

DRO

This is the published version:

Powell, Martine B, Benson, Mairi S, Sharman, Stefanie J, Guadagno, Belinda and Steinberg, Rebecca 2013, Errors in the identification of question types in investigative interviews of children, *International Journal of Police Science and Management*, vol. 15, no. 2, pp. 144-156.

Available from Deakin Research Online:

<http://hdl.handle.net/10536/DRO/DU:30058925>

Reproduced with the kind permission of the copyright owner.

Copyright : 2013, Vathek Publishing

Errors in the identification of question types in investigative interviews of children

Martine B. Powell[‡], Mairi S. Benson[†], Stefanie J. Sharman[†],
Belinda Guadagno[†] and Rebecca Steinberg[†]

[‡](Corresponding author) School of Psychology, Deakin University, 221 Burwood Hwy, Burwood, Victoria 3125, Australia. Tel: +61 3 9244 6106; email: martine.powell@deakin.edu.au

[†]School of Psychology, Deakin University, Burwood, Australia

Submitted 13 June 2013; accepted 3 October 2013

Keywords: investigative interviews, interview training, question types, practice

The authors are academics based in the School of Psychology, Deakin University, with a particular research interest in investigative interviewer training.

ABSTRACT

This study examined the incidence and nature of the errors made by trainee coders during their coding of question types in interviews in which children disclosed abuse. Three groups of trainees (online, postgraduate and police) studied the coding manual before practising their question coding. After this practice, participants were given two-page field transcripts to code in which children disclosed abuse. Their coding was assessed for accuracy; any errors were analysed thematically. The overall error rate was low, and police participants made the fewest errors. Analysis of the errors revealed four common misunderstandings: (1) the use of a 'wh' question always denotes a specific cued-recall question; (2) 'Tell me' always constitutes an open-ended question; (3) open-ended questions cannot include specific detail; and (4) specific questions cannot elicit elaborate responses. An analysis of coding accuracy in the one group who were able to practise question coding over time revealed that practice

was essential for trainees to maintain their accuracy. Those who did not practise decreased in coding accuracy. This research shows that trainees need more than a coding manual; they must demonstrate their understanding of question codes through practice training tasks. Misunderstandings about questions need to be elicited and corrected so that accurate codes are used in future tasks.

BACKGROUND

When suspected child abuse is reported to law enforcement, authorised members of the police or a child protection organisation conduct an investigative interview with the child. These interviewers are usually from an investigative unit specifically set up to handle child abuse and/or sexual assault matters. In many jurisdictions, the interview is recorded and used as an evidentiary, as well as an investigative tool (ie, it becomes the child's evidence-in-chief should the matter proceed to court). The investigative interview is therefore of paramount importance, particularly for its evidentiary purpose: an effective interview can decrease the amount of time a child must

spend in court, and can also provide the prosecution with a valuable piece of evidence from the child, who is often the only prosecution witness to the alleged offence.

To ensure that evidence obtained from a child during an investigative interview is both accurate and admissible in court, interviewers typically complete a training course. These training courses are usually based on internationally accepted best-practice protocols that have resulted from decades of controlled research in both field and laboratory settings (see, eg, Lamb, Orbach, Hershkowitz, Esplin, & Horowitz, 2007). The central aim of all investigative interviewer protocols is to elicit the most comprehensive narrative possible from the child about the alleged offence, and it is universally accepted that asking open-ended (rather than specific) questions is the best way to achieve this aim (Lamb et al., 2007; Ministry of Justice, 2011; Powell, 2008; Powell, Fisher, & Wright, 2005). Open-ended questions are defined as those that deal with broader topics, encourage elaborate responses and do not assume detail (Poole & Lamb, 1998; Powell & Snow, 2007). The utilisation of these questions is particularly important when interviewing children; their language and cognitive abilities are not as well developed as those of adults. As a consequence, child interview guides tend to classify questions according to two dimensions: the degree of elaboration *and* the degree to which they dictate what specific information needs to be recalled (children are more suggestible than adults and they often attempt to answer highly focused questions even when they have no recollection of the detail requested; Ceci & Bruck, 1993). The adult literature generally classifies questions as being open or closed depending on whether they were designed to elicit an elaborate response (Fisher & Geiselman, 1992).

