

AN EXAMINATION OF THE COMMUNICATIVE COMPETENCE

OF CHILDREN AND OFFICERS IN FORENSIC INTERVIEWS

by

Colleen O'Keefe

B.Sc., Dalhousie University, 1997

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE

in

PSYCHOLOGY

© Colleen O'Keefe, 1999

THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA

September 1999

All rights reserved. This work may not be reproduced in whole or in part, by photocopy or other means without the permission of the author.

UNIVERSITY OF NORTHERN
BRITISH COLUMBIA
LIBRARY
Prince George, BC

ABSTRACT

The present study used an inductive methodology to examine the communicative competence of officers and young children during forensic interviews about alleged sexual abuse. The primary objectives were (a) to identify developmentally appropriate question types and (b) to explore relationships within the three-turn sequence: Officer Probe-Child Answer-Officer Response. The sample consisted of 12 videotaped RCMP interviews with children younger than 8 years of age about alleged sexual abuse. Direct wh- probes (e.g., Where were you?) were identified as being the most useful for eliciting child-generated functionally appropriate answers. Indirect probes (e.g., Can you tell me where you were?) were identified as being less useful because they tended to elicit simple yes/no responses. The type of child answer was found to influence the officer's response and the findings generally indicate that the officers responded appropriately to the children.

Table of Contents

List of Tables	iv
Acknowledgements	v
Dedication	vi
Introduction	1
Overview	1
Purpose of Study	1
Literature Review	3
Method	9
Sample	9
Procedure	10
Measures	11
Results	19
Interobserver Agreement	19
Frequencies - Primary Coding Variables	19
Identification of Developmentally Appropriate Probes	19
Exploratory Analysis of Officer Probe-Child Answer- Officer Response Sequences	29
Discussion	34
References	40
Appendices	45

List of Tables

Table 1	Examples of Officer Probe Types	12
Table 2	Definitions of Child Answer Categories	14
Table 3	Definitions of Functionally Appropriate Answers	16
Table 4	Examples of Child Answer Expectedness Coding	18
Table 5	Examples of Officer Responses	20
Table 6	Kappas and Percent Agreements for Officer Probe Type Coding	21
Table 7	Kappas and Percent Agreements for Child Answer Coding	22
Table 8	Kappas and Percent Agreements for Child Answer Expectedness Coding	23
Table 9	Kappas and Percent Agreements for Officer Response Type Coding	24

Acknowledgements

I express my sincere gratitude to Cindy Hardy for her guidance and support throughout the completion of this thesis. I thank Sherry Beaumont and Anne Lindsay for their comments on earlier drafts of this work. I also thank the families and RCMP interviewers who participated in this study.

To my friends, both near and far, I thank you for your support and encouragement - especially during times of frustration. I also thank my family for their continued love and support. I express my deepest gratitude to my parents for their love, care, and encouragement in all I choose to do. Most of all I thank them for trusting me to follow my dreams no matter how far from home they may take me.

For Mom, with all my love.

Introduction

Overview

In the years 1997 and 1998 there were 4,620 confirmed cases of child abuse and neglect in British Columbia (Provincial Health Officer, 1998). Reducing the occurrence of child abuse is one of the goals of the Ministry for Children and Families. In investigations of alleged abuse, one of the first steps is an interview with the child about the alleged abuse. Obtaining an accurate and reliable account from a suspected victim of child abuse is an important part of an investigation of child abuse. Interviewing young children is particularly challenging. It is recommended that all children be interviewed regardless of age. Although the investigative interview with children is an important part of the identification of child abuse, remarkably little research has focussed on children's communicative abilities during actual forensic/investigative interviews.

The present research used an inductive methodology to examine the abilities of young children in actual forensic interviews and the manner in which interviewers respond to the children. Use of an inductive methodology means that general research questions were generated from existing relevant literature and from the content of the interviews being used to study the children's and officer's communicative competence. Working from the interviews, trained observers then developed observational coding categories which captured important dimensions of the communicative exchanges between interviewer and child. Once the coding process was complete, specific research questions which relate to the general research questions were developed.

Purpose of Study

The purpose of the present research is to examine the communicative competence of

young children and police officers in the context of forensic interviews investigating sexual abuse. The main goal of a forensic interview is to obtain a statement of fact from a witness to a crime. Forensic interviews are, therefore, different in style from assessment or counselling interviews (where the main goal is to find out about and/or help the interviewee.) In B.C., RCMP officers investigating alleged sexual abuse follow the Step-Wise Interview Protocol which specifies a series of interview steps within which the interviewer is expected to ask open-ended, then specific questions. In the context of a forensic interview, communicative competence is influenced by the abilities of both the interviewer and the child (Saywitz, Nathanson, & Snyder, 1993). The investigator must be able to obtain a reliable account from the child about the alleged sexual abuse that meets the evidentiary requirements of the courts. It is very important for the investigator to use (nonleading interview techniques to obtain an account of an event of which the investigator has no firsthand knowledge but may have preconceived ideas based on information provided by others.) In order to obtain such an account the officer must ask developmentally appropriate questions which will not contaminate the child's testimony. The child is expected to respond to the officer's question. It is expected that there is an interaction between the officer's and the child's communicative competence such that the child's ability to provide reliable information is related to the officer's ability to elicit such information. The purpose of this research is to describe children's abilities to provide appropriate answers to different types of officer probes for information (By doing so, developmentally appropriate question types may be identified. This research will also examine how officers respond to expected versus unexpected information provided by children. This exploratory analysis will provide information about the interaction between officer question type, expectancy of the child's answer and officer's response. The overarching goal of this research is to obtain information which will help improve

the quality of forensic interviews with young children.

Literature Review

Investigations of sexual abuse rely on children's testimony because children are often the sole witnesses to their abuse. The task of interviewing young children is challenging as their social, cognitive and language skills are not as developed as those of adults' or older children's. To obtain information about sexual abuse from children, investigators must consider the child's developmental abilities. Within the context of a forensic interview, one of the most important — developmental considerations is the child's ability to answer different types of questions. It is expected that an interview will be more productive if children are asked questions they are —developmentally capable of answering. In order to identify developmentally appropriate questions, information about children's abilities to answer different question types during actual forensic interviews is required. Although previous forensic (Cassel, Roebbers & Bjorkland, 1993; Fivush & Schwarzmuehler, 1995; Hutcheson, Baxter, Telfer, & Warden, 1995; Lamb, Sternberg & Esplin, 1994; Perry et al., 1995; Peterson & Bell, 1996; Peterson & Biggs, 1997; Poole & White, 1991; Poole & White, 1993) and language development (Cairns & Hsu, 1977; Dore, 1977; Ervin-Tripp, 1970; Ervin-Tripp & Miller, 1977; Hooper, 1971; Parnell & Amerman, 1983; Parnell, Patterson & Harding, 1984; Tyack & Ingram, 1976) research using experimental paradigms has investigated children's ability to answer different question forms, methodological factors may limit generalizability to actual forensic interviews. Forensic interviews about sexual abuse have characteristics which ethically cannot be replicated by forensic researchers and which are not of primary interest to language development researchers. Study of children's and officers' behaviours during forensic interviews is required for a full understanding of what makes such interviews successful.

Using different criteria, forensic and language development researchers have identified important distinctions between question types. Forensic research focuses on the accuracy of children's responses to different question types. Open-ended questions (e.g., "What happened?") have been identified as obtaining more accurate responses from children than specific questions (e.g., "Where was that?", "Did you know him?") (Goodman & Reed, 1986). As such, forensic interview protocols typically encourage the use of open-ended questions to obtain a child-generated description of abuse events. However, both forensic and language development research indicates that children's responses to open-ended questions tend to be incomplete (Nelson, 1986), and the younger the child the less information that is spontaneously included in narrative description of past events (Baker-Ward et al., 1993). Young children are able to provide the details typically contained in a narrative when prompted with specific questions (Menig-Peterson & McCabe, 1978; Peterson & McCabe, 1994; Saywitz & Snyder, 1996). This, however, poses a problem for investigators who must attempt to elicit an unbiased yet detailed account from young children about alleged abuse. Often times a detailed account of the abuse cannot be elicited from young children without using specific questions but specific questions have been identified as eliciting less accurate information than open-ended questions.

Most previous research has defined both wh- and yes/no questions as being specific. The different demands wh- and yes/no questions place on the child suggest wh- and yes/no questions may differentially elicit accurate responses. A wh- question requests specific, child-generated information whereas a yes/no question only requires the child to agree or disagree with information provided in the question. In the one study which separated wh- and yes/no questions, wh- questions were found to elicit more accurate responses from young children than yes/no questions but this difference did not reach statistical significance (Peterson & Biggs,

1997).

For ethical reasons, forensic researchers typically examine children's abilities to answer questions in contexts which are less stressful than those of actual abuse, although approximations to the stress associated with abuse have been made. For example, children have been interviewed about traumatic injuries requiring a trip to a hospital emergency room (Peterson & Biggs, 1997). There are cautions against generalizing from children's abilities in artificial contexts about events which have no physical impact on the children to children's abilities in forensic interviews (Yuille & Wells, 1991). As well, the use of accuracy as the criterion by which children's answers are judged means that there must be an objective account of the event about which the children are being questioned. This criterion cannot be used to assess children's answers during actual forensic interviews because no objective account of the alleged abuse event exists.

