

Chapter 17

Memory Practice in Society: Eyewitness Memory in Children and Forensic Interviews

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Abstract Child witness memory is the focus of this chapter. We first described the dispositions of child memory for experienced events, and then introduced forensic/investigative on which method was designed to elicit as accurate information as possible on trying to reduce the child's stress at being interviewed. The topic includes the effects of training in forensic interviews on the quantity and quality of information obtained from interviewees; effects of training on professionals' perception of information to collect and convey in the forensic interviews; and evaluation of child witness testimony obtained through closed questions and open-ended questions. Finally, we discussed the need for a multidisciplinary team approach to make the most of forensic interviews.

Keywords Child witness memory • Forensic/investigative interviews • Training • Effects and evaluation of forensic/investigative interviews

17.1 Child Witness Memory

In this chapter on memory practice in society, the focus is on child witness memory. It has been shown repeatedly that children have poor memories. Younger children learn fewer things than older children, and also remember less than older children. They are more likely to be misled than older children, and when being misled, they are less likely to be aware of being misled (Lamb et al. 2015; Naka 2016a for review). Such constraints may be linked to brain development. Shing et al. (2010) suggested that the strategic components of memory functions, namely, the cognitive

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control operations to encode, maintain, and retrieve memories related to the frontal cortex grow slower than the automatic components that are mediated by the medial temporal region. Schacter et al. (1995) argued that because of the underdevelopment of the pre-frontal lobe, children may present symptoms that are similar to those who suffer brain impairment such as distortion of memory, distortion of orders, and suggestibility. However, the latter is not always the case. Although absolute quantity and quality of memory may be inferior in children, their memories can be restored better in some ways than others. For instance, in one experiment we conducted, second and fifth grade children were presented with a video clip and then asked to remember what they had seen in the video in one of four conditions: free recall, free recall with context reinstatement (i.e., closing their eyes for 1 min so that they can remember and then engage in free recall), questioning, or an interview with open-ended questions followed by when, where, who, etc. (WH) questions and closed questions, if necessary. Results showed that both older and younger children produced a greater amount of accurate information in interviews than in the other conditions, even though the older children generally produced more information than the younger ones. The worst condition was the questioning, where both the older and younger children provided the minimum amount of information necessary to answer the questions. No age differences were found in this condition. These results support the general findings that open-ended questions as opposed to closed questions elicited more accurate information (Lamb et al. 2008).

17.2 A Better Way of Eliciting Child Witness Memory

Conducting forensic or investigative interviews is the method employed to elicit as much accurate information as possible from alleged child victims and witnesses, while trying to reduce their psychological burden as much as possible. To minimize the chance of leading or contaminating memory, interviewers were encouraged to use open-ended questions to elicit free narratives from the interviewees (Ministry of Justice 2011; Lamb et al. 2007a, b). The *open-ended questions* that are known to be efficient were as follows (Lamb et al. 2007a, 2008; Naka 2011 for Japanese):

Invitation: Tell me everything that happened.

Time segmentation: Tell me what happened from time A until time B.

Cued recall: Tell me more about [what the interviewee said].

Follow-up: And then? What else?

Interviewers are discouraged to make use of *WH questions (directives)* until the last phase of the interview (Lamb et al. 2008), because such questions take the control of the conversation away from the interviewee. In other words, the interviewer takes control of the conversation by asking questions about what he/she wants to hear rather than let the interviewee talk freely. Furthermore, WH questions direct the interviewee's focus to the specific aspects of an event, that is, when, where, who, etc. This may discourage the interviewee from relating other aspects of an event.

Closed questions (option posing) or multiple-choice questions that are used to elicit only “yes” or “no,” or “A” or “B” are used only when necessary. Furthermore, interviewers are discouraged from using leading or suggestive questions (e.g., You saw it, didn’t you?), which may mislead the interviewee.