It is imperative for training programmes that teach investigative interviewing to be

based on interview frameworks that allow children to accurately describe their experiences. However, for training programmes to be as effective as possible, trainee investigative interviewers must also be provided with the tools to apply the appropriate interview frameworks (Powell, 2008). Evaluation research has shown that adherence to open-ended questions is difficult for interviewers (Lamb, Hershkowitz, Orbach, & Esplin, 2008; see Powell et al., 2005, for review). This difficulty reflects several unique characteristics of the investigative interview process, including the specificity of the information required from children, the unfamiliar nature of the open-ended discourse style and the ways in which children typically recall offences (Powell & Wright, 2008).

In our role as trainers of investigative interviewers, we have used a particular method to support trainee interviewers in acquiring best-practice interviewing skills. This method is to teach trainees to code standardised forensic interview transcripts based on a classification system developed in our training unit (see Appendix 1). Our classification system, founded on internationally accepted protocols, establishes a code for each question and statement type uttered by an interviewer when conducting an investigative interview. Coding describes the process of attributing these classification types, and is a useful way for researchers to measure whether the interviewer has adhered to best-practice interviewing techniques (ie, used as many open-ended questions as possible, and the right type of open-ended questions).

In a training context, coding takes on a particularly salient usefulness, both for the trainee and the trainer. More broadly, it helps trainees become familiar with the language of the training programme, thus enabling clear communication. It also gives trainees the skills to measure their performances over time, during training and when

they conduct interviews in the field. In fact, in a previous study that examined the perceptions of trainee interviewers who had the opportunity to experience (within a single training forum) several different practical tasks, trainees called question coding a vital learning experience (Powell & Wright, 2008), and there is empirical support for the association between interviewer coding competency and actual interviewer performance (Yii, Powell, & Guadagno, in press). More specifically, however, through an examination of trainees' errors, coding provides trainers with important feedback about where a trainees' conceptual difficulties lie (eg, in the difference between an open-ended and a specific question). In other words, a trainees' ability to code can be used as a measure of their knowledge of the different question types. Learning what the common misunderstandings are can help inform the development of clearer instruction guides that will minimise errors and facilitate better understanding among trainees.

Despite the established utility of coding exercises in interviewer training, there is currently no literature evaluating the incidence and nature of errors made by trainee coders. To date, interviewer evaluation research has focused on limitations in the use of different questions rather than the conceptual framework underpinning interviewers' categorisation of questions (Powell & Guadagno, 2008). Coding-related research must therefore adopt a qualitative approach to understanding the nature of errors and whether these differ across samples. The next step would be to understand the precise factors or training conditions that impact error rates and to trial the effectiveness of strategies to minimise these. The current study addresses the gap in our understanding of the nature of errors by providing a preliminary examination of the complexities of question categories (ie, the meanings and definitions ascribed to them)

through the eyes of diverse samples of trainee coders. We explore, from the perspective of trainee coders, the level of difficulty coding presents after being introduced to a coding manual, particularly in terms of the identification of question types.

METHOD

A condensed version of the coding manual that was given to participants in this study is provided in Appendix 1. The coding manual provides definitions and exemplar questions from each question category. The procedure for all participants involved studying the coding manual and engaging in practice quizzes in which participants had to determine the question types. Immediately after each question, participants were given the answer along with an explanation. After a practice period, participants' knowledge was assessed by coding a two-page mock transcript (based on actual field transcripts of children disclosing abuse) from a pool of 30 transcripts that included a representative sample of all questions, and items of various coding difficulty. The tests were marked immediately after completion and (for each error) the participants were required to indicate the nature of their error.

Research participants were recruited from three diverse samples (diverse sampling being integral to effective qualitative research), and each sample varied in its background and method of learning to code. The 'online group' included professionals recruited to undertake online training to improve their skills in interviewing. This group consisted of 24 police officers, 8 social workers and 7 psychologists, all currently working with children in a clinical or investigative capacity. For these participants, becoming familiar with the coding manual and engaging in activities and evaluation were conducted purely online. The remaining two participant groups engaged in

activities in a classroom format with an instructor. The 'postgraduate group' included 10 postgraduate university students who had no prior experience of coding or interview training. These students were attending coding training for the purpose of doing research work. The 'police group' consisted of 32 police officers, all partaking in face-to-face interview training at their police academy.

The police group did the coding assessment activity twice: four weeks after studying the coding manual and doing their assessment, participants in the police group returned to the academy where they completed a second test. Between tests 1 and 2, all were given the opportunity to practise their coding once a week for three weeks. Sixteen of the participants chose to practise — the tests were faxed to the researchers and then returned by fax to ensure they were done at equal intervals (one per week). Note that test transcripts were fully counterbalanced among participants and all tests and practice tasks were open-book (ie, participants could refer to the coding manual at any time).