In contrast, language development research uses the criterion of functional appropriateness to judge children's answers to different question types (e.g., Dore, 1977; Hooper, 1971; Parnell, Patterson, & Harding, 1984). A functionally appropriate answer is one which provides the form of information requested by the question (Parnell, Patterson, & Harding, 1984). This criterion has most often been used to judge the adequacy of responses to different forms of wh- questions. For example, the functionally appropriate response to a 'where' question would contain a location, whereas the response to a 'when' question would contain a date or time. In addition to the open-ended and closed-ended distinction made by forensic researchers, language development researchers identify indirect and direct question types (Walker, 1993). Walker's linguistic case study examined if a five-year-old child, who had witnessed a murder, could meet the requirements of legal competency for witnesses. The child

had difficulty recognizing indirect and direct speech acts. For example, the child often responded with yes/no answers to questions like, "Do you know where she lives?"

Language development research typically examines children's abilities in contexts familiar to the children, such as in conversations with parents or in play with peers and, therefore, the level of stress the child is experiencing is expected to be very low. It is expected that children are exhibiting their optimal abilities in such contexts and that these abilities may not transfer to the stressful context of a forensic interview investigating alleged sexual abuse.

There is a limited amount of research examining actual forensic interviews, but various researchers have developed criteria by which to judge children's answers in that context. Counting the number of words per child response has been used as a measure of informativeness (Lamb et al., 1996; Sternberg et al., 1996). This measure is problematic because it does not reveal anything about the content of the child's response. Other researchers have simply categorized each child's response according to its content, for example, agreement or disagreement (Underwager & Wakefield, 1990). However, without detailed coding of the types of questions asked by the investigators, assessments of the appropriateness of each child answer in relation to specific question types/forms cannot be made. Only if both the type of investigator question and the appropriateness of each child answer are coded will information about developmentally appropriate questions be obtained.

Thus far, the focus has been on the types of questions officers may ask during investigative interviews and children's abilities to answer such questions in a variety of contexts. However, an officer's communicative competence is not solely defined by his or her ability to ask developmentally appropriate questions. As the officer is in control of the interview, he or she must also competently respond to the answers provided by the child. Previous research has

focused on interviewer behaviors which result in disclosure of abuse through positive rewards after children make statements which support abuse (Underwager & Wakefield, 1990) or by ignoring child statements which do not support the occurrence of abuse (Lloyd, 1992). However, it is possible that officer responses to child statements at all points throughout the interview, not only when the questioning is focused on abuse, will affect the overall quality of the interview through their effect on rapport, the feeling of being understood.

There are many instances in which an officer response to a child statement is necessary. The most notable would be an instance in which the information contained in a child's answer to a question is unexpected or inadequate, that is, when the child either provides information that was not requested or fails to provide a sufficient amount of information in response to a question. Language development research has shown that children often provide insufficient information in their responses to open-ended questions; therefore investigators must follow-up with more specific questions in order to get the information they originally desired (Ervin-Tripp, 1970; Ervin-Tripp & Miller, 1977; Peterson & McCabe, 1994). To further complicate matters, language development research shows that children often provide answers to question forms they do not understand (Parnell, Patterson, & Harding, 1984). That is, children tend to answer more complicated question forms as if they were question forms they already had mastered, resulting in responses which contain information not requested by the form of the question, for example, 'What happened?', 'We were at the zoo.' Linked to children's ability to provide appropriate or adequate answers to questions is their cognitive ability to understand the concepts presented in different question types. For example, in order to answer a question about when an event occurred children must be able to tell time; yet this ability does not develop until age seven (Snyder, Nathanson, & Saywitz, 1993). Finally, children often are not willing participants in

forensic interviews and may respond in ways which indicate their desire to shorten or end the interview. All of these situations may require that the officer actively respond to clarify and/or otherwise follow-up the child's answer to the question.

Research on discourse processes indicates that misunderstandings, of which the provision of unexpected or insufficient information can be considered a subset, can be studied by examining the segment of speech immediately following the unexpected utterance (Markova & Linell, 1996). When officer-child interactions are categorized in three-turn sequences beginning with the officer's question/probe, followed by the child's answer, which is in turn followed by the officer's response to the child's answer, the relevant segment is the officer's response to the child's answer. That response is the investigator's opportunity to indicate his or her understanding and interpretation of the child's statement (Lloyd, 1992). For example, an investigator may acknowledge a child's expected statement or ask another question of the child if the child's statement contains information which is unexpected or inadequate.

The present study will describe the appropriateness of children's responses to different forms of questions asked by police officers during forensic interviews investigating alleged sexual abuse. Based on prior work with these interviews (O'Keefe, Hewlett & Hardy, 1999), it was expected that the children will provide more appropriate answers in response to direct questions than to indirect questions. Based on existing literature, it was also expected that children would be more likely to provide appropriate answers to specific questions than to open-ended questions. An exploratory analysis of the types of responses that officers make to children's statements which are expected or unexpected will also be conducted. By identifying question types which are developmentally appropriate, that is, questions which children are able to answer appropriately, as well as question types which most often result in expected or

unexpected answers, possible ways to improve the quality of interviews with children will be identified. The possible identification of officer response patterns which are negative or positive will also be useful for improving future interviews with children.

Method

Sample

Twelve videotaped RCMP interviews with young children concerning alleged sexual abuse were coded. The interviewed children ranged in age from 3 years, 1 month to 7 years, 6 months and had a mean age of 5 years, 10 months. The interviews were conducted by eight RCMP members, therefore in this sample of interviews some officers interviewed more than one child. Only the initial interviews of investigations that are now closed were used. During the interviews seven children disclosed sexual abuse and five children did not disclose sexual abuse.

The interviews were conducted using the Step-Wise Interview protocol (Yuille, 1988; Yuille, Hunter, Joffe, & Zapurniuk, 1993). This protocol was developed through an examination of the forensic literature about obtaining accurate and reliable information from children about alleged sexual abuse. The Step-Wise Interview protocol specifies a series of steps that interviewers should follow. After an introduction, officers should attempt to build rapport with the children and to assess their developmental level through questioning about a non-threatening event such as a birthday party. During the rapport building step, officers are instructed to use open-ended questions to obtain free narratives from the children and only after the children have provided narratives should information be clarified using more specific questions. Then the officer introduces the topic of abuse. The same procedure of moving from open-ended to specific questions is also prescribed when questioning children about the alleged abuse event.

Plain clothes RCMP members interviewed the children in a room furnished with

comfortable chairs at the RCMP detachment in Prince George, BC. In most interviews only the RCMP member and the child were present; in the few cases that another adult was present, he or she was the child's parent or a social worker.

Procedure

Sample recruitment. Videotapes and transcripts of RCMP interviews were obtained previously as part of a larger project investigating these interviews. Consent to view the videotapes of RCMP interviews was obtained from both the officer conducting the interview and the parent or legal guardian of the child being interviewed (see Appendix A for RCMP consent forms and Appendix B for parent consent forms). When the researchers first contacted the officers, it was not known which of their interviews might be used, so they were given the opportunity to give full consent to having any of their interviews used or provisional consent pending notification of the particular interviews to be used. Only one officer selected the latter option and gave consent to use the first interview selected. Once an officer had given permission to use his/her interviews, RCMP Victim Services personnel contacted parents of the children the officer had interviewed (see Appendix C for telephone script). If a parent agreed to participate, a transcript with identifying information removed and a videotape of the interview was sent to the researchers.

Coding. Four primary variables were coded: Officer Probe Type, Child Answer Type, Expectedness of Child Answer and Officer Response Type (see Measures section for detailed description of variables). All coding relied on both the transcripts and videotapes of the interviews to permit coders to use nonverbal responses, tone, and inflection to assist in coding the variables. Officer Probe Type was the first variable coded. Second, Child Answer Type was coded for each child answer to an officer probe for information. Third, the Expectedness of the

Child Answer was coded in relation to the preceding probe. Finally, Officer Response Type was coded. For each variable, approximately 20 % of the interviews were coded by a second observer and Cohen's kappa was calculated (see Results section).

In order to conduct the desired analyses, the primary variables were recoded into secondary variables as required. Once the primary coding was done, specific research questions were posed of the data. This often involved or required recoding of the data into secondary variables, which was accomplished using SPSS syntax files. The secondary variables are described in detail in the results section along with the analyses for which they were relevant.

Measures

Officer probes for information. Officer probes for information were initially coded into 13 mutually exclusive and exhaustive categories using a modified version of a coding manual previously used on these interviews (Hardy & Hewlett, 1997; See Appendix D). Officer turns which were probes had previously been identified as part of a larger research project with these interviews. There were seven main categories of officer probes: open-ended, wh-, multiple choice, yes/no, if-then, requests for repetition and other (See Table 1). Only those officer probes that were of interest to the present study are described here. Open-ended probes are very general requests for information intended to elicit a narrative-type response. Open-ended probes can pertain to either an event (e.g., a birthday party) or a non-event (e.g., a person). Wh- probes are intended to elicit specific information, such as details about who, what, where, when, why, how many, or how much, and do not have potential answers embedded in the probe. Yes/no probes require the child to indicate agreement or disagreement with a proposition contained in the probe. The structure (direct vs. indirect) of probes with the grammatical form open-ended, wh-, multiple choice and yes/no was coded. Direct probes have unambiguous meanings. Indirect probes have

Table 1

Examples of Officer Probe Types

Structure	Grammatical Form	Example
Direct	open-ended	Tell me what happened.
	wh-	Why did you do that?
	yes/no	Did you know him?
Indirect	open-ended	Can you tell me what happened?
	wh-	Can you tell me why you did that?
	yes/no	Can you tell me if you knew him?

