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Interviewing Victims and Witnesses of Crime

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The problem

Research on the investigative process has emphasized that the completeness and accuracy of eyewitness accounts are important factors in whether or not the cases are solved. Eyewitness reports of crimes, however, are known to be incomplete, sometimes unreliable, and often at least partially incorrect.

Although the quality of a victim's or witness' report is important to effective investigation, police investigators often have minimal guidance in developing interview techniques that facilitate retrieving memories of a criminal event. The typical police investigator must rely on the limited in-

terview techniques acquired during the initial recruitment training, on-the-job training, and intuition. The purpose of this research has been to identify and develop techniques police investigators can use to enhance the completeness and accuracy of eyewitness reports.

The volume of basic research studies on memory recall is immense. Most of this work, however, has little applicability to the victim or eyewitness situation because it was designed to help students learn from books and lectures. Most (but not all) victims and eyewitnesses, however, are so occupied with the event that they do not have time to try to learn or memorize details about a suspect at the time of the crime.

In the typical crime scenario, the events unfold rapidly under emotionally charged conditions. As a consequence, consciously controlled learning strategies are unlikely to be used. In practice, eyewitness memory can be enhanced only by developing techniques that improve the retrieval or search phase of memory.

The cognitive interview

The research summarized in this Research in Brief was designed to devise interview methods based on current memory theory to enhance the completeness and accuracy of eyewitness reports, and to test these methods under controlled, yet realistic, circum-

From the Director

Information is the lifeblood of a criminal investigation. The ability of investigators to obtain useful and accurate information from victims and witnesses of crimes is crucial to effective law enforcement. Yet full and accurate recall by eyewitnesses is difficult to achieve. Even experienced investigators may not be familiar with new developments in interviewing that can elicit useful leads.

Police training—both at the recruit and inservice level—generally has focused on the mechanical aspects of the eyewitness interview. Most police investigators are taught to rely on the tradi-

tional "who, what, where, when, and why" questions in interviewing. Such training may equip police investigators as report takers, but it does not give them the foundation they need to be information gatherers.

Now, by tapping the expanding knowledge about how our memories work, researchers for the National Institute of Justice have devised step-by-step procedures that significantly increase the amount of useful and correct information investigators can obtain from eyewitnesses.

The procedures are easy to learn and can be readily adopted in routine police interview procedures. These cognitive interview techniques also appear to

avoid the legal concerns that surround the use of another interviewing technique, hypnosis.

The Institute is currently sponsoring research to test the cognitive interview approach in actual, day-to-day police investigations. We expect the results will help refine the techniques outlined in this Research in Brief. In the meantime, the Brief describes the procedures so police investigators and training staffs can begin to use this new tool to improve the quality of information provided by eyewitnesses to crime.

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stances. Both general and specific memory jogging and memory guidance techniques were identified and combined to form the cognitive interview.

The theoretical underpinnings of the research are based on two generally accepted principles of memory. First, a memory is composed of a collection of several elements. The more elements a memory retrieval aid has in common with the memory of the event, the more effective the aid is. Second, a memory has several access routes, so information that is not accessible with one retrieval cue may be accessible with a different cue.

In standard police interviews, victims and witnesses are asked first to give a narrative report of what happened in their own words. The investigator then follows up on the narrative report with questions intended to enhance the completeness of the report.

Primary techniques of the cognitive interview

The cognitive interview consists of four general methods for jogging memory plus several specific techniques. The four techniques outlined below are explained to the witness before the narrative report. The first two methods attempt to increase the overlap of elements between the stored memory and retrieval cues. The last two methods encourage using many retrieval paths.

1. Reconstruct the circumstances: In this method the investigator instructs the witness to reconstruct the incident in general: "Try to reconstruct in your mind the circumstances that surrounded the incident. Think about what the surrounding environment looked like at the scene, such as rooms, location of furniture, vehicles, the weather, lighting, any nearby people or objects. Also think about how you were feeling at the time and think about your reactions to the incident."

2. Report everything: The investigator explains that some people hold back information because they are not quite sure that the information is important. The witness is asked not to edit anything, even things that may not be important.

3. Recall the events in different order: The instruction may be: "It is natural to go through the incident from

beginning to end. However, you also should try to go through the events in reverse order. Or, try starting with the thing that impressed you the most in the incident and then go from there, going both forward and backward in time."