For each transcript question, and for every participant in each of the sample groups, it was noted whether the participant wrote the correct question code. Content analysis was then performed on any text provided by participants that describing the nature of their errors. This involved grouping participants' reflections about each error thematically into specific categories which were then sorted and counted to identify the number of occurrences of each theme (Gifford, 1998). One of the researchers began by actively reading each of the transcripts in order to identify and understand the themes. These themes were subsequently discussed and debated with the first author and a coding protocol was developed in order to code the error types in a rigorous and comparable way (Dey, 1993).

RESULTS

Prevalence of errors across the three groups

Before examining the types of errors that participants made, we first examined the prevalence across the three groups. Overall, participants made 517 errors. The error rates from the online and postgraduate groups' tests and the police group's first test were low. Specifically, the proportion of errors (out of the total number of questions asked) made on the two-page transcript was 0.17, 0.20 and 0.14, for the three groups respectively.

A chi-square test revealed a significant relationship between group and error rate, $\chi^2(N = 2,669, df = 2) = 3.73, p < 0.002$, Cramer's $V = 0.070$. Follow-up tests revealed that the police group made fewer errors than the postgraduate group, $\chi^2(N = 1,694, df = 1) = 12.61, p < 0.001, V = 0.088$. There was a marginally significant difference between the police group and the online group: the police group made fewer errors, $\chi^2(N = 1,839, df = 1) = 3.73, p = 0.053, V = 0.047$. There was no difference in error between the online group and the postgraduate group, $\chi^2(N = 1,805, df = 1) = 2.86, p = 0.091$. These results suggest that all groups had low error rates, with the police group making the fewest errors of all.

Type of errors

Thematic analysis revealed that all the errors (irrespective of the participant group) could be divided into five categories. The most frequent type of error ($N = 374$ overall; 0.81, 0.72 and 0.57 of all errors for online, postgraduate and police groups, respectively) were superficial in nature. These resulted from lack of familiarity with the coding protocol (eg, forgetting a question definition or forgetting idiosyncratic rules that were particular to the coding protocol,

such as where in the transcript to commence coding, or whether an open-ended question could commence with the phrase ‘Can you’ or ‘Do you’).¹

With regard to the more substantive errors, four misunderstandings emerged: (1) ‘wh’ always denotes a specific cued-recall question, (2) ‘Tell me’ always constitutes an open-ended question, (3) specific questions cannot elicit elaborate responses, and (4) open questions cannot include precise detail. Each of these misunderstandings is described in turn.

Misunderstanding 1: ‘Wh’ always denotes a specific cued-recall question

In the coding manual provided to participants, specific cued-recall questions are referred to as ‘wh-’ questions, because they invite the child to report specific details about who, what, when, where and why. Participants seek these ‘wh-’ words out in questions and automatically code them as specific cued-recall. However, some open-ended questions may also include some words that commence with ‘wh-’; for example, ‘What happened then?’ and ‘What happened when you said that?’ These questions encourage recall of the next act or action in the event from the child, but do not dictate the specific information that should be reported, and are therefore open-ended. Blinkered by the ‘wh-’ word, participants often mistake open-ended questions for specific cued-recall questions. The proportion of these types of errors was 0.13 out of the total number of errors made. The following are some of the questions that were miscoded:

- What else can you tell me that happened at swimming?
- Tell me more about what happened when you went and got changed.
- And then what happened?
- Tell me everything that happened when Daddy did some bad stuff.

Misunderstanding 2: ‘Tell me’ always constitutes an open-ended question

This false belief resulted in a number of specific questions being incorrectly coded as open-ended. In the coding manual that participants were provided with, a number of best-practice open-ended questions commenced with ‘Tell me’; for example, ‘Tell me everything about the part where Uncle Tom yelled at you’ and, ‘Tell me more about that’. Questions that commenced with the phrase ‘Tell me’ but asked the child to provide specific information were therefore incorrectly coded as open-ended. The proportion of these errors was 0.05 out of the total number of errors made. Some examples are provided below:

- Tell me, what did you win your gold medal for?
- Tell me everything about the house.
- Tell me how that felt.
- Tell me about your special bit.

Misunderstanding 3: Open questions cannot include precise detail

When open-ended questions contained precise detail from a child’s narrative, they were sometimes confused for specific questions. During the free-narrative stage of an interview, interviewers often direct the child to a particular point of the child’s story to elicit more detail around that point. In order to do this successfully, the child’s language should be adopted, which often results in precise detail being incorporated into the question. Participants often fail to realise that these questions are not dictating what specific details should be reported, but rather are directing the child in an open-ended manner. These errors represented 0.08 of the total errors. Participants’ misunderstandings included the following questions:

- What else can you tell me that happened at the swimming competition?