Note. Only officer probe types of interest are presented in table.

a question embedded within the yes/no grammatical form. As a result, indirect probes and their answers have ambiguous meanings. For example, a 'no' answer to the indirect question, 'Can you remember his name?' may mean the child does not remember the person's name or that the child does not know the person's name. Indirect forms can technically be answered with a yes/no answer even though the interviewer is usually seeking information.

Child Answer Type. Child Answer Type was coded using a modified version of Underwager and Wakefield's (1990) codes for children's communicative behaviour during investigative interviews. These codes recorded the nature of the children's responses in relation to the preceding officer probe for information and included: Agreement, Disagreement, Partial Agreement, Relevant Information, Irrelevant Information, Refusal to Answer, Clarification, Don't Know, Relevant Question, Irrelevant Question, No Response or Other. Definitions are given in Table 2; see Appendix E for coding manual. Although initial coding permitted the categorization of children's responses into more than one category, the most common combinations of categories (e.g., agreement + relevant information, disagreement + relevant information, or other combinations) were used to define a mutually exclusive and exhaustive system of codes.

Secondarily, the functional appropriateness of the child's answer was assessed by comparing the information contained in the answer with the type of information requested by the form of the question. For example, a functionally appropriate answer to a direct yes/no question would contain agreement, disagreement or partial agreement. Functionally appropriate answer types for different probe types appear in Table 3.

Expectedness of Child Answer. For the purposes of studying officer responses to children's answers, children's statements in response to officer probes were further coded as

Table 2

Definitions of Child Answer Categories

Answer Category	Definition
Agreement	Explicit verbal or nonverbal affirmations of propositions contained in officer probes
Disagreement	Explicit verbal or nonverbal negations of propositions contained in officer probes
Partial agreement	Partial or qualified agreement with an officer probe
Relevant information	Verbal or nonverbal information related to, but not contained in, the officer probe
Irrelevant information	Information which is not related to the officer probe
Refusal to answer	Indicates the child is unwilling to participate in the interview and/or to answer the probe
Clarification	Indicates the child wants the officer to repeat or clarify a probe
Don't know	Indicates verbally or nonverbally that the child does not know the answer to an officer probe

table continues

Table 2 (continued)

Answer Category	Definition
Relevant question	A question seeking information related to the officer's preceding probe
Irrelevant question	A question seeking information not related to the officer's preceding probe
No response	No verbal or nonverbal response is given to an officer probe
Other	Any response which does not fit into the above categories (e.g., the child gives a command to the officer, indications the child is thinking of an answer, times the child is not visible and does not give a verbal answer)

Table 3

Definitions of Functionally Appropriate Answers

Probe Type		
Form	Structure	Functionally Appropriate Answer
Direct	Open-ended	Relevant Information
	Wh-	Relevant Information
	Yes/No	Agreement, Disagreement
Indirect	Open-ended	Relevant Information
	Wh-	Relevant Information
	Yes/No	Agreement, Disagreement

either expected, unexpected, question, or other. The coding of expectedness does not completely overlap with coding of the functional appropriateness of children's answers. An expected child answer contains the information sought by the preceding officer probe and the information is sufficient to answer the probe. It is possible for a child to provide an answer which is functionally appropriate but which does not meet the criterion for expectedness because it is insufficient. For example, in response to 'why?' a child may simply reply 'cause' which is functionally appropriate but does not meet the expectancy criterion of sufficiency, that is in order for the 'cause' answer to be fully understood another question or comment must be posed by the officer. An unexpected answer does not contain the information sought by the preceding question and/or does not contain sufficient information to answer the probe. It is assumed that the direct and indirect forms of a particular probe were intended to seek the same expected response. For example, it is assumed that the direct question, 'What is your name?' and the indirect question, 'Can you tell me your name?' are both seeking the same expected response of the child's name. See Table 4 for examples of Child Answer Expectedness coding. See Appendix F for Expectedness of Child Answer coding manual.

Officer response. The officer turn immediately following a child's answer was coded into one of the following categories: Related Probe, Related Statement, New Probe, Unrelated Statement, Clarification of Initial Probe, Acknowledgement, or Other. Related probes asked about information provided in the child's answer. Related statements were statements about information provided in the child's answer. New probes were unrelated to information provided in the child's answer. Unrelated statements were statements unrelated to information provided in the child's answer. Clarification of Initial Probe were instances in which the officer attempted to clarify the meaning of his or her initial probe. Acknowledgments were simply acknowledgments

Table 4

Examples of Child Answer Expectedness Coding

Probe Type	Expected Answer	Unexpected Answer	Question
open-ended	We were in the living room, on the couch and he touched me.	We were in the living room.	What do you mean?
wh-	Because I was scared.	'Cause.	Huh?
yes/no	Yes.	I don't know.	What?

Note. Probe types can be either direct or indirect.

of the child's answer. Examples of Officer Responses Types are in Table 5. See Appendix G for Officer Response Coding Manual.

Results

Interobserver Agreement

Cohen's kappa was calculated for each of the four primary coding variables: Officer Probe Type, Child Answer Type, Expectedness of Child Answer and Officer Response Type. Cohen's kappa is a statistic which reflects the extent of observer agreement while correcting for chance agreement between observers (Bakeman & Gottman, 1997). Percent agreements for each level of the primary coding variables was also calculated. See Tables 6, 7, 8 and 9 for presentation of kappas and percent agreements. The kappas reflect good to excellent agreement.

Frequencies - Primary Coding Variables

Tables H1 through H4, show the frequencies for each of the primary coding variables collapsed across interviews and in total. Frequencies are important for understanding sequential results. Both within and between interviews, the base rates of each of the primary coding variables was highly variable (e.g., some interviews have no direct open-ended questions). The most common Officer Probe Types were "direct yes/no" (40%) and "direct wh-" (37%). The most common Child Answer Types were "agreement" (20.5%) and "relevant information" (37.8%). Child Answers were more often "expected" (66.3%) than "unexpected" (27.8%). The most common Officer Response Types were "related probe" (30.4%) and "acknowledgment" (30.6%).

Identification of Developmentally Appropriate Probes

Overview. The first research question seeks to identify Officer Probe Types which are developmentally appropriate for use with young children. In the context of a forensic interview,

Table 5

Examples of Officer Responses

Officer Response	Example
Related Probe	Q. Do you know what that is? A. No. R. You don't?
Related Statement	Q. Can you tell me your address? A. Prince George (said quietly) R. Can't hear you.
New Probe for Information	Q. What is your address? A. Billy touched me. R. What is your address?
Unrelated Statement	Q. Where in the house were you? A. The living room. R. Oh, I have to change the videotape.
Clarification of Initial Probe for Information	Q. Does mommy use the fork? A. Like what? R. That special fork, does mommy use it?
Acknowledgment	Q. What is your dog's name? A. Spot. R. Oh.

Note. Q represents officer probe for information, A represents child answer and R represents officer response.

Table 6

Kappas and Percent Agreements for Officer Probe Type Coding

	Kappa	Percent Agreement
Probe Type	0.92	
direct open-ended (event)		99%
direct open-ended (nonevent)		100%
direct wh-		98%
direct multiple choice		99.8%
direct yes-no		97.6%
indirect open-ended (event)		98.7%
indirect open-ended (nonevent)		100%
indirect wh-		97.6%
indirect multiple choice		99%
indirect yes-no		99.3%
if-then		99.8%
request for repetition		99.1%
other		99.1%
inaudible/incomplete		99.8%

Table 7

Kappas and Percent Agreements for Child Answer Coding

	Kappa	Percent Agreement
Child Answer Type	0.86	
agreement		97.5%
disagreement		98.8%
partial agreement		100%
relevant information		93.3%
irrelevant information		97.2%
refusal to answer		100%
request for clarification		99.4%
don't know		99.4%
relevant question		99.7%
irrelevant question		98.8%
no response		97.2%
other		99.4%
agreement & relevant information		99.7%
disagreement & relevant information		99.1%
other combinations		100%
inaudible/incomplete		99.7%

Table 8

Kappas and Percent Agreements for Child Answer Expectedness Coding

	Kappa	Percent Agreement
Expectedness of Child Answer	0.95	
Expected		97.5%
Unexpected		97.8%
Other		100%
Question		100%

Table 9

Kappas and Percent Agreements for Officer Response Type Coding

	Kappa	Percent Agreement
Officer Response	0.72	
related probe		86.8%
related statement		94.0%
new probe		90.4%
unrelated statement		98.1%
clarification of initial probe		94.0%
acknowledgement		94.5%
other		99.8%
inaudible/incomplete		99.8%

a developmentally appropriate probe is one that elicits a functionally appropriate answer and one that elicits information generated by the child. This research question has the basic form: given officer probe type X, what is the likelihood of child answer type Y? Conditional probabilities capture the probability of a target event given the occurrence of a prior event.