Forensic interviews are structured in a flexible manner so as to motivate the child to share more accurate information. Typically, an interviewer introduces herself/himself and explains the purpose of an interview. This is followed by ground rules such as “Tell me only the truth”; “If you do not understand my question, tell me you don’t understand”; “If you don’t know the answer, tell me you don’t know”; and “If I made a mistake, tell me it was wrong.” Then, to build a rapport, the interviewer asks the child what she/he likes to do; this is followed by episodic memory training where the child is asked to describe what happened from the time she/he woke up until the time she/he came to see the interviewer (e.g., Lamb et al. 2007a, b).

17.2.1 Benefits of Using Forensic Interviews

As described previously, forensic interviewing is a promising way of eliciting more accurate information from child victims and witnesses. However, it is not easy to conduct such an interview. It is important for professionals to learn the skills and become acquainted with them.

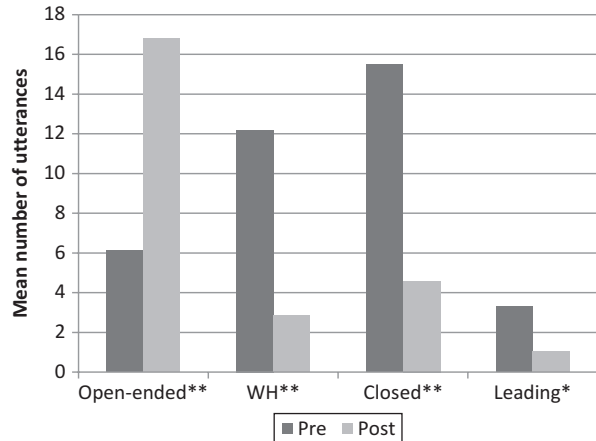
Besides conducting research on the basics of memory and communication, we developed a training program for forensic interviews (e.g., Naka 2014a, 2015). In the first training course for professionals in 2008, we invited social workers working at the Child Guidance Center of Hokkaido University. It was a 3-day course, comprising two sessions with an interval of 1 month. Once we received feedback from the trainees, we improved our program. In the meantime, the Japanese police agency and prosecutor’s office started to video-record suspects, increasing their attendance at our training. By the end of 2016, we had trained approximately 4800 professionals.

There are several benefits of using forensic interviews. First, the interviewing method increases the quantity and quality of information elicited from interviewees. Second, forensic interviews may ensure that professionals are more focused on what information to collect to establish a case. Third, free narratives to open-ended questions have been evaluated as being more credible than the answers to closed questions. Allow me to describe some studies conducted in my laboratory.

17.2.2 Quantity and Quality of Information

In the study described above (Naka 2011), the participants were 32 social workers and psychologists who worked at the Child Guidance Center in Japan. They took part in a training course conducted by the author based on the National Institute of Child Health and Human Development (NICHD) protocol. Before attending the

Fig. 17.1 Mean numbers of each question type (*top*) in pre- and post-training. *Indicates significant differences between pre- and post-training ($p < 0.05$); **Indicates significant differences between pre- and post-training ($p < 0.01$).



course, they received one of three videos via mail, each of which lasted approximately 1 min, and using which the participant conducted an interview using the video as a stimulus. That is, a volunteer (interviewee) watched the video without the interviewer (participant) watching it, and then the interviewer interviewed the interviewee on the content of the video. The procedure was also repeated after attending court (post). Different videos were used in the pre- and post-interviews. The video was counterbalanced between participants and pre- and post-interviews. The duration of the pre- and post-interviews were 999 s and 1070 s respectively; there was no significant difference between them.

In Fig. 17.1, the pre- and post-interview results are shown.¹ The number of open-ended questions increased, whereas the number of WH, closed, and suggestive questions decreased from pre- to post-interviews.