- Tell me more about the part when you ran up the stairs and you got up to the top.
- Tell me more about what happened when the man was touching your gina.
- Tell me everything about the part when your daddy told you to clean your room.

Misunderstanding 4: Specific questions cannot elicit elaborate responses

The final confusion that many participants made was to allow the child's response to dictate how the question should be coded. This type of error spanned across all types of questions; however, it was most apparent in specific questions.

Specific questions direct the child to report a specific detail, which can usually be answered in one or two words. Occasionally, a child who understands why he or she is being interviewed and is ready to share that information will provide an extensive narrative; this is regardless of the question that child is asked. Many participants, however, hold the misbelief that an elaborate response can only be a result of an open-ended question. As a consequence, these participants coded any question that elicited a response of more than one or two words, or a response that contained more than one piece of information, as open-ended. These errors made up 0.02 of the total errors, and some of the examples were as follows:

Interviewer: Why can't you sleep? (specific cued-recall)

Child: Cause I think Uncle George is going to come and get me.

Interviewer: Was that different? (specific yes/no)

Child: No then he just picked me up and he put me on his legs.

Interviewer: Tell me when your dad last said you were clumsy? (specific cued-recall)

Child: When he was like looking after me cause my mummy was working and he said that I had to go, he said 'go and clean your room', that's what he said.

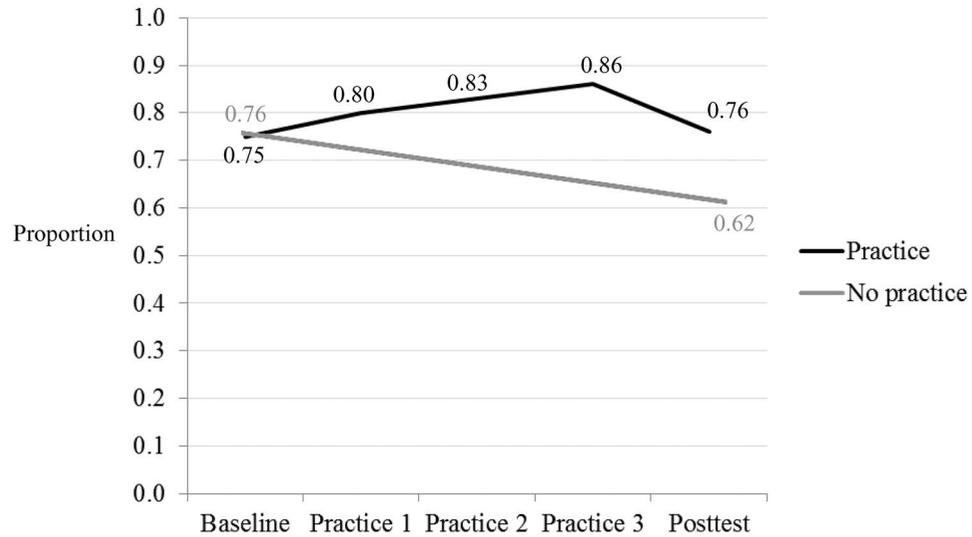
Effect of practice

To examine how well coding was maintained over time, we examined the incidence of errors among participants in the only group that was measured at two different points in time: the police group. We split this group into the 16 participants who completed the practice tasks (practice group) and the 11 participants who did not (no practice group). At baseline, participants accurately coded 75% of the interview questions. There was no significant difference in coding accuracy at baseline between the participants (practice group: $M = 0.75$, $SD = 0.11$; no practice group: $M = 0.76$, $SD = 0.14$), $F(1, 25) = 0.05$, $p = 0.833$.

A 2 (test: baseline, post test) \times 2 (practice: no, yes) repeated measures analysis of variance (ANOVA) revealed a significant interaction, $F(1, 25) = 4.87$, $p = 0.037$, $\eta_p^2 = 0.163$. Follow-up paired t -tests showed that participants who did not practise made more coding errors at post test than at baseline, $t(10) = 2.27$, $p = 0.047$ (see Figure 1). Participants who practised showed no difference in their overall coding accuracy from baseline to post test, $t(15) = 0.27$, $p = 0.795$. In other words, the rate of errors remained the same from baseline to post test for the practice group. Neither the main effect for test nor the main effect for practice was significant, $F(1, 25) = 3.67$, $p = 0.067$ and $F(1, 25) = 3.80$, $p = 0.063$, respectively.