In the case of the present research question, the prior event is Officer Probe Type and the target event is Child Answer Type. Because the probe and answer occur at different points in time, conditional probabilities are called transitional probabilities in the context of sequential analysis. Transitional probabilities should not be used as scores for testing individual or group differences, however, because they are affected by the base rates of the target and given events (Bakeman & Gottman, 1997). Comparisons were desired between the frequency with which different probe types elicited answers that were functionally appropriate and contained child generated information. Therefore, Bakeman and Gottman's (1997) recommendation to use strength of effect scores in testing for individual or group differences was followed. Yule's Q is an index of the strength of association between two categorical variables. Like the familiar Pearson's product moment correlation coefficient (r), Yule's Q varies between -1 and +1 with a value of zero indicating no effect, and -1/+1 indicating perfect association (Bakeman & Gottman, 1997). In sequential terms, a Yule's Q = +1 means event B always follows event A, Q = 0 means event B randomly follows event A, and Q = -1 means event B never follows event A.

Calculation of Yule's Q requires that data from each interview be reduced to a 2 X 2 table in which rows represent the given event (in this case, probe type) and columns represent the target event (in this case, answer type). Specifically, the rows indicate the presence or absence of the particular probe type of interest and the columns represent the presence or absence of the particular answer type of interest. Once calculated, Yule's Q scores serve as the dependent

variables in t-tests or analyses of variance to test for individual and group differences. There are numerous associations that can be examined by collapsing the larger matrix of 14 officer probe types and 16 child answer types into 2 X 2 matrices. Two specific research questions were tested using this approach. The primary research question was the identification of developmentally appropriate probe types. Yule's Qs were used to determine if there were differences in the strength of association between the direct and indirect forms of open-ended, wh- and yes/no probes and functionally appropriate responses. The secondary/complementary research question focussed on the types of responses that are elicited by the direct and indirect forms of open-ended and wh- probes. The use of open-ended and wh- probes is desirable because functionally appropriate answers to them contain child generated information and are usually more accurate than children's answers to yes/no probes in which the child only has to agree or disagree with information generated by the interviewer.

What types of probes elicit functionally appropriate answers? In order to study differences in the likelihood of a functionally appropriate response given the direct or indirect open-ended, wh- or yes/no probes, Officer Probe Type and Child Answer Type were recoded to permit the creation of the 2 X 2 contingency tables required to calculate Yule's Q. For each interview, six Yule's Q values were calculated: (a) one reflecting the strength of association between direct open-ended probes and functionally appropriate answers, (b) one reflecting the strength of association between direct wh- probes and functionally appropriate answers, (c) one reflecting the association between direct yes/no probes and functionally appropriate answers, (d) one reflecting the strength of association between indirect open-ended probes and functionally appropriate answers, (e) one reflecting the strength of association between indirect wh- probes and functionally appropriate answers, and (f) one reflecting the strength of association between

indirect yes/no probes and functionally appropriate answers.

To calculate Yule's Qs, Officer Probe Types were recoded into the following six dichotomous variables: direct open-ended (yes vs. no), direct wh- (yes vs. no), direct yes/no (yes vs. no), indirect open-ended (yes vs. no) indirect wh- (yes vs. no) and indirect yes/no (yes vs. no). Child Answer Types were recoded into two new dichotomous variables. A new variable called Relevant Information (including the Child Answer categories of relevant information, agreement + relevant information, disagreement + relevant information) versus any other kind of child Answer Type was formed, as was a second new variable called Pooled Agreement (including agreement, disagreement, disagreement, partial agreement, agreement + relevant information and disagreement plus relevant information). Functionally appropriate responses were defined by the types of probes they follow. The present coding scheme identified answers that contain Relevant Information as being functionally appropriate responses to the following probe types: direct open-ended, direct wh-, indirect open-ended and indirect wh-. Any answer that contained Pooled Agreement was considered to be a functionally appropriate answer to direct and indirect yes/no probes.

Ideally, a within subjects ANOVA examining the function of both structure (direct vs. indirect) and grammatical form (open-ended, wh-, yes/no) on the likelihood of eliciting functionally appropriate responses would be conducted on the above data. Unfortunately, the nonoccurrence of certain probe types and/or response types in individual interviews resulted in missing Yule's Q values for some interviews. Only three of the 12 interviews had all 6 Yules' Q scores and a within subjects ANOVA could not therefore be calculated. Instead, paired-sample t-tests were conducted to determine whether there were differences in the strength of association between (a) "direct open-ended" probes and functionally appropriate responses versus "indirect

open-ended” probes and functionally appropriate responses; (b) “direct wh” probes and functionally appropriate answers versus “indirect wh” probes and functionally appropriate answers; and, (c) “direct yes/no” probes and functionally appropriate answers versus “indirect yes/no” probes and functionally appropriate answers. No significant difference was found between “direct open-ended” and “indirect open-ended” probes in elicitation of functionally appropriate answers ($\underline{M}=.10$, $\underline{SD}=.85$; $\underline{M}=-.21$, $\underline{SD}=.82$, respectively), $t(6) = .64$, *ns*. Similarly, no significant difference was found between “direct yes/no” and “indirect yes/no” probes in the elicitation of functionally appropriate answers ($\underline{M}=.89$, $\underline{SD}=.09$, $\underline{M}=.24$, $\underline{SD}=.82$, respectively), $t(4) = 1.69$, *ns*. In contrast, a significant difference was found between the strength of association between “direct wh” probes and functionally appropriate responses versus “indirect wh” probes and functionally appropriate answers ($\underline{M}=.66$, $\underline{SD}=.20$, $\underline{M}=-.45$, $\underline{SD}=.56$), $t(11) = 5.41$, $p < .001$. “Direct wh” probes were more likely than “indirect wh” probes to elicit functionally appropriate answers.

The above analysis indicates that direct wh- probes are likely to elicit functionally appropriate responses, which by inference means the children generate the information contained in their answer on their own. The secondary research question tests this assumption by assessing whether “pooled agreement” answers were more strongly associated with direct open-ended and wh- probes or with indirect open-ended and wh- probes. A paired-sample t-test indicated a significant difference in the strength of association between direct wh- probes and “pooled agreement” answers versus indirect wh- probes and “pooled agreement” answers, $t(11) = -4.86$, $p = .001$. Direct wh- probes were extremely unlikely to elicit “pooled agreement” answers ($\underline{M} = -.99$, $\underline{SD} = .02$), whereas “pooled agreement” answers randomly followed indirect wh- probes ($\underline{M}=.08$, $\underline{SD}=.76$). No significant difference was found between the association of direct open-

ended probes and Pooled Agreement Answers versus the association of indirect open-ended probes and Pooled Agreement Answers.

Exploratory Analysis of Officer Probe- Child Answer - Officer Response Sequences

Log-linear analysis of cross-classified data. A cross-classification coding system was used to code Officer Probe-Child Answer-Officer Response sequences. Each time an officer probe was coded in an interview, the child's answer to that probe was coded, as was the officer's response to the child's answer. Therefore not every officer turn and child turn in the interviews was coded. Log-linear analysis is the recommended form of analysis for this type of cross-classified data (Bakeman & Gottman, 1997). The Officer Probe-Child Answer-Officer Response data results in a contingency table which has an embedded sequential structure, such that Officer Probes precede Child Answers, which precede Officer Responses. Log-linear analysis is used to analyse multidimensional contingency tables of this type and is the multivariate extension of the familiar χ^2 analysis. There are two main steps to log-linear analysis: model selection and interpretation of the selected model.

The first step of analysis is model selection. In this step, expected frequencies are generated for the cells of the contingency table using different models and the model that best fits the observed data is identified. The simplest model is the null or equiprobable model, in which each cell of the contingency table is assigned the same expected value, and would be the best fit model if all sequences are equally likely. The most complex model is the complete or saturated model which generates expected values that are the same as the observed values. A saturated model includes all main effects and interactions, which are analogous to the main effects and interactions of an analysis of variance. The goal of log-linear analysis is to find the least complex model that fits the data by omitting terms that do not contribute to the fit between

observed and expected frequencies. In the present case, a hierarchical log-linear analysis was used, which means that lower-order interactions and main effects associated with significant higher-order interactions are retained in the selected model even if the lower-order interactions are not significant themselves.

The second step of a log linear analysis is the interpretation of the selected model. Parameter estimates and marginal observed frequency tables for all effects included in the model are used to interpret the selected model (Tabachnick & Fidell, 1996). Parameter estimates are used to identify the effects which produce the observed frequency in a given cell. Only those cells with significant parameter estimates (i.e., greater than 1.96 or less than -1.96) are interpreted. The marginal observed frequency tables for significant parameter estimates can be used to calculate simple and conditional probabilities. Conditional probabilities (i.e., the probability of event B given event A) can be meaningfully compared to the simple probabilities of a given category (i.e., the simple probability of event B) to highlight how interviewer and child influence each other.

Recoding of primary variables. The primary coding variables of Officer Probe Type, Expectedness of Child Answer and Officer Response Type were used in this analysis. To facilitate testing of key research questions and to reduce the number of cells in the contingency table, the table was collapsed as follows. First, “direct open-ended”, “wh” and “yes/no” probes were collapsed to form a “direct probe” category and “indirect open-ended”, “wh” and “yes/no” probes were collapsed to form an “indirect probe” category. Probes were collapsed into direct and indirect probes because prior analyses indicated that these probe types differentially affect the types of answers the children provide. Second, the Child Expectedness categories “other” and “question” were collapsed into one category because they were not of theoretical interest.