In Fig. 17.2, the amount of speech elicited by children in terms of letters² is depicted. More information was elicited by means of open-ended questions in the post-interview. Although there was no time difference between pre- and post-interviews as mentioned previously, there was a significant increase in the amount of information elicited the mean number of letters in the pre-interview was 570.53, whereas that of the post-interview was 732.25.

We also counted the accurate details elicited in the pre- and post-interviews. The tentative analysis showed that the amount of accurate information in the post-interview (29.09) was significantly greater than that in the pre-interview (24.06), whereas the amount of inaccurate information in the post-interview (2.09) was

¹ Figures 17.1 and 17.2 show the results of reanalysis of data from Naka (2011).

² We counted the number of letters instead of words. For instance, “私は男を見ました” (I saw a man) is counted as eight. The reason we used the number of letters is that it is not easy to count words in Japanese: we need to divide a sentence into words manually or by running a computer program (e.g., 私は/男/を/見/ま/した). Because the number of letters can be considered to correlate with the number of details, we used the number of letters, which can be counted by Excel functions.

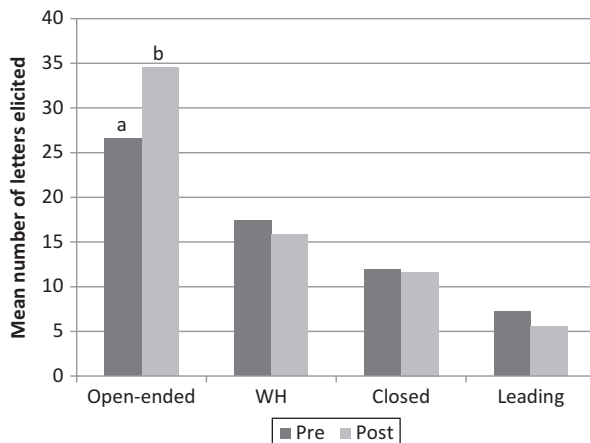


Fig. 17.2 Mean number of letters elicited by each question type (*bottom*) in pre- and post-training. **(a)** Before the training (pre), open-ended and WH questions elicited more information than leading questions ($p < 0.01$). WH questions elicited more information than closed questions ($p < 0.01$). Closed questions elicited more information than leading questions ($p < 0.01$). **(b)** After the training (post), an open-ended question elicited more information than WH questions ($p < 0.05$), closed, and leading questions ($p < 0.05$). WH questions elicited more information than closed and leading questions ($p < 0.01$). Closed questions elicited more information than leading questions ($p < 0.01$).

significantly less than that in the pre-interview (3.03). Thus, information elicited by the forensic interview increased in quantity and quality.

17.2.3 Information to Collect

Second, forensic interviews can ensure that professionals focus on collecting more relevant information to establish the case (Naka 2014b). The purpose of forensic interviews is to collect information on a specific event, that is, it involves an individual's episodic memory. However, we noticed in the training and in the real interviews that the interviewers' attention could shift from episodic memory (i.e., what happened) to more general, script-like memory (i.e., what usually happens). The latter information may be important for social work, but priority should be given to collecting the episodic memory of an event.

Furthermore, we noticed that interviewers sometimes confused forensic interviews with counseling or therapy. In such a case, an interviewer may tell a child, "You are not wrong," and "I am sorry to ask details. You don't have to say anything if you don't want to." However, forensic interviews are not a form of counseling and therapy (Home Office 1992). The aim of forensic interviews is to elicit facts rather than soothe the interviewee's subjective feelings and emotions. If there is anything

that an interviewer should convey to the child, it is the ground rules rather than empathy, compassion, comments, and opinions.