Did the 16 participants who completed the practice tasks show increased coding accuracy with each practice? A 5 (test: baseline, practice 1, practice 2, practice 3, post test) repeated measures ANOVA on overall coding accuracy revealed a significant main effect, $F(4, 60) = 5.17$, $p = 0.001$, $\eta_p^2 =$

Figure 1
Proportion of errors over
time and practice



0.256. Repeated contrasts comparing participants' accuracy on each test revealed that participants' accuracy increased linearly from baseline to practice 1, from practice 1 to practice 2, and from practice 2 to practice 3, $F(1, 15) = 16.45, p = 0.001, \eta_p^2 = 0.523$. From practice 3 to post test, however, participants' accuracy decreased significantly, $F(1, 15) = 9.30, p = 0.008, \eta_p^2 = 0.383$. These results are displayed in Figure 1, which shows participants' accuracy increased from baseline to practice 3, then dropped back to baseline level at post test. Taken together, the results suggest that completing the practice tasks maintained participants' coding accuracy from baseline to post test compared with participants who did not complete the tasks.

DISCUSSION

Best-practice interview guides highlight the importance of open-ended questions. Trainee interviewers need to understand the definition of questions types, as well as have opportunities to practise and receive feedback about their question-type comprehension (Powell, 2008; Powell et al., 2005; Powell, Fisher, & Hughes-Scholes,

2008b; Price & Roberts, 2011). The current results extend the prior literature by showing that to fully prepare trainee interviewers for conducting mock interviews, instructors need to do more than provide trainee interviewers with a manual of question definitions and exemplars of questions from transcripts. Trainees need to demonstrate their understanding of questions through practical pencil-and-paper or online learning tasks prior to applying the questions types in a practical interview situation. Conceptual misunderstandings in trainee interviewers' understanding of question types need to be elicited, understood and corrected, and coding manuals need to be refined, to minimise the ongoing incidence of errors within and across trainee cohorts. Indeed, according to the strategy of 'errorless learning', people may make the same errors over and over again if they do not have their misunderstandings corrected early (eg, Guthrie, 1952; Terrace, 1963). As a result, the appropriate training of investigative interviewers in question types must be an interactive, two-way process between the trainer and trainee.

Although qualitative research studies in

the past have merely focused on professionals' beliefs about the value of open-ended questioning, we extended this research by examining participants' beliefs about the factors that dictate an open-ended question. When considering the broader literature on interviewing, we have little doubt that misunderstanding about question types (as reflected in the coding task) would have been echoed in actual interviewer performance, even among interviewers who fully supported the importance of a narrative approach. Indeed, past research has determined that coding ability has a positive association with actual interview performance (Powell & Guadagno, 2008; Yii et al., in press), and the overuse of specific cued-recall questions in the place of open-ended ones is a common criticism of interviewers who are taught to use these question definitions (Powell, Fisher, & Hughes-Scholes, 2008a; Powell & Guadagno, 2008; Powell & Hughes-Scholes, 2009). Further, prior literature about think-aloud interviews with trainee interviewers has indicated that a core theme underpinning trainees' use of specific questions relates to their confusion regarding how open-ended questions are distinguished from specific questions (Wright & Powell, 2006). In other words, some trainee interviewers incorrectly thought they were asking open-ended questions during the mock interview exercise when in fact they were asking specific questions. The incidence of superficial errors in an open-book style test, even errors among students whose ongoing employment in the team depended on obtaining a high level of inter-rater reliability, suggests the need for practical action, such as rote practice of the definitions, a legend which is less cumbersome to refer to when completing each question compared with a full manual, and better feedback early in the process to clarify the common errors or confusions that arise.

The importance of this research cannot be overestimated. While many trainers would acknowledge that identifying open-ended questions (as distinct from other questions) is important, it was not obvious until we analysed the errors that these more deep-rooted conceptual errors in trainee interviewers' understanding of question types arise after simple instruction. Importantly, these conceptual errors mimic, and might explain, some of the limitations in interviewers' performances when trying to adhere to open-ended questioning. For example, the source of trainees' errors when defining open-ended questions in the current study arose from a focus on the question stem (eg, 'Tell me') or word preface (eg, 'Wh') rather than on the nature and scope of detail sought for in the question. This might explain the common limitations of open-ended question usage in interviews, such as the repetition of question stems (eg, 'Tell me about . . .') and the limited range of questions (Guadagno & Powell, 2008). Such limitations, despite the fact that the interviewer has used open questions, minimise the natural flow of conversation and discourage elaborate reporting and connective narrative (Feltis, Powell, Snow, & Hughes-Scholes, 2010).