Third, the Officer Response categories “related probe” and “related statement” were collapsed to form a “related response” category and “new probe” and “unrelated statement” were collapsed to form an “unrelated response” category. None of the original distinctions thus collapsed were of theoretical interest. Due to the low frequency of the Officer Response Type “other” (2 out of 1342 sequences), it was decided to exclude them from the analysis. In summary, the variables used in the analysis were: Probe (Direct vs. Indirect), Answer (Expected, Unexpected, or Other) and Response (Related, Unrelated, Clarification of Initial Probe, Acknowledgement).

Assessment of Assumptions. The first assumption underlying log-linear analysis is that observations are independent. In the present case, each three-turn Officer Probe- Child Answer- Officer Response sequence contributed to only one cell of the contingency table. Therefore the independence of observations assumptions was met (Bakeman & Dorval, 1989). The second assumption of log-linear analysis is that there are at least five times the number of cases as cells in the design. Examination of base rates for each interview indicated that individually, not all interviews had a sufficient number of Officer Probe-Child Answer-Officer Response sequences to conduct a log-linear analysis. Thus, data were pooled across all the individual interviews to form one data set large enough to conduct a log-linear analysis. For the present analysis, a minimum of 120 Officer Probe-Child Answer-Officer Response sequences were required ($2 \times 3 \times 4 \times 5$) and 1340 three-turn sequences were included in the analysis. Pooling across subjects is routinely done in sequential analysis, but pooling limits generalizability to the present set of interviews (Bakeman & Gottman, 1997). The third assumption of log-linear analysis is that expected frequencies for all two-way associations are greater than one and no more than 20% are less than five. For the present data set, all but one two-way contingency table provided expected frequencies in excess of five.

Model selection. As this was an exploratory analysis, model selection began with an assessment of the saturated model because there were no *a priori* reasons for excluding any of the possible associations. Stepwise selection by simple deletion of effects using BMDP4F revealed that the saturated model was the best fit for the data. When the three-way interaction was removed from the model, the reduced model, which contained all possible two-way interactions and main effects, had a likelihood ratio $\chi^2(6) = 24.96$, $p = .0003$, indicating a poor fit between observed frequencies and expected frequencies generated by the reduced model. This means the saturated model, which includes a three-way interaction between the variables in the Officer Probe- Child Answer- Officer Response sequences as well as all possible two-way interactions and main effects, was the best fit for the data.

Model interpretation. Associations between variables in the saturated model were assessed by examining the marginal frequency table for any significant log-linear parameter estimates. Only significant effects were interpreted. There were significant main effects for each of the variables in the Officer Probe-Child Answer-Officer Response sequence. This simply means that within each variable, the various categories were not equiprobable. These simple probabilities will be used to guide interpretation of significant interactions.

Of the three two-way interactions, only the Officer Probe by Officer Response interaction was nonsignificant. There was a significant interaction between Officer Probe and Child Answer. The simple probability of an “expected” child answer was .77, this increased to .81 after “direct” officer probes and decreased to .52 after “indirect” officer probes. Direct officer probes were more likely than indirect officer probes to elicit expected child answers. The simple probability of an “unexpected” child answer was .19, this increased to .42 after “indirect” officer probes and decreased to .16 after “direct” officer probes. Indirect officer probes were more likely than direct

officer probes to elicit unexpected child answers. No effect of officer probe type on the probability of eliciting the child answer type 'other' was found.

There was a significant interaction between Child Answer and Officer Response. The simple probability of an "unrelated" officer response was .18, this increased to .22 after "expected" child answers. Officers were more likely to make statements or ask new probes that were not related to the information provided in a child's expected answer. The simple probability of a "clarification of initial probe" response was .08. This decreased to .03 after "expected" child answers and increased to .57 after "other" child answers. Officers were more likely to clarify their initial question when the children requested clarification or asked a relevant question. After an expected child answer, officers were less likely to clarify their initial probe. The simple probability of an "acknowledgement" response was .31. This increased to .34 after "expected" child answers and decreased to .06 after "other" child answers. Officers were likely to acknowledge expected child answers and unlikely to acknowledge 'other' child answers.

There was a significant three-way interaction between Officer Probe-Child Answer-Officer Response. The simple probability of a "related" officer response was .43. This increased to .56 after the sequence "direct" probe-"unexpected" answer, decreased to .38 after the sequence "indirect" officer probe-"unexpected" child answer, decreased to .21 after the sequence "direct" probe-"other" answer and increased to .64 after the sequence "indirect" officer probe-"other" child answer. The officers were more likely to make a statement or ask a question about an unexpected child answer when the unexpected answer followed a direct probe than when the unexpected answer followed an indirect probe. Officers were more likely to ask a question or make a statement about a child's request for clarification or child asking a relevant question after an indirect probe than after a direct probe. The simple probability of a "clarification of initial

probe response" was .08. This increased to .40 after the sequence "indirect" probe-"unexpected" answer, increased to .66 after the sequence "direct" probe-"other" answer, increased to .11 after the sequence "direct" officer probe- "unexpected" child answer, and increased to .27 after the sequence "indirect" officer probe-"other" child answer. When an indirect probe or a direct probe elicited an unexpected answer, officers were likely to clarify their initial probe. When the children asked questions of the officer or requested clarification of the officer's probe after both direct and indirect probes, officers were likely to clarify their initial probe.

Discussion

The present research sought to identify developmentally appropriate probe types for use in forensic interviews with young children. Such identification focusses on both the officers' and the children's communicative competence. The officers' communicative competence is their ability to ask questions that seek child-generated information. The children's communicative competence is their ability to provide information requested by the interviewer. Direct probes that requested who, what, where, when, why, how information (e.g., what colour was his hair?) from the children were most effective at eliciting the requested information, compared to the indirect requests for the same information (e.g., do you remember what colour his hair was?). The indirect requests for who, what, where, when, why and how information were more likely to be answered with simple agreement or disagreement responses, clearly indicating that indirect wh- type probes are ineffective for elicitation of information from young children. Direct wh- probes appear to be the most developmentally appropriate probes for use in forensic interviews with young children because they are most likely to elicit functionally appropriate, child-generated answers. This finding suggests that future interview protocols with young children should emphasize the importance of using direct wh- probes to elicit information from the

children. First, however, experimental research is required to assess the accuracy of children's answers to wh- probes.

Other results from the attempt to identify developmentally appropriate probes in the context of a forensic interview are also important. There was no difference in the frequency with which direct open-ended and indirect open-ended responses elicited functionally appropriate responses from these young children. However, it must be noted that the children rarely provided narrative responses to open-ended probes and open-ended probes were not frequently posed to the children. It may be that the RCMP members had already determined that these young children could not provide appropriate answers to open-ended probes. So although the children were not frequently asked open-ended probes, they appeared unable to appropriately answer open-ended probe types, suggesting that open-ended probes are not developmentally appropriate for use in forensic interviews with young children. It should be noted that the children were very good at providing yes/no answers to both direct and indirect yes/no probes. However, these probes are, by nature, problematic in forensic interviews, because one goal of forensic interviews is child-generated content. Indirect yes/no probes are doubly problematic in that the meaning of a yes/no response to an indirect yes/no probe is ambiguous. However, because young children appear adept at providing answers which are appropriate to these probes, although the answers may not be fitting with the goal of the interview, it is somewhat understandable why interviewers would be tempted to use yes/no probe types, especially if the more recommended probe types (open-ended, wh-) are not eliciting appropriate responses.

It is important to be very clear what these results imply. Probes of the form, "Where was that" are preferable to the indirect forms of the probes, "Can you tell where that was?". Thus, the direct probe forms are not recommended to ask a child directly about an abuse event he or she

has not yet acknowledged.

The exploratory part of this research examined interviewers' responses to expected and unexpected child answers, thus focussing on the officer's communicative competence. This portion of the research was inductive; through watching the interviews and work on identifying developmentally appropriate probes for use with young children, it was noticed that quite often young children provided answers that could be considered unexpected. It was also noticed that interviewers responded to these unexpected answers in different ways, some of which seemed to be unproductive. Parts of this analysis repeat the findings of the first research question, namely, that direct probes were more likely than indirect probes to elicit expected answers and indirect probes were more likely than direct probes to elicit unexpected answers. It seems children have more difficulty providing the information that an indirect probe seeks than the information that a direct probe seeks.

An additive finding of the exploratory analysis is that the types of answers the children gave affected the officers' responses to the children. When children's answers made sense to the officers (i.e., were expected), the officers tended to move on to new topics and were unlikely to clarify their initial questions. This approach appears to be an appropriate response on the part of the officer. When children asked for clarification, the officers often gave it. This is appropriate and underscores the importance of making it clear to children that they should ask for clarification if they do not understand the questions they are asked, which is specified in the Step-Wise Interview protocol. The direction for children to request clarification is part of the Step-Wise Interview protocol. Acknowledgement responses were not common after "other" child answers, which included children's requests for clarification, questions to the officers and commands to officers. This is probably because the officer was busy clarifying the child's

questions or otherwise attending to the child's needs (e.g., telling them what time it is after the child asks for time).

