of which might be used in any given interview (Fisher et al., 2014)

In a meta-analysis including studies published since 1999, Memon et al. (2010) found that, when used appropriately by skilled interviewers who fully understand and engage with the key cognitive and social principles, the CI results in a “large and significant increase in correct details” (p. 357), as well as reducing the use of inappropriate questioning during interviews. The meta-analysis also revealed a smaller but significant increase in the reporting of incorrect details in the CI interview relative to standard or structured interview formats. Memon et al. (2010) suggested that this increase in incorrect details may be due to variation in the version of the CI used and advocated greater emphasis on the use of “I don’t know” and “Do not guess” instructions when interviewing. Although heavily reliant on investigator resources, including time and high-quality training, the CI is effective across investigative domains (e.g., crimes, accidents, health-related experiences), interviewees (e.g., children, adults, older adults), and nationalities (e.g., U.S., U.K., Brazil; for a review, see Fisher, 2010; see also Vrij et al., 2014).

In contrast to the CI for interviewing cooperative adults, the NICHD protocol was developed for the purposes of eliciting reliable evidence from child witnesses who, for developmental reasons or due to the nature of crimes against them, might appear to be uncooperative. The NICHD protocol was developed in response to observations that investigative interviewers working with child witnesses and victims demonstrated poor interview practice in that they had difficulty adhering to open questions and frequently used inappropriate techniques such as closed and suggestive questions (Lamb, 2016). Given this context, a range of professionals, including lawyers; developmental, clinical, and forensic psychologists; police officers;

and social workers sought to create a forensic interview protocol that outlined developmentally appropriate instructions and question types designed to encourage reliance on best-practice techniques. In particular, the goal was for the protocol to be suitable for use by interviewers who do not have a specialized knowledge of memory development or suggestibility research and with varying levels of experience and training.

The NICHD protocol essentially provides structured guidance or a “script” for interviewers to follow that is consistent with best practice. The protocol commences with interviewers explaining what their role and the purpose of the interview are and establishing some “ground rules” (e.g., that the interviewee should only report events that really took place and inform the interviewer if anything is not accurate, clear, or otherwise confused). Rapport is considered an important element of the interaction and is developed throughout the early “presubstantive” phase, which includes a “practice narrative” that serves to encourage the child (who may be a victim or witness) to talk in depth, while also informing the interviewer of the child’s verbal ability. Instructions and carefully phrased open-ended prompts enable the interviewer to encourage children to provide as much information as possible (see Lamb et al., 2007; www.nichdprotocol.com).

The NICHD protocol has been the focus of extensive evaluation and research since its introduction to the field. This body of research consistently shows that the quality of interviewing reliably and dramatically improves when interviewers employ the NICHD protocol (Lamb et al., 2007; for a meta-analysis, see Benia, Hauck-Filho, Dillenburg, & Milnitsky Stein, 2015). For example, an analysis of over 40,000 real-world NICHD interviews indicates that the protocol improves the quality of interviews, leading to more open-ended questions and half as many direct, leading, or forced-choice questions when compared with standard or structured interviews (see Lamb, 2016). Furthermore, analysis of real child sexual abuse case data confirmed that using the NICHD protocol interview resulted in more guilty pleas and, where cases were tried, more guilty verdicts than nonprotocol interviews (Pipe, Orbach, Lamb, & Abbott, & Stewart, 2013).

FROM RESEARCH TO PRACTICE: TRANSLATIONAL ISSUES

Although both CI and NICHD approaches offer investigators a systematic way in which witness information can be effectively elicited, both have encountered some challenges in translation from research to practice. For instance, the CI has been described as a demanding procedure, both for the interviewer (to learn, understand, and administer) and for witnesses (to engage with; Fisher, Geiselman, Raymond, Jurkevich, & Warhaftig, 1987). Survey data from police officers reveal that the CI is perceived as too time-consuming and cumbersome and that some of the individual components are reported to be ineffective and/or difficult to administer (Dando,

Wilcock, & Milne, 2008; La Rooy, Lamb, & Memon, 2011). A direct and alarming consequence of this general perception of the CI is that interviewers frequently report that they *do not use the technique at all*, despite its being the only evidence-based witness interview procedure currently available and incorporated in investigative interviewing training curricula. It is likely that many failures to engage with the CI reflect a fundamental misunderstanding of the CI and, in particular, of its flexible nature. As pointed out by Fisher et al. (2014), “the skill of conducting an interview is to know which techniques can be implemented, given the specific conditions of the interview, and how best to implement the techniques” (p. 563). As such, the CI cannot be taught as a “check-box” protocol and requires high-quality training to ensure both understanding and successful implementation.