4. Change perspectives: In this method witnesses try to recall the incident from different perspectives that they may have had at the time or adopt the perspectives of others who were present during the incident. Witnesses may be instructed to place themselves in the role of a prominent character in the incident and think about what he or she must have seen.

Mentally reconstructing the circumstances that surrounded a to-be-remembered event has been shown to be a powerful memory aid in numerous laboratory experiments. This technique is certainly easier than physically returning to the scene of a crime, and it may be preferable given that the scene of a crime can change.

Asking the victim or witness to be complete has two positive effects. First, many people do not have a good idea of what information has investigative value. Second, the effort to be complete sometimes leads one to remember an important detail through association with something seemingly unimportant.

While the events should be recalled initially in the order in which they occurred, recalling the events in reverse order forces the victim or witness to examine the actual memory record looking for benchmarks. When events are recalled in chronological order, some people reconstruct in their minds what must have happened based on prior knowledge of similar crime scenarios. This sometimes leads to incomplete or even inaccurate reports.

Mentally changing perspectives while recalling an event also appears to enhance the completeness of reports. In many cases, the victim or witness had a variety of perspectives on the incident, but people tend to report what they remember from one, static perspective.

Additional techniques

In addition to the four general methods, the cognitive interview also uses a series of specific techniques to help an

investigator elicit specific items of information following the narrative phase of an interview. The investigator might suggest the following:

1. Physical appearance: Did the suspect remind you of anyone? If you were reminded of someone, try to think of why. Was there anything unusual about the suspect's physical appearance or clothing?

2. Names: If you think that a name was spoken but you cannot remember what it was, try to think of the first letter of the name by going through the alphabet. Then try to think of the number of syllables.

3. Numbers: Was a number involved? Was it high or low? How many digits were in the number? Were there any letters in the sequence?

4. Speech characteristics: Did the voice remind you of someone else's voice? If you were reminded of someone, try to think of why. Was there anything unusual about the voice?

5. Conversation: Think about your reactions to what was said and the reactions of others. Were there any unusual words or phrases used?

Some investigators may have been using some of these techniques for years. However, as described below, three separate studies have found that, when all the techniques are used together, the cognitive interview is effective for enhancing eyewitness memory.

Experimental tests

The cognitive interview was first evaluated positively in a preliminary experiment we conducted. In that research, actors disrupted a classroom, and student eyewitnesses were then asked to complete a questionnaire about the incident.

Students who were instructed in the four general memory retrieval methods at the time of the test recalled more correct information than did subjects who were told simply to keep trying to remember more information. Furthermore, the cognitive interview did not produce more incorrect information, nor did it lead to greater eyewitness confidence in the incorrect information.

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To enhance the generalizability of the initial tests of the cognitive interview, further experiments were conducted. These experiments used emotionally arousing Los Angeles Police Department training films of simulated violent crimes. The eyewitness-recall protocols were collected using interactive interviews rather than fixed questionnaires. And the interviews were conducted by trained and experienced law enforcement investigators.

The first major study compared the cognitive interview to two interview procedures that have been used by police—the hypnosis interview and the standard police interview. Eighty-nine UCLA students were interviewed 48 hours after viewing one of the films, generating a total of over 120 hours of recorded interviews for analysis.

As table 1 shows, both the cognitive interview and the hypnosis interview elicited significantly more correct information from the student subjects than did the standard police interview. Table 2 shows that this result was obtained even for the 20 most critical facts with the greatest investigative value. Furthermore, there was no significant increase in incorrect or partially constructed (confabulated) information.

Table 1. Facts recalled in three types of interviews

	Type of Interview		
	Cognitive	Hypnosis	Standard
Number correct	41.15	38.00	29.40
Number incorrect	7.30	5.90	6.10

Table 2. Recall of the 20 most critical facts

	Type of Interview		
	Cognitive	Hypnosis	Standard
Number correct	12.0	12.3	9.2
Number incorrect	1.1	1.7	1.4

Neither differential questioning time, the number of questions asked, nor heightened subject or interviewer motivation could explain the results. We therefore concluded that the memory-enhancement effects lie in the guided memory components of the cognitive and hypnosis interviews.

Although the cognitive and hypnosis procedures were equally effective, the cognitive interview can be learned and applied with relatively little training while training in hypnosis requires a minimum of 40 hours. In addition to the time saved in training, the results showed that much less time was required to instruct a witness in the general cognitive techniques than to perform a hypnosis induction. Thus, the cognitive interview is a workable memory-enhancement technique that is both effective and efficient.