The exploratory analysis also identified an interaction between officer probe, child answer and officer response. Unexpected answers were more likely to be clarified when they followed indirect probes than when they followed direct probes. The officers seemed to clarify their initial question when an unexpected answer followed an indirect probe (e.g., rephrasing the question into its direct form) instead of attempting to clarify the child's answer. This appears to be an appropriate response on the part of the officer as the meanings of indirect questions are ambiguous. When "other" child answers followed direct questions, officers were likely to clarify their initial probe and unlikely to clarify the child's answer. This suggests the officers were responding appropriately to the children's requests for clarification. Officers were more likely to make related responses when indirect probes were followed by "other" child answers than when direct probes were followed by "other" child answers. The meaning of this finding is not immediately obvious because the "other" child answer category includes children's requests for clarification as well as instances in which the children were off-task. This and the findings summarized above seem to indicate that in future research children's requests for clarification should be left as a separate category so that we can have a better understanding of the conditions under which children request and obtain clarification from the officers.

In general, the officers appeared to respond appropriately to the children's answers. When the children requested clarification, the officers provided clarification. Officers clarified the meaning of indirect questions that elicited unexpected information from the children. When children provided expected information, officers were likely to acknowledge the answer and move on to new topics. When children provided unexpected information, officers clarified the

child's answer if the initial question had an unambiguous meaning (i.e., was direct).

The statistical techniques used in this study provide useful information about the process of interviewing, the types of probes that elicit certain types of answers and the types of child answers that elicit certain types of officer responses. These techniques are different and more informative than simple counts of certain probe types or certain responses because they take into account the sequential nature of an interview (or any interaction).

An important assumption of the present study is that direct and indirect forms of probes with the same grammatical structure seek to elicit the same response. It was assumed that whether the child was asked, "What was his name," or "Do you remember his name," the interviewer was asking the child to provide a person's name. This assumption was made because it is how adults generally speak, but it may not have been the correct assumption for all indirect probes. It is acknowledged that there are instances in which the interviewer is asking if the child remembers something or is able to do something (Do you remember where you were?, Can you tell me about that?), rather than asking the embedded question (Where were you?, Tell me about that).

As this research was primarily inductive, its results provide suggestions for future deductive studies. The ability of young children to answer direct and indirect questions should now be studied in a more controlled setting, one in which the frequency of different probe types is controlled and the accuracy of children's responses can be determined. More information is required on young children's abilities to answer both direct and indirect open-ended questions since open-ended probe types had a low frequency in the present study. Manipulation of the frequencies of probe type would permit complete analysis of each interview and prevent the need to pool interviews to generate enough data to analyse. It would also permit comparisons across

interviewer-child dyads to assess individual differences.

The present research presented a description of the three-turn sequence: officer probe, child answer and officer response. Future research could use a similar coding scheme on interviews which are considered to be good interviews or bad interviews by some objective standard and compare the log-linear models which are generated by the two interview types to determine if there may be something about the way officers respond to children's answers that contributes to a good or bad interview. In conclusion, this research emphasizes the need for the development of an interview protocol that is developmentally appropriate for use with young children if we are going to continue to rely on their testimony.

References

- Bakeman, R., & Gottman, J. M. (1997). Observing interaction: An introduction to sequential analysis (2nd Ed.). New York: Cambridge University Press.
- Bakeman, R., & Dorval, B. (1989). The distinction between sampling independence and empirical independence in sequential analysis. Behavioral Assessment, 11, 31-37.
- Baker-Ward, L., Gordon, B. N., Ornstein, P. A., Larus, D. M., & Clubb, P. A. (1993). Young children's long-term retention of a pediatric examination. Child Development, 64, 1519-1533.
- British Columbia. Provincial Health Officer. (1998). A report on the health of British Columbians: Provincial Health Officer's annual report 1997. Feature report: The health and well-being of British Columbia's children. Victoria, BC: Ministry of Health and Ministry Responsible for Seniors.
- Cairns, H. S., & Hsu, J. R. (1977). Who, why, when, and how: A development study. Journal of Child Language, 5, 477-488.
- Cassel, W. S., Roebbers, C. E. M., & Bjorkland, D. F. (1996). Developmental patterns of eyewitness responses to repeated and increasingly suggestive questions. Journal of Experimental Child Psychology, 61, 116-133.
- Dore, J. (1977). "Oh them Sheriff": A pragmatic analysis of children's responses to questions. In S. Ervin-Tripp, & C. Mitchell-Kernan (Eds.), Child Discourse (pp.139-163). New York: Academic Press.
- Ervin-Tripp, S. (1970). Discourse agreement: How children answer questions. In J. R. Hayes (Ed.), Cognition and the development of language (pp. 79-107). New York: John Wiley & Sons.

- Ervin-Tripp, S., & Miller, W. (1977). Early discourse: Some questions about questions. In M. Lewis, & L. A. Rosenblum (Eds.), Interaction, conversation and the development of language (pp. 9-25). New York: John Wiley & Sons.
- Fivush, R., & Schwarzmuehler, A. (1995). Say it once again: Effects of repeated questions on children's event recall. Journal of Traumatic Stress, 8, 555-580.
- Goodman, G., & Reed, R. (1986). Age differences in eyewitness testimony. Law and Human Behavior, 10, 317-332.
- Hardy, C. L., & Hewlett, M. G. (1997) Coding procedure for the Step-Wise Interview. (Available from Cindy Hardy, Department of Psychology, University of Northern British Columbia, 3333 University Way, Prince George, BC V2N 4Z9).
- Hooper, R. (1971). Communicative development and children's responses to questions. Speech Monographs, 38, 1-9.
- Hutcheson, G. D., Baxter, J. S., Telfer, K., & Warden, D. (1995). Child witness statement quality: Question type and errors of omission. Law and Human Behavior, 19, 631-648.
- Lamb, M. E., Hershkowitz, I., Sternberg, K. J., Esplin, P. W., Hovav, M., Manor, T., & Yudilevitch, L. (1996). Effects of investigative utterance types on Israeli children's responses. International Journal of Behavioral Development, 19, 627-637.
- Lamb, M. E., Sternberg, K. J., & Esplin, P. W. (1994). Factors influencing the reliability and validity of statements made by young victims of sexual maltreatment. Journal of Applied Developmental Psychology, 15, 255-280.
- Lloyd, R. M. (1992). Negotiating child sexual abuse: The interactional character of investigative practices. Social Problems, 39, 109-124.
- Markova, I., & Linell, P. (1996). Coding elementary contributions to dialogue: Individual acts

- versus dialogical interactions. Journal for the Theory of Social Behavior, 26, 353-373.
- Menig-Peterson, C. L., & McCabe, A. (1978). Children's orientation of a listener to the context of their narratives. Developmental Psychology, 14, 582-592.
- Nelson, K. (1986). Event knowledge: Structure and function in development. Hillsdale, NJ: Erlbaum.
- O'Keefe, C. A., Hardy, C. L., & Hewlett, M. G. (1999, April). Probe-response sequences in forensic interviews with young children. Poster presented at the biennial meeting of the Society for Research in Child Development, Albuquerque, NM.
- Parnell, M. M., & Amerman, J. D. (1983). Answers to wh-questions: Research and application. In T. M. Gallagher, & C. A. Prutting (Eds.), Pragmatic assessment and intervention issues in language (pp. 129-150). San Diego, CA: College-Hill Press.
- Parnell, M. M., Patterson, S. S., & Harding, M. A. (1984). Answers to wh- questions: A developmental study. Journal of Speech and Hearing Research, 27, 297-305.
- Perry, N. W., McAuliff, B. D., Tam, P., Claycomb, L., Dostal, C., & Flanagan, C. (1995). When lawyers question children: Is justice served? Law and Human Behavior, 19, 609-629.
- Peterson, C., & Bell, M. (1996). Children's memory for traumatic injury. Child Development, 67, 3045-3070.
- Peterson, C., & Biggs, M. (1997). Interviewing children about trauma: Problems with "specific" questions. Journal of Traumatic Stress, 10, 279-290.
- Peterson, C., & McCabe, A. (1994). A social-interactionist account of developing decontextualized narrative skill. Developmental Psychology, 30, 937-948.
- Poole, D. A., & White, L. T. (1991). Effects of question repetition on the eyewitness testimony of children and adults. Developmental Psychology, 27, 975-986.

- Poole, D. A., & White, L. T. (1993). Two years later: Effects of question repetition and retention interval on the eyewitness testimony of children and adults. Developmental Psychology, 29, 844-853.
- Saywitz, K. J., Nathanson, R., & Snyder, L. S. (1993). Credibility of child witnesses: The role of communicative competence. Topics in Language Disorders, 13, 59-78.
- Snyder, L. S., Nathanson, R., & Saywitz, K. J. (1993). Children in court: The role of discourse processing and production. Topics in Language Disorder, 13, 39-58.
- Sternberg, K. J., Lamb, M. E., Hershkowitz, I., Esplin, P. W., Redlich, A., & Sunshine, N. (1996). The relation between investigative utterance types and the informativeness of child witnesses. Journal of Applied Developmental Psychology, 17, 439-451.
- Tabachnick, B. G., & Fidell, L. S. (1996). Using Multivariate Statistics (3rd Ed.). New York: HarperCollins.
- Tyack, D., & Ingram, D. (1976). Children's production and comprehension of questions. Journal of Child Language, 4, 211-224.
- Underwager, R., & Wakefield, H. (1990). The real world of child interrogations. Springfield, IL: Charles C. Thomas.
- Walker, A. G. (1993). Questioning young children in court: A linguistic case study. Law and Human Behavior, 17, 59-81.
- Yuille, J. C. (1988). The systematic assessment of children's testimony. Canadian Psychology, 29, 247-262.
- Yuille, J. C., Hunter, R., Joffe, R., & Zaparniuk, J. (1993). Interviewing children in sexual abuse cases. In G. S. Goodman & B. L. Bottoms (Eds.), Child victims, child witnesses: Understanding and improving testimony. (Pp. 95-115). New York: Guilford.