There are also a number of features of research on investigative interviewing that should be taken into account when considering the viability of translation from research to practice. As is common in the vast majority of applied experimental work, much of the initial research conducted in the development of new techniques and tools (and assessment of existing ones) is conducted under what might be described as pristine laboratory conditions. Such experiments typically involve optimal encoding contexts (clear, unimpeded, and expected viewing of a neutral nonarousing event), rigorously controlled application of procedural protocols, and the testing of highly educated young adult samples speaking in their first language. Broadly speaking, this approach is appropriate in order to evaluate the initial performance of new methodologies (relative to established or other different comparison methods) and to provide some indicator as to whether a particular line of research is viable or promising. However, inevitably, these initial testing conditions do not reflect the realities of many witnessing conditions, including important features of the encoding contexts (see earlier section) and features of the witness or victim (e.g., age, distress, vulnerabilities pertaining to disability, mental health, trauma). Although research has begun exploring the efficacy of different interviewing methods for different samples, including samples varying in age (see Wright & Holliday, 2007), with autism spectrum disorder (see Maras & Wilcock, 2013), and with trauma (Krix et al., 2016), further work is needed to examine performance under different “real-world” conditions. Assessments of the “maturity” of research (e.g., replication across different laboratories and contexts), the extent to which methodologies reflect both internal and external validity, and both the viability and reliability of any field-based evaluations are important for those tasked with translating research into practice.

One area that has been particularly neglected in the investigative interviewing literature pertains to the challenges and opportunities present in cross-cultural interviewing contexts. Given the current geopolitical context of war, terrorism, human trafficking, and organized crime, the pursuit of justice increasingly relies on productive interactions between individuals from diverse cultural backgrounds. In this vein, police–civilian interactions

are increasingly occurring at a cultural crossroads (Giebels & Taylor, 2009). To date, however, there have only been limited attempts to evaluate the role of culture in the conduct of effective investigative interviewing with victims and witnesses (with the majority of the limited literature available tending to focus on interviews with suspects; e.g., Giebels, Oostinga, Taylor, & Curtis, 2017; Taylor, Lerner, Conchie, & Menacere, 2017).

Consideration of culture may, in some cases, be fundamentally important to the conduct of effective investigative interviews. Culture affects the ways that individuals communicate and may be particularly relevant when seeking to establish rapport and promote cooperation in interviewing contexts. The nature of reporting may also vary due to cultural factors. For example, low-context communication, characteristic of Western (individualistic) communication, is factual, direct, and linear (Gudykunst & Ting-Toomey, 1988; Hofstede, 2001). However, communication in high-context (collectivist) cultures tends to be more indirect and context-oriented (i.e., topics may not be addressed directly or aspects of topics may be left unsaid). As such, attempts at direct and rational persuasion with an interviewee from a high-context culture may be problematic, particularly if his or her culture values honor. In such circumstances, the nature of direct questions that typify rational arguments may be perceived as a threat to credibility and therefore to public image and honor (Gelfand et al., 2015). Given that most research in the investigative interviewing domain has not considered the role of culture, it is clear that further work is required to ensure the effective translation of research on investigative interviewing to practice across cultures.