We conducted a study through a questionnaire to ascertain whether the training of forensic interviewers ensures that professionals are more focused on the facts rather than on semantic or script-like memory and subjective feelings. The participants were 39 clinical psychologists, 33 social workers, and 39 police officers and prosecutors. They were shown a mock case in which a child said that she was hit by her father. The professionals were asked to rate the importance of 15 facts that had to be collected, in addition to the importance of 12 facts that they had to convey. The 15 facts included information about the father (age, job, characteristics, intention, etc.), the event of hitting (the name of father, time, place, body part being hit, etc.), and routines and circumstances (last instance of hitting, one time or more than one time, routine of hitting, child's feelings, family information, needs of the child, etc.). The 12 facts included the instructions and ground rules ("Tell me the truth"; "If you don't understand, tell me you don't understand."; "If you don't know the answer, tell me you don't know"; "Correct me if I said something wrong"; "Tell me everything,." etc.) and the interviewer's opinions and compassion ("If you don't want to talk, you don't have to talk"; "You are not wrong"; and empathy, comments, decisions, promises, etc.)

Before and after the training, the participants completed the questionnaire. As shown in Fig. 17.3 (top), after the training, the participants became more focused on the information about the event rather than that about the father, his routines, and circumstances. In Fig. 17.3 (bottom), the information that had to be conveyed is shown. After the training, the participants rated the ground rules higher and the interviewer's opinion and compassion lower. Thus, forensic interviews seemed to assist professionals to focus on more relevant information to establish a case.

17.2.4 Evaluation of Testimony

As described previously, open-ended questions are more likely to elicit accurate information than closed questions (Lamb and Fauchier 2001; Lamb et al. 2007a, b; Naka 2012; Orbach and Lamb 2001). To determine whether lay people actually evaluated the information elicited by open-ended questions as being more credible, we conducted an experiment using a mock interview. The participants were 92 undergraduates (Naka 2013, 2017).

There were two versions of the mock interview. Although the information provided in both versions of the interview was the same, in one condition (open-ended question condition [OQ]), a child provided the information to open-ended questions. In the other condition (closed question condition [CQ]), the interviewer provided information by asking closed questions. This is shown in the following excerpts:

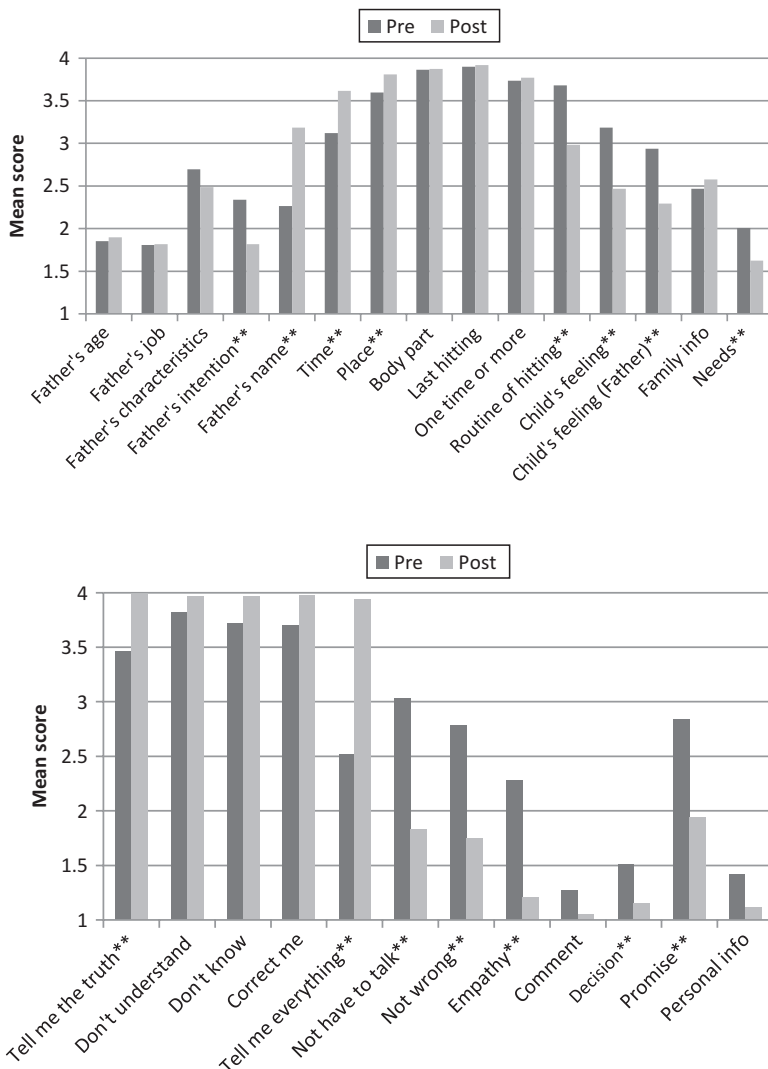


Fig. 17.3 Professionals' perspective on the information to be collected (*top*) and information to be conveyed (*bottom*). *F* denotes father, *C* denotes child. **Indicates the significant differences between pre- and post-training ($p < 0.01$)

OQ condition.

Interviewer: What did you come here for?

Child: To talk about Father.

Interviewer: What about Father?

Child: Father did Sachan (the name of victim) "Ei!" (kicking action) with foot.

Interviewer: Where?

Child: In the tummy.

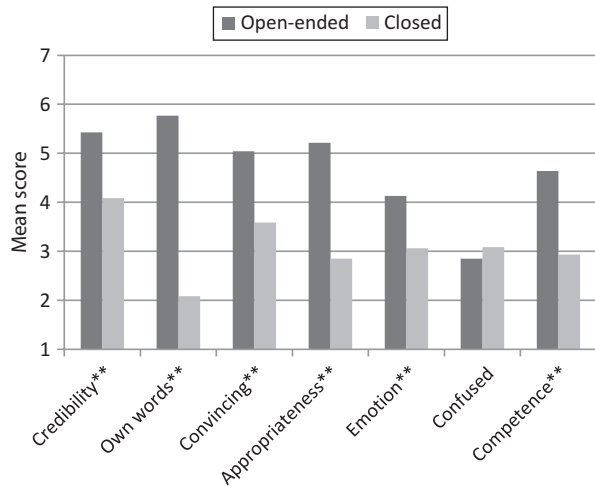
Interviewer: What happened then?
 Child: Sachan cried.
 Interviewer: Then what happened?
 Ei! Again.
 ...

CQ condition.

Interviewer: Did you come here to talk about Father?
 Child: Yes.
 Interviewer: Did Father do 'Ei!' to Sachan with foot?
 Child: Yes.
 Interviewer: In the tummy?
 Child: Yeah.
 Interviewer: Then did Sachan cry?
 Child: Right.
 Interviewer: Did he do 'Ei!' again?
 Child: Yes.
 ...

After being presented with either of the interviews,³ the participants were asked to decide whether or not the father was guilty or not, and determine the sentence.⁴ Then, they were asked to rate the interview on a seven-point Likert scale. The items

Fig. 17.4 Evaluation of child testimony in the open-ended questions (OQ) and closed questions (CQ) conditions. **Indicates a significant difference between open-ended and closed questions ($p < 0.01$)



³ There were three conditions in the presentation: a closer perspective, a distant perspective, or no picture. Because the manipulation is beyond the scope of this article, we collapsed the data and described the results for the type of questions.

⁴ In Japanese Saiban-in Seido (lay judge system), lay judges deliberate on the case with (a) professional judge(s) and make decisions regarding the verdict of guilty or not guilty, before deciding on the sentence.

included the child's credibility, whether the child used her own words, how convincing the testimony was, the appropriateness of the interview, the participant's emotive reaction on hearing the testimony, if the child's testimony was confusing, and the competence of the child.

The results showed that a guilty judgment was significantly higher for the OQ condition rather than for the CQ condition (0.91 vs 0.66), although there was no difference in the sentence. As shown in Fig. 17.4, the ratings for credibility, using own words, convincingness, appropriateness, emotion, and competence were significantly higher in the OQ condition than in the CQ condition. Lay participants seem to be aware of the difference between the information elicited by open-ended questions and that elicited by closed questions.