Yuille, J. C., & Wells, G. L. (1991). Concerns about the application of research findings: The issue of ecological validity. In J. Doris (Ed.) The suggestibility of children's recollections. (pp. 118-128). Washington, DC: American Psychological Association.

Appendix A

RCMP Contact Letter and Consent Forms

August, 1996

Dear Officer,

Staff Sergeant Wayne Roberts, Prince George detachment, is forwarding this letter to you on my behalf. We are conducting an evaluation of the interviewing techniques RCMP officers use with children during investigations of alleged child sexual abuse. To carry out this project it is necessary that we view a number of archived videotaped interviews with child witnesses.

Records indicate that videotapes of interviews you conducted with child witnesses are archived under the care and control of Staff Sergeant Roberts. We are asking your permission to use one or more of these videotapes in our study.

If you give us your permission to view one or more videotapes of your interviews, we will then contact legal guardians of the children on the videotapes and ask their permission as well. Both you and the legal guardian must give permission to use a given videotape before it can be included in the study.

The main goal of this study is to evaluate current interviewing practices. The final report will highlight current areas of strength and identify areas in which training might be improved. In the final report, only group data will be reported and no individual officer or child will be identified. There is a place on the consent form for you to indicate whether you would like to receive a copy of the final report.

Please complete the attached consent form, seal it in the enclosed envelope, and send it to Staff Sergeant Wayne Roberts. He will collect the completed forms and forward them to me. If you have any questions or concerns about this project, please contact me at the number given below. Thank you for your interest in our study.

Sincerely,

Cindy Hardy, M.A.
Psychology
960-5814

RCMP OFFICER'S CONSENT FORM (ONE)

Name of Officer: _____
(please print)

I understand that Professor Cindy Hardy is doing a study to evaluate interviewing techniques used with children during investigations of child sexual abuse. If I agree to participate in this study, videotapes of one or more of the interviews I have conducted with child witnesses will be viewed by the research team. I understand that confidentiality will be protected, all reports will be based on group information, and no individual will be identified in reports.

=====

Please check one of the following:

☐ I AGREE to participate. One or more of the interviews I have conducted with child witnesses can be used in the study.

☐ I PROVISIONALLY AGREE to participate. One or more of the interviews I have conducted with child witnesses can be used in the study but I want to be told which interviews will be used and may withhold consent for use of particular interviews. (If you choose this option we will contact you again once we have obtained consent from legal guardians. At that time, you will be asked to complete a consent form like the one shown on the next page.)

☐ I DO NOT AGREE to participate in the study. None of the interviews I have conducted with child witnesses can be used in the study.

Signature: _____ Date: _____

=====

☐ Check here if you would like to receive a copy of the final report from this project.

=====

If you agree or provisionally agree to participate, please complete the following questions.

Have you attended an inter-agency joint training session on interviewing children?

YES _____ NO _____

If yes, who conducted the workshop? (check one)

- ☐ Staff Sergeant Wayne Roberts
- ☐ Dr. John Yuille, University of British Columbia
- ☐ Other (please specify _____)
- ☐ Unknown

If yes, what was the approximate date of the training session? _____

RCMP OFFICER'S CONSENT FORM (TWO)

Name of Officer: _____

Dear Officer,

When we contacted you earlier, you provisionally agreed to participate in our evaluation of interviewing techniques used with children during investigations of alleged child sexual abuse. You withheld full consent pending our notification of which videotaped interview(s) we would use in the study.

The legal guardian of the child named below has given us permission to use the following interview. We are now asking you for your permission to use the interview.

=====

Clinic Tape Number: _____

Date of Interview: _____

Please check one of the following:

☐ I AGREE to participate. You may use the interview identified above.☐ I DO NOT AGREE to participate. You may not use the interview identified above.

Signature: _____

Date: _____

=====

Appendix B
Parent Consent Forms

September, 1996

Dear Parent,

_____, from RCMP Victim Services, is forwarding this letter to you on my behalf. In collaboration with the Prince George RCMP, I am conducting a research study to evaluate the interviewing procedures RCMP officers use with children, and I need your assistance. In order to carry out this project, I must view videotapes of interviews conducted by RCMP officers.

This project does not require further contact with your child. However, if you feel it is appropriate, you may choose to describe the study to your child. I do not know your name, telephone number, or address, and will not contact either you or your child. The goal of the project is to find ways to improve the interviews RCMP officers do with children. Your assistance with this project may benefit other children who must be interviewed by police. I am not interested in the details your child reported during the interview. I am only interested in the procedures the officer used during the interview. Confidentiality will be fully protected in this evaluation project. Each videotape will be assigned an identification number so that your child's name will not be used. You can be assured that no records will be produced using your child's name or any other identifying information. All reports from this study will be based on group information and no individual will be identifiable in the reports.

When you spoke with the RCMP Victim Services volunteer, you indicated that you were willing to give me permission to use the videotaped interview of your child that is on file at the RCMP office in Prince George. Before the videotape can be used in the study, I need your written permission. To give permission, please complete the attached consent form.

If you would like to receive a summary of the findings from this project, check the appropriate box on the consent form. RCMP Victim Service volunteers will mail the report to you when it is ready, which will be one to two years from now. If you have questions or concerns about the study, please contact either myself, at the number given below, or the RCMP Victim Services volunteer whose card is attached to this letter. Thank you for your interest.

Sincerely,

Cindy Hardy, M.A.
Psychology
960-5814

PARENT CONSENT FORM

Name of Parent/Legal Guardian: _____
(please print)

File Number: _____

=====

I understand that confidentiality will be fully protected in this study and that researchers will not contact myself or my child.

Please check one of the following:

☐ I AGREE to participate. The existing videotaped interview with my child can be used in the study.

☐ I DO NOT AGREE to participate in the study. The existing videotaped interview with my child can not be used in the study.

Signature: _____ Date: _____

=====

Would you like to receive a summary of the findings of this study?

☐ YES

☐ NO

Appendix C

RCMP Victim Services Telephone Script and Tip Sheet

TELEPHONE SCRIPT

May I speak to _____?
(name of parent)

Once you have parent on phone:

Hello, my name is _____ and I am with the RCMP Victim Services. (explain role of Victim Services if necessary).

If you wish to confirm that I am with RCMP Victim Services, you may call me back at the police station, at 561-3300. When you get the switchboard operator, ask for _____.
(your name)

Once they have called you back, proceed.

Are you the parent of _____?
(name of child)

I am calling because your help is required. The Prince George RCMP are involved in an evaluation of the interviewing procedures they use with children. This evaluation project is being conducted by Professor Cindy Hardy of the Psychology Program at UNBC. In order to carry out this project, the researchers must view videotapes of interviews that were conducted by RCMP officers.

1. *This project does not require contact with your child, although you may wish to discuss it with him/her. The researchers do not know your name, telephone number, or address, and will not contact you or your child.*
2. *The goal of the project is to find ways to improve the interviews RCMP officers do with children. Your assistance with this project may benefit other children who must be interviewed by police.*
3. *The researchers are not interested in the details your child reported during the interview. They are only interested in the procedures the police officer used during the interview.*
4. *Confidentiality will be fully protected in this evaluation project. Each videotape will be assigned an identification number so that your child's name will not be used. You can be assured that no records will be produced using your child's name or any other identifying information.*

I am calling to ask your permission to use the videotaped interview of your child that is on file at the RCMP office in Prince George. Will you give permission?

If parent says NO: Record that permission was denied and thank them for their time.

If parent says YES:

Do you have any questions about this project? Answer any questions/concerns they may have.

Are there any ongoing criminal or civil proceedings related to this case? (e.g., custody case)

If yes,

The researchers may not want to use your child's interview. I am going to check with my supervisor and will call you back in the next couple of days.

If no, proceed.

We need written permission from you to use the videotape of your child's interview in the study.

Families in Prince George:

Can we find a time to meet, either at your home or elsewhere, so I can deliver a letter describing the study and get your written permission?

(Set time and date, check address, and give them a number where they can reach you in case they have to change the meeting time. Ask them whether they would like you to call the night before the scheduled meeting to confirm. Thank them for their time)

Families outside Prince George:

I will arrange for a local RCMP officer or Victim Service worker to contact you. He/She will meet with you to deliver a letter describing the study and to get your written permission. Is that OK?

(Ensure that they are comfortable with being contacted by a local RCMP representative.)