TRAINING AND RETENTION OF INVESTIGATIVE INTERVIEWING SKILLS

Within the investigative interviewing literature, there is remarkably high consistency between researchers about which techniques (and associated skills) are most effective in eliciting full and reliable accounts from witnesses. Identifying successful methods to train people in the use of these techniques and application of the relevant and necessary skills is, therefore, critical. Typically, investigative interviewer courses are short, albeit intensive, lasting for a few days. Although there are often national standards and curricula that courses are expected to meet (e.g., *Achieving Best Evidence*: Ministry of Justice, 2011), the content of individual courses can vary widely, and training resources are often not standardized. Worse, anecdotal accounts suggest that investigative interviewing training is not always delivered by trainers or consultants with requisite knowledge, understanding, skills, or experience. Furthermore, training programs are subject to time and financial constraints, with training, feedback, and ongoing practice and support often unavailable or inappropriate (Powell & Wright, 2008).

The most common way to evaluate the effectiveness of any investigative interview training procedure is by examining the use of desirable question types—for example, whether there is an increase in the proportion of open questions used from pretraining to posttraining performance and a decrease in the proportion of closed questions and leading questions being used (Lamb, 2016). The volume and rate of questions is often also subsumed within this measure. In addition, some evaluations assess the extent to which interviewers competently use more complex skills, such as building rapport, structuring topic areas for questioning, and using mnemonics to facilitate retrieval. Other evaluations measure the extent to which interviewers adhere to an interview protocol such as the CI or the NICHD protocol (Lamb et al., 2007) or to an interview framework such as PEACE¹ (Clarke & Milne, 2001). Trainees' perceptions of the effectiveness of courses or their knowledge of best-practice interviewing are *not* useful indicators of training effectiveness, as research shows there is no significant relationship between these factors and adherence to best-practice guidelines (Wright & Powell, 2007).

Evaluations of investigative interview training largely make for disappointing reading. Despite the provision and implementation of best-practice guidelines and respective interviewer training, field studies frequently show that interviewers around the world fail to execute the task effectively (for a recent review, see Lamb, 2016). For example, Davies, Wilson, Mitchell, and Milsom (1995) evaluated the quality of interviews in the United Kingdom following the implementation of the Memorandum of Good Practice and found the average time spent in free-narrative phase was 1 minute, 44 seconds, compared with 18 minutes, 36 seconds spent using closed questions. Furthermore, 28% of interviewers did not attempt to elicit a narrative response at all. A follow-up evaluation by Davies, Westcott, and Horan (2000) found that, across a sample of investigative interviews conducted between 1991 and 1997, only 2% included open questions (see also Clarke & Milne, 2001). Similarly, Myklebust and Bjorklund (2006) studied 100 Norwegian child-abuse investigators following a two-tier (moderate and advanced) interviewing training program, finding no significant difference in the questioning skills of the investigators at the end of the program. In a more focused evaluation of interview training, Warren et al. (1999) examined the effects of a 10-day course designed to improve the knowledge and skills of experienced child-abuse investigators. Although interviewers demonstrated an improvement in their declarative knowledge about children's abilities and appropriate interview practices, there was no

¹PEACE is a mnemonic for *P* (Planning and preparation), *E* (Engage and explain), *A* (Account), *C* (Closure), and *E* (Evaluation, of the interview and the interviewer's performance). For more on the PEACE framework and how it is implemented in U.K. policing, see www.app.college.police.uk/app-content/investigations/investigative-interviewing/#peace-framework.

change in subsequent interview practice. Specifically, there was no significant improvement in use of open questions, nor a significant change in the frequency of use of leading questions. The lack of association between an interviewer's *knowledge* of best-practice interviewing and actual interview *practice* has repeatedly been demonstrated by researchers, suggesting that possessing relevant knowledge is necessary but not sufficient for being able to interview effectively. Indeed, it is now considered essential that investigative interview training also incorporate practice and feedback sessions (see Lamb, 2016; St.-Yves et al., 2014).

Demonstrating the importance of the need for both theory and practice components of investigative interview training, Lamb et al. (2002) compared four training regimens: (1) theory only, with no opportunity for practice; (2) theory and practice, in structured modules; (3) theory and practice based on the NICHD protocol and monthly *group* meetings with a supervisor, and (4) theory and practice based on the NICHD protocol, *individual* posttraining written feedback, and monthly group meetings with a supervisor. The latter two conditions outperformed the first two, as demonstrated by an increase in the use of open questions and appropriate use of closed questions. This better interview performance was also found to elicit more information from children in their free-narrative responses. No difference was observed between the latter two conditions, suggesting that group feedback might be as effective as feedback given on an individual basis.