There are three practical implications arising from the current findings. First, our results dispute prior conclusions that pencil-and-paper tests have limited utility in interviewer training programmes (Freeman & Morris, 1999; Leung & Cheung, 1998; Warren et al., 1999). Pencil-and-paper tests can be useful depending on their specificity and relevance to the task of interviewing, and coding is one such relevant task. Second, the current findings add weight to prior conclusions that mastery of a coding protocol is an important prerequisite to applying the interview framework in mock practice exercises (Powell, 2008; Powell & Wright, 2008; Yii et al., in press). Having knowledge of a general interview protocol

does not necessarily imply that interviewers can conduct an open-ended interview and understand *how* to correct errors in performance. One of the limitations of the existing investigative interviewing literature is that there has been relatively little focus in the literature on what constitutes effective open-ended questioning, including how the different subtypes and variations of these questions are best classified and learned, and what the challenges are in applying effective open-ended questioning in the interview context (Powell & Guadagno, 2008). The focus of research to date has been on the degree to which children's accounts of events provide accurate and complete representations of their experiences using a memory (as opposed to linguistic) framework. Most developers of child interview protocols have a foundation in child memory as opposed to human learning.

Inconsistent terminology and definitions of open-ended questions in the professional and academic literature compound the problem, and this has been the focus of considerable discussion in recent investigative interviewing forums (eg, Oxburgh, Myklebust, Haworth, Cherryman, & Fedrick, 2012). The need for this paper has arisen because although it is well established that narrative detail should form the basis of forensic interviews with children, research around how to teach interviewers to elicit narrative detail is still in its infancy. In fact, experts are only starting to realise the widespread confusion regarding the type of questions that are most effective in eliciting free-narrative accounts, the cycle of failure that reinforces poor question use, and the strong association between knowledge of question types and interview practice (Powell & Guadagno, 2008; Yii et al., in press). Providing a general interview guide or framework does not imply that interviewers and their instructors can conduct an

interview in a manner that adheres to the technique prescribed.

The third practical implication arising from the current study is the need for ongoing revision of question definitions. Although the majority of question codes are easy to grasp with minimal coaching, it does take some time to become familiarised with definitions, and the current study showed that knowledge will decay over time without ongoing revision. To date, discussion in the literature of the importance of ongoing practise has been solely within the context of applying knowledge to mock interviews in exercises with feedback (Powell et al., 2008a; Lamb et al., 2007). What this study showed is that the decline in interview performance over time could be explained at least in part by a decline in knowledge of open-ended questions.

The next step for researchers is to identify more precisely what type of training activities best facilitate, and are associated with, best-practice performance. Different protocol developers and trainers may well have different perspectives on how various questions are defined in different coding protocols. Nonetheless, the message gained about the importance of establishing understanding through coding still applies. Although it is premature to determine the precise conditions or instruction in which question coding is best taught, this study has provided useful feedback to guide the development of a coding manual that considers the conceptual misunderstandings uncovered during this study. Research evaluations need to move beyond the question of *whether* training is effective in promoting change to identifying how open-ended questions are learned and sustained by professionals. Greater focus in training programs on the identification, use and understanding of different open-ended questions would likely enhance long-term improvement in interviewer performance

and improve interviewers' ability to judge their own competency (Powell, Fisher, & Wright, 2005; Wright, Powell, & Ridge, 2007).

NOTES

1. After considerable discussion and an examination of the frequency with which interviewers commenced open-ended questions with 'Can you . . .?' and 'Do you . . .?' we decided to allow this in our definition, even though it is not ideal to phrase questions in this manner. For example, in the question, 'Can you tell me everything that happened when he helped you?' it is clear that the interviewer is seeking a free-narrative account about the part of the story when 'he' helped the interviewee. In a literal sense, however, the question could actually be answered with a 'yes' or a 'no'.