17.3 Necessity for Cooperation

It appears that forensic interviews are a promising way of eliciting and presenting memory in the judicial context. However, there remains the problem of repeated interviews. In Japan, child victims are typically interviewed in a medical center or at the Child Guidance Center where they are first brought in, and then by the police, followed by the prosecutor's office, and finally in court. It is said that a child needs to be interviewed 10-20 times in total; this could confuse the child's memory, and may cause psychological sensitization (Fulcher 2004). To prevent such problematic procedures, a multidisciplinary/multi-agency team approach is inevitable.

To grasp the professionals' perception of a multidisciplinary team (MDT), we conducted a survey in 2013 and 2014 in which we asked the professionals to write down the factors that they thought hindered the MDT approach ($n = 83$ and $n = 103$ respectively) (Naka 2016b). Responses were categorized using the KJ (Jiro Kawakita) method. Five major categories emerged: "the lack of system" (lack of law and system, lack of directions of organization, etc.); "differences in agencies" (differences in goals, positions, methods, etc.); "lack of knowledge and understanding" (lack of knowledge, understanding, awareness, skills, etc.); "practical reasons" (lack of time, people, and apparatus, etc.); and "no problems." The percentage of entries in each of the above categories were 0.29, 0.16, 0.19, 0.10, and 0.09 in 2013, and 0.43, 0.12, 0.40, 0.06, and 0.03 in 2014; this suggests that a lack of system is a major barrier to promoting collaboration.

In 2015, there was a breakthrough. On 28 October 2015 the Ministry of Health, Labor and Welfare (MHLW), the National Police Agency, and the Supreme Prosecutors Office issued papers to recommend a *cooperative interview* with a child victim or witness (Ministry of Health, Labor and Welfare 2015; National Police Agency 2015; Supreme Public Prosecutors Office 2015). The paper issued by police states:

"In cases where interviews are conducted repeatedly, a child might undergo an excessive mental and physical burden. In addition, children's characteristics of being easily affected by leading or suggestions cause suspicion of the credibility of the statement.

...In order to consider an interviewing method that contributes to reducing the child's burden and to guarantee credibility, cooperation between the prosecutors and child guidance offices shall be strengthened."

This recommendation may lessen the disadvantage of a "lack of system" and foster collaboration.

17.4 Further Problems

Although three agencies pictured a future system for collaboration, specific methods of collaboration are left for individual prefectures and counties. According to the paper issued by MHLW (2013), the cooperative interview is a forensic interview conducted by an interviewer representing one of the three agencies, with professionals from the other two agencies sitting as monitors to support the interview in the monitor room (MHLW 2015). However, it does not specify who should serve as the interviewer.

Social workers may say that they want to conduct an interview because not all the cases reported to the Child Guidance Center result in criminal procedures. Police officers may want to be interviewers as well, because they are entitled to initiate a criminal investigation (Criminal Procedure Code, 189(2)). However, in Japanese criminal proceedings, prosecutors also interview victims, witnesses, and suspects to decide whether they should go to court. The statements made by prosecutors have more evidential power than those made by the police or other professionals (Criminal Procedure Code, 320(2)). Thus, a prosecutor may declare that he/she should be an interviewer. One solution is to conduct a forensic interview in a team that have been collaborating for a long period, and not just a group of people working together. If they work as a team to plan and conduct an interview, that is, the interviewer elicits information by free narratives and the others support the interview by checking what information was and was not obtained, and by helping the interviewer as it progresses, then who becomes an interviewer may not be a big issue.

17.5 Conclusion

Although we are still at the initial stages, memory research in the field and the laboratory seem to be one of key factors needed to realize a better system for dealing with human memory in the real world.

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