Although effective training incorporating both theory and practice has been found to improve the quality of investigative interviews in the short term, the use of best-practice skills declines quickly. Studies that have measured performance prior to, immediately after, and then well after the completion of a course shows that this skills fade is especially pronounced in the absence of supervision or continued practice in maintaining these skills (for reviews, see Powell, Fisher, & Wright, 2005; St.-Yves et al., 2014).

Given the critical role of reliable witness evidence in the pursuit and delivery of justice, further research and investment is needed to generate an evidence base for best-practice training methods. Finding ways to encourage best-practice behavior, such as the use of structured protocols and aide-memoirs, so that it becomes second nature will help mitigate skills fade. For now, research shows that general best-practice guidelines alone are relatively ineffective in modifying interviewers' behaviors. Instead, investigative interview training must feature both theory and practice sessions. Furthermore, evidence suggests that improvements in interviewing practice occur reliably only when training courses involve multiple modules distributed over time with repeated opportunities for interviewers to consolidate learning and to obtain feedback on the quality of the interviews they do conduct (Lamb, 2016). The use of structured interview protocols (e.g., NICHD protocol) appears to promote significant improvements in investigative interview performance over a longer duration, likely because of the operational guidance and directive support provided.

NEW DEVELOPMENTS IN INVESTIGATIVE INTERVIEWING

Over the past 10 years, a number of supplementary tools and techniques for eliciting information from witnesses and victims have emerged from research. These innovations, largely driven by the identification of gaps in practice or specific investigative needs, typically draw on existing best-practice approaches to investigative interviewing.

For example, the Self-Administered Interview (SAI[®]; Gabbert, Hope, & Fisher, 2009) was developed to address the serious challenge faced by investigators when an incident occurs for which there are numerous eye-witnesses (e.g., a terrorist attack, a large-scale major incident or accident, serious assault on a train). Any of these witnesses may hold potentially vital information about the incident and descriptions of the perpetrators (i.e., information that will provide critical leads for the investigation and/or compelling evidence in a trial). However, investigators may not have the resources in terms of time, expertise, or personnel to conduct interviews with many witnesses shortly after an incident. The SAI is a generic response tool in that it is suitable for obtaining information about a wide range of different incidents. It takes the form of a standardized protocol of instructions and open-ended questions and nonleading cues that enable witnesses to provide their own statements and is therefore ideal for use when restricted resources mean that a traditional interview is not possible. Empirical testing revealed that the SAI recall tool elicited significantly more information from witnesses with high accuracy rates. Furthermore, the initial completion of an SAI increased the amount of information provided by witnesses in a delayed interview (Hope, Gabbert, Fisher, & Jamieson, 2014). Subsequent research also showed that witnesses who completed an SAI were more resistant to misleading information encountered after an incident (Gabbert, Hope, Fisher, & Jamieson, 2012). Other research has noted an interesting transfer effect, such that reporting about one event using the SAI enhances subsequent reporting about another event (Gawrylowicz, Memon, & Scoboria, 2013). A recent meta-analysis (Pfeil, 2017) reporting the results for 15 empirical studies observed a substantial increase in the reporting of correct details for the SAI, with a large summary effect size ($d = 1.20$), comparable to the benefit found for the CI (see Memon et al., 2010). Analyses also suggested that this increase in reporting of correct details also transfers to a later witness interview ($d = 0.92$). Despite being a relatively new investigative tool for officers tasked with eliciting initial witness accounts, the SAI has been implemented effectively in a growing number of incidents involving multiple witnesses, including murders, shootings, assaults, and other major crime incidents (see Hope, Gabbert, & Fisher, 2011).