REFERENCES

- Ceci, S. J., & Bruck, M. (1993). Suggestibility of the child witness: a historical review and synthesis. *Psychological Bulletin*, *11*, 403–439.
- Dey, I. (1993). *Qualitative data analysis: A user-friendly guide for social scientists*. New York: Routledge.
- Feltis, B. B., Powell, M. B., Snow, P. C., & Hughes-Scholes, C. H. (2010). An examination of the association between interviewer question type and story-grammar detail in child witness interviews about abuse. *Child Abuse & Neglect*, *34*, 407–413.
- Fisher, R. P., & Geiselman, R. E. (1992). *Memory-enhancing techniques in investigative interviewing: The cognitive interview*. Springfield, IL: C.C. Thomas.
- Freeman, K. A., & Morris, T. L. (1999). Investigative interviewing with children: evaluation of the effectiveness of a training program for child protective service workers. *Child Abuse & Neglect*, *23*, 701–713.
- Gifford, S. (1998). Analysis of non-numerical research. In C. Kerr, R. Taylor, & G. Heard (Eds.), *Handbook of public health methods* (pp. 543–554). New York: McGraw-Hill.
- Guadagno, B., & Powell, M. (2008). A qualitative examination of police officers' questioning of children about repeated events. *Police Practice and Research: An International Journal*, *10*(1), 61–73.
- Guthrie, E. R. (1952). *The psychology of learning* (rev. ed.). Oxford: Harper Bros.
- Lamb, M. E., Hershkowitz, I., Orbach, Y., & Esplin, P. W. (2008). *Tell me what happened: Structured investigative interviews of child victims and witnesses* (Wiley series in the psychology of crime, policing and law). Hoboken, NJ: Wiley.
- Lamb, M. E., Orbach, Y., Hershkowitz, I., Esplin, P. W., & Horowitz, D. (2007). Structured forensic interview protocols improve the quality and informativeness of investigative interviews with children: a review of research using the NICHD Investigative Interview Protocol. *Child Abuse and Neglect*, *31*, 1201–1231.
- Leung, P., & Cheung, K. M. (1998). The impact of child protective service training: a longitudinal study of workers' job performance, knowledge and attitudes. *Research on Social Work Practice*, *8*, 668–664.
- Ministry of Justice. (2011). *Achieving best evidence in criminal proceedings: Guidance for vulnerable or intimidated witnesses, including children*. London: HMSO.
- Oxburgh, G., Myklebust, T., Haworth, K., Cherryman, J., & Fedrick, P. (2012). *Communication in legal contexts*. Invited talk at the 5th Annual Conference of the International Investigative Interviewing Research Group, Toronto, 24–26 May.
- Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children: A guide for helping professionals*. Washington, DC: American Psychological Association.
- Powell, M. B. (2008). Designing effective training programs for investigative interviewers of children. *Current Issues in Criminal Justice*, *20*, 189–208.
- Powell, M. B., Fisher, R. P., & Hughes-Scholes, C. H. (2008a). The effect of using

- trained versus untrained adult respondents in simulated practice interviews about child abuse. *Child Abuse & Neglect*, 32, 1007–1016.
- Powell, M. B., Fisher, R. P., & Hughes-Scholes, C. (2008b). The effect of intra- versus post-interview feedback during simulated practice interviews about child abuse. *Child Abuse & Neglect*, 32, 213–227.
- Powell, M. B., Fisher, R. P., & Wright, R. (2005). Investigative Interviewing. In N. Brewer & K. Williams (Eds.), *Psychology and law: An empirical perspective* (pp. 11–42). New York: Guilford Press.
- Powell, M. B., & Guadagno, B. (2008). An examination of the limitations in investigative interviewers' use of open-ended questions. *Psychiatry, Psychology & Law*, 15(3), 382–395.
- Powell, M. B., & Hughes-Scholes, C. H. (2009). Evaluation of the questions used to elicit evidence about abuse from child witnesses: Australian study. *Psychiatry, Psychology & Law*, 16, 369–378.
- Powell, M. B., & Snow, P. C. (2007). Guide to questioning children during the free-narrative phase of an investigative interview. *Australian Psychologist*, 42, 57–65.
- Powell, M. B., & Wright, R. (2008). Investigative interviewers' perceptions of the value of different training tasks on their adherence to open-ended questions with children. *Psychiatry, Psychology and Law*, 15, 272–283.
- Price, H. L., & Roberts, K. P. (2011). The effects of an intensive training and feedback program on police and social workers' investigative interviews of children. *Canadian Journal of Behavioural Science*, 43, 235–244.
- Terrace, H. S. (1963). Discrimination learning with and without 'errors'. *Journal of the Experimental Analysis of Behavior*, 6, 1–27.
- Warren, A. R., Woodall, C. E., Thomas, M., Nunno, M., Keeney, J. M., Larson, S. M., & Stadfeld, J. A. (1999). Assessing the effectiveness of a training program for interviewing child witnesses. *Applied Developmental Science*, 3, 128–135.
- Wright, R., & Powell, M. B. (2006). Investigative interviewers' perceptions of their difficulty in adhering to open-ended questions with child witnesses. *International Journal of Police Science and Management*, 8, 316–325.
- Wright, R., Powell, M. B., & Ridge, D. (2007). What criteria do police officers use to measure the success of an interview with a child? *Psychology, Crime & Law*, 13, 395–404.
- Yii, S. B., Powell, M. B., & Guadagno, B. (in press). The association between investigative interviewers' knowledge of question type and adherence to best practice interviewing. *Legal and Criminological Psychology*.