It remains to be determined if hypnosis is preferable in cases where the victim or witness has sustained severe trauma. Such an experiment is ethically impossible to conduct in a controlled study. But there have been two undocumented, anecdotal cases reported from the field in which the cognitive interview was said to be successful in questioning eyewitnesses to violent crimes.

In the previous tests, the memory retrieval techniques were developed and evaluated primarily in student samples. To examine the effectiveness of the cognitive interview in a nonstudent population, 51 volunteers with an average age of 32 were paid to be subjects. The methodology was the same as in the first experiment, except that hypnosis was not studied.

The results, summarized in table 3, provided a second replication of the memory-enhancement qualities of the cognitive interview. As in the previous experiment, the cognitive interview elicited significantly more correct information than the standard police interview without an increase in incorrect or confabulated information. Thus, the cognitive interview was effective when the subject population was more representative of those who are likely to be victims or eyewitnesses of crime.

Table 3. Memory recall of nonstudent witnesses

	Type of Interview	
	Cognitive	Standard
Number correct	41.67	35.58
Number incorrect	8.57	8.61

While it is important to demonstrate that the cognitive interview is an effective and reliable memory-enhancement

device, it is also necessary, from a legal perspective, that the scientific community accept the cognitive interview as a reliable tool, free of technical problems potentially associated with memory retrieval.

The cognitive interview has been reviewed by trial lawyers, but it has not as yet been tested in appellate courts. However, it appears to avoid the legal problems surrounding the use of forensic hypnosis. Since 1979, appellate courts in many jurisdictions have refused to admit hypnotically elicited testimony at trials.

One criticism of forensic hypnosis has been that it may heighten the negative effect on eyewitness memory of asking leading questions. The fourth test of the cognitive interview was to determine whether these techniques affect a witness' responsiveness to leading questions.

The research found that law enforcement professionals ask very few leading questions, but in this particular test we intentionally asked leading questions. In the staged scenario, two men entered a classroom and stole a slide projector. One of the men carried a blue backpack. When the students were questioned 48 hours later, some were asked near the beginning of the interview, "Was the guy with the green backpack nervous?" Then, near the end of the interview they were asked, "What color was the backpack?"

The students who were questioned using the cognitive interview were less likely to change the color of the backpack from blue to green than were students who were questioned using the standard interview. Thus, the cognitive interview not only enhances memory recall, but it appears to reduce, in some cases, the negative effects of misleading questions should an investigator inadvertently ask them.

A fifth experiment was conducted to determine whether one or more of the methods used in the cognitive interview could be eliminated to shorten the procedure. Each subject in this study was shown a 4-minute film of a violent bank robbery and then was asked to give a narrative account of what they had seen.

Prior to the recall test, some subjects were instructed in one, and only one,

of the four general retrieval techniques of the cognitive interview; some subjects were instructed in all four methods (the full cognitive interview); and others were instructed simply to try very hard to remember.

The pattern of results was clear. Witnesses who were instructed in any one of the four general retrieval techniques were able to recall more correct information than witnesses who were not instructed in any technique. But none of the four methods alone was as effective as the full cognitive interview.

Thus, each technique in the procedure is useful. Although one would want to make the interview as brief as possible, the technique as it presently exists is efficient. The number of incorrect bits of information generated did not differ across the conditions in this experiment. Therefore, this study provided the fourth replication of the success of the cognitive interview.

Conclusions

In five experiments, the cognitive interview was found to increase the amount of correct information elicited from eyewitnesses without increasing the proportion of incorrect information generated. The interview methods were successful with lesser educated witnesses, nonstudents, as well as with student witnesses, and for eliciting memories of real-life incidents as well as of films of violent crime scenarios.

From our results, it appears that the cognitive interview techniques could be incorporated into the interviews of law enforcement investigators with a minimum of additional training. Eyewitnesses can learn the methods quickly, thus saving valuable time for investigators, who often have demanding caseloads. Police investigators who participated in the experiments, and others who have learned of the cognitive interview, already have begun to incorporate the memory jogging

techniques into their own interview procedures.

The logical and important conclusion of this work will be the implementation and evaluation of the cognitive interview in the field. Although the present results are encouraging, the skills of the interviewer may be a major variable in the success of the technique. Field research now in progress sponsored by the National Institute of Justice should provide important and necessary insights for effective training and use of the cognitive interview.

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