Dispensing with the linear verbal narrative common to most interviewing formats discussed so far, the time-line technique is a multimodal format designed to facilitate witness reporting about complex event

sequences (Hope et al., 2013; Kontogianni et al., 2018). Drawing on social survey methodologies (e.g., event history calendars) used previously to elicit information about autobiographical events (e.g., Belli, Stafford, & Alwin, 2009), this technique is a self-administered recall and reporting technique designed to optimize an interviewee's ability to recall information within a particular time period in sequence, to identify people involved, and to link those people with their specific actions. Hope et al.'s (2013) participants used a time-line-based reporting format and reported their account of a witnessed event on a "time line" of the relevant time period for the target event. Additional retrieval support was provided through the use of instructions and interactive reporting materials. Mock witnesses who provided their accounts about a multiperpetrator event using a time-line technique provided more (1) person-description details, (2) person-action details, and (3) sequence details than requesting a free report at no cost to accuracy. Testing also included the comparison of component elements of the time-line technique (i.e., instructions, reporting cards, visual time line; Experiment 2), but optimal performance was observed when the full time-line format was used.

Other innovative approaches to eliciting information, drawing on the way in which memory is organized, include the "category clustering recall" mnemonic proposed by Paulo, Albuquerque, and Bull (2016). This mnemonic is based on the general idea that recalling in "category clusters" might be effective because it is compatible with the way in which we use semantic categories to encode, organize, and recall information. The category clustering recall technique involves asking people to organize their recall into information categories (person details, person location details, object details, object location details, action details, conversation details, and sound details). In Paulo et al.'s (2016) study, participants watched a mock robbery video and were interviewed 48-hours later with either (1) an enhanced CI; (2) a revised enhanced CI, with category clustering recall instead of the change order mnemonic; or (3) a revised enhanced CI, with category clustering recall conjunctly used with "eye closure" (see Vredeveldt, Baddeley, & Hitch, 2014) and additional open-ended follow-up questions. Participants interviewed with category clustering recall reported more information without compromising accuracy (although eye closure and follow-up questions were not found to further benefit recall).

Despite a small number of innovations over the past 10 years or so, we agree with Fisher et al. (2014) that research efforts have largely focused on validation of existing methods rather than advancing the field in new theory-driven directions. We echo their call to researchers to turn their focus to the development of novel, flexible, theory-driven approaches for eliciting information in increasingly complex and dynamic investigative contexts. There should also be greater exploration of the wider requirement of ethical, efficient, and effective information elicitation techniques beyond policing contexts. Many of the techniques developed for investigative

interviewing could well be adapted or developed in novel ways for a variety of different contexts, such as elicitation of patient histories by medical professionals, investigation of occupational incidents, debriefing of intelligence sources, and reporting by operational staff such as law enforcement personnel and emergency responders.

CONCLUSION

Victims and witnesses deserve to be interviewed in a manner that is ethical, effective, and evidence-based by professionals who have been trained and are expected to conduct high-quality investigative interviews. Significant progress has been made over the past 30 years in generating an evidence base to support appropriate and effective investigative interviews. However, new challenges in witnessing and interviewing contexts—including (1) increased use of and access to social media, which is likely to result in increased sharing (and cross-contamination) of witness accounts, (2) the need for more effective intelligence gathering, (3) the likelihood of cross-cultural interactions and witness reluctance, and (4) increased pressure from governments worldwide to deliver more with fewer resources—present investigators in the police and allied professions with significant difficulties. Researchers need to be alert to these pragmatic challenges and engage in close collaborative work with investigative practitioners to address emerging challenges. More than ever, research on investigative interviewing and other applied topics must be conducted to high methodological standards, including the recruitment of adequate sample sizes to test well-defined, theory-driven hypotheses, inclusion of relevant control groups, and use of appropriate statistical analyses (see Hope, 2016, for further discussion). Ultimately, the apprehension of the guilty, the prevention of future crimes, and the delivery of justice may well rest on an interviewer succeeding in eliciting a detailed, accurate, reliable account from a witness. For this reason, more than any other, there is no room for complacency with respect to either research or practice in investigative interviewing.

ACKNOWLEDGMENT

Lorraine Hope's work in writing this chapter was partially funded by the Centre for Research and Evidence on Security Threats (ESRC Award: ES/N009614/1).

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