APPENDIX 1: CONDENSED CODING PROTOCOL

Open-ended questions

Open-ended questions encourage an elaborate response but *do not* specify what specific information the child is required to report. Because these questions merely aim to keep the free-narrative going, they allow the child the freedom to choose what information will be reported and to narrate the story in his or her own words.

Initial open-ended invitations

An initial open-ended invitation encourages the child to report everything that he or she remembers about the event, or an occurrence of the event, that he or she has just disclosed. In other words, the initial open-ended invitation should be used to commence a child's narrative account about the event (or an occurrence of the event) that the child has come to be interviewed about. The point at which a child's narrative begins is influenced by the way in which the interviewer asks the initial open-ended invitation. As such, it is important that the initial open-ended invitation encourages an elaborate and comprehensive account but does not specify what information is required.

eg, Interviewer: What have you come to talk to me about today?

Child: What happened at the bad man's house.

Interviewer: *Have a think and tell me everything that happened, start at the beginning.*

Child: Jim always hurts me.

Interviewer: *Tell me everything you remember about the first time Jim hurt you.*

Open-ended breadth questions

When recalling an event, children (like adults) initially recall a series of broad activities or actions. Open-ended breadth questions encourage the child to expand the list of broad activities, or to recall the next act/activity that occurred. Importantly, however, these questions *do not* specify what precise information the child is required to report. Although not ideal, breadth questions could also ask the child to report preceding acts or activities in a sequence as well.

eg, Child: And then Mum came in the room and Dad was real mad and like yelling at her and all that. I was real scared.

Interviewer: *You said your Dad was yelling at your Mum, what happened next?*

Child: Samantha gave me a doll to play with.

Interviewer: *And then what happened?*

Open-ended depth questions

Open-ended depth questions invite the child to provide more elaborate detail about a pre-disclosed detail or a part of the event/experience, without specifying what precise information the child is required to report. They can request further free-narrative elaboration on a present topic (eg, 'Tell me more about that'), or alternatively can relate to an aspect that the child mentioned previously in an interview (eg, 'Earlier you said X. Tell me more about X.').

eg, Child: I don't like Tom because he yelled at me and he didn't watch me on the slide.

Interviewer: *Tell me everything about the part where Tom yelled at you.*

Specific questions

Specific questions focus the child's attention on pre-disclosed details or aspects of the event/child's experience and specify what precise information the child is required to report. They often elicit shorter responses than open-ended questions. Asking the child to be precise (eg, 'Tell me *exactly* what happened') does not in itself make a question specific. Consideration must be given to *what* information is being asked for as opposed to the degree of elaboration in the response. For example, the questions 'What type of building was it?' and 'Tell me all about the shape of the building' are both specific questions because they indicate what information the child needs to report (ie, to describe the type or shape of the building). By contrast, the question 'You mentioned looking up at the building. Tell me all about the part where you looked up at the building' is open-ended because it does not necessarily require the child to report what the building looked like.

Specific cued-recall questions

Specific cued-recall questions specify what precise information the child is required to report and allow the child to generate a response as opposed to choosing an alternative presented by the interviewer. Specific cued-recall questions typically start with 'Wh-' (ie, 'who', 'what', 'when', 'where', 'why').

e.g., Child: Sonia hurt me.

Interviewer: *When did Sonia hurt you?*

Child: When I was at home with everyone else.

Interviewer: *Who was at home when you got hurt?*

Specific yes/no questions

Specific yes/no questions specify what precise information the child is required to report and dictate a 'yes' or 'no' response.

eg, Child: Ethan hurt me at the park.

Interviewer: *Was there anyone at the park when Ethan hurt you?*

Child: no cos Ethan made me go with him behind the bush so no-one could see when he pulled my pants off and touched my Daisy.

Interviewer: *Were you wearing underpants the day when Ethan pulled your pants down at the park?*

Specific forced choice questions

Specific forced choice questions specify what precise information the child is required to report and offer alternative responses for the child to choose from. This is irrespective of whether the options have been previously provided by the child.

e.g., Child: Simon touched my Minnie.

Interviewer: *Did Simon touch you on the inside or the outside of your Minnie?*

Copyright of International Journal of Police Science & Management is the property of Vathek Publishing Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.