THANK PARENT FOR THEIR TIME AND INTEREST

CONCERNS PARENTS MAY HAVE

Confidentiality/Privacy

1. Why is the videotape on file?
RCMP are required to retain all evidence for a period of 99 years.
2. How did you get my name (or child's name)?
Study is being done in collaboration with RCMP in Prince George, and they have your

name (your child's name) on file.

3. How did you get my phone number?
Be honest: Police records, telephone book, etc.
4. The researchers do not know your name, address, or telephone number. Any and all contacts with you will be done by RCMP Victim Service volunteers.
5. Videotaped interviews will be released to researchers on a short-term basis only. While in possession of a videotape, researchers will store it in a locked cabinet in a private locked room. Once researchers have finished reviewing the tape, it will be returned to the RCMP.
6. No one will have access to the videotape except the researchers directly involved in the study (i.e., Prof. Cindy Hardy and Master's student Maureen Hewlett).
7. No records containing your name or your child's name will be produced. All cases will be identified by number only.
8. No individual will be identified in the final report. The report will be based on group information.

Purpose of Research

1. The goal of this project is to evaluate the interview techniques used with child witnesses. Specifically, the goals are to identify interview techniques which:
 - a. maximize children's well-being and comfort during police interviews, and
 - b. maximize the probability that accurate information is obtained from child witnesses
2. The researchers are working closely with RCMP Staff Sergeant Wayne Roberts, who trains RCMP officers in interview techniques for use with child witnesses. When the study is complete, the researchers will make recommendations to Staff Sergeant Roberts, and these recommendations will be incorporated in the training that police officers receive.
3. Will researchers tell me how my child's interview went?
No, researchers will report group summaries only.

Appendix D
Officer Probe Type Coding Manual

Probe Type

Rationale. Probe Type is to be scored whenever Turn Type = 3 "mixed segment" or 4 "probe", and will be used to classify questions and probes according to their linguistic structure. These codes draw on work by Peterson & Biggs (1995) and Walker (1993).

General definitions. **Direct** probes have relatively simple syntax and their meaning is unambiguous. In contrast, **indirect** probes have more complex syntax and the meaning of indirect probes and their answers are often ambiguous. At a concrete level, indirect probes can be answered with either a "yes" or a "no" response, but at a less concrete level, they contain requests for further information. For example, in the indirect probe "Do you remember if he was there?", it is not clear whether the questioner is asking about the interviewee's memory or the presence of the person referred to as "he". Furthermore, a "Yes" response could mean two things ("yes, he was there" or "yes, I remember") and a "No" response could mean two things ("no, he wasn't there" or "no, I don't remember"). Phrasings such as "Do you remember X?", "Can you tell me X?" or "Do you know X?" ALMOST ALWAYS signify an indirect structure (where X is any proposition).

Open-ended probes are very general requests for information intended to elicit a narrative-type response. The content of the expected answer is left open for the interviewee to interpret as he/she sees fit. We will distinguish between open-ended probes which request narratives about events from other types of open-ended probes. **Wh-** probes are intended to elicit specific information, such as details about who, what, where, when, why, how, how many, or how much, and do not have potential answers embedded in the probe. Questions regarding the names and functions of body parts will usually be coded as Wh- questions. **Multiple choice** probes offer a choice of responses embedded in the question. **Yes/No** probes ask the interviewee

to indicate agreement or disagreement with a proposition. **If, then** probes contain conditional statements, as in "if X, then Y", where X is some condition and Y is the probe requiring an answer, and may be phrased in a variety of ways. Officers frequently use If-then structures when attempting to assess the child's knowledge of truths and lies. **Requests for repetition** are probes used to request the interviewee to repeat or clarify his/her immediately preceding response.

Other probe types will be scored whenever a probe is not classifiable as one of the above types and includes commands issued by the officer to the child in a probe form. This is a "garbage" category and should be used sparingly.

Specific definitions. The values for this variable and examples for each value are given below.

0 = Not applicable. Assign a score of 0 when Turn Type is not scored as 3 or 4 (i.e., when the officer's turn is not a mixed segment or a probe).

1 = Direct open-ended (Event) Probes that have an direct structure and are intended to elicit a narrative-type response about an event.

Examples

"You went to the zoo. Tell me about that."

"Describe what happened yesterday."

2 = Explicit wh- Probes that have a direct structure and are requests for specific details but do not contain potential answers.

Examples

"Who was there?"

"What was he wearing?"

"Where did that happen?"

"When was that?" or "What time was it?"

"Why did you do that?" or "How come you did that?"

"How many people were there?"

"What's this part called?"

"What do you use your legs for?"

3 = Direct multiple choice Probes that have an direct structure and have a choice of answers embedded in the question.

Examples

"Was his hair brown or black?"

"Were you wearing pants or a skirt?"

"Were there four or six people there?"

4 = Explicit yes/no Probes that have an direct structure and ask for agreement or disagreement with a proposition.

Examples

"Was he there?"

"Do you forget?"

"Did you like that?"

"Are you sure?"

"No, no one?"

5 = Indirect open-ended Probes that have an indirect structure and are intended to elicit a narrative-type response.

Examples

"Can you tell me more about that?"

"Can you explain what you mean?"

"Can you tell me what happened yesterday?"

6 = Indirect wh-

Probes that have an indirect structure and request specific details but do not contain potential answers.

Examples

"Do you remember who was there?"

"Can you tell me what he was wearing?"

"Do you know where that happened?"

"Do you remember what time it was?"

"Do you know why he did that?"

"Can you tell me how many people were there?"

"Do you have other names you call it?"

7 = Indirect multiple choice

Probes that have an indirect structure and have a choice of answers embedded in the question.

Examples

"Do you know if his hair is brown or black?"

"Do you remember if there were three or six people there?"

"Can you tell me if you were wearing pants or a skirt?"

8 = Indirect yes/no

Probes that have an indirect structure and ask for agreement or disagreement with a proposition.

Examples

"Do you know if he was there?"

"Can you tell me whether you forget?"

"Do you remember if you liked that?"

"Do you think you can help me?"

9 = "If-then"

Probes that contain conditional statements, as in "if X, then Y", where X is some condition and Y is the probe requiring an answer

Examples

"If I said your hair was purple, then would I be telling the truth or telling a lie?"

"If I said your hair was purple, what's that?"

"What about when I take a drink from the cup, what do I touch it with?"

10 = Request for repetition

Probes used to request the interviewee to repeat and/or clarify his/her immediately preceding response.

Examples

"Pardon me?" or "Excuse me?"

"Your birthday was a long time?" (officer is asking for clarification of child's previous statement)

11 = Other

Any questions not classifiable as one of the above types. Includes implied commands.

Examples

"Do you want to have a seat here?"

"Will you come in?"

12 = Direct open-ended

(Nonevent)

Probes that have a direct structure and are intended to elicit a narrative-type response about a nonevent.

Examples

"You have two dads. Tell me about that."

13 = Indirect open-ended (Nonevent) Probes that have an indirect structure and are intended to elicit a narrative-type response about a nonevent.

Examples

"You have two dads. Can you tell me about that?"

33 = Inaudible or incomplete Assign a score of 33 when a segment is inaudible or incomplete.

Decision rules. The following decision rules should be used to clarify difficult coding decisions.

1. If coders can not decide whether a probe has an indirect structure or is an direct Yes/No probe, it should be coded as an explicit Yes/No question.
2. When a probe has the **If, then** structure, coders must decide whether the condition X is essential to understand the probe properly or whether the condition X is being used for purposes other than listener comprehension (e.g., to pressure the interviewee). If the condition X is essential to proper understanding, then code the question as an **If, then** type, even though it may also fit into one of the other probe types (e.g., multiple choice). If the condition X is NOT essential to proper understanding, then code the question as some other category (as appropriate).

Examples

"If you don't remember, then why did you tell your mom that you did?"

"If I said to you, can you tell me what's telling a lie, what would you say?"

The conditions are not necessary for understanding these questions, so code as explicit wh- questions.

3. DO NOT code a segment as an **If, then** probe if you can not decide whether a condition is essential for understanding the question, . Use another appropriate category.

Examples

"If it's the truth, do we get in trouble for telling the truth?"

"If he came in here right now, would you recognize him?"

It is not clear whether the condition is essential for understanding the question, so code as an explicit yes/no question.

4. On occasion, multiple choice questions are phrased as a series of separate segments. In such situations, use a decimal to indicate that the question has multiple segments. The following sequence illustrates this coding rule.

OF: "What day is it?" **explicit wh-**

CH: "I don't know."

OF: "Is it Monday?" **first part of multi-segment MC question, code as 3.1**

OF: "Tuesday?" **second part, code as 3.2**

OF: "Wednesday?" **third part, code as 3.3**

OF: "Thursday?" **fourth part, coded as 3.4**

In this example, if the child had replied after the officer's question "Is it Monday?", that question would have been coded as an explicit yes/no, and "Tuesday?" would have been coded as 3.1, "Wednesday?" as 3.2, and "Thursday?" as 3.3.

5. When coding indirect questions, coders will usually have to decide what the implied question is before they can identify the type of implied question. One method to help decide this is to ask yourself what information you would provide if you were asked the question.

Examples: "Can you tell me about your last birthday party?" would be interpreted by most adults as meaning "provide an account of my last birthday party", and it is an indirect open-ended probe.

"Do you remember what time it was?" would be interpreted by most adults as meaning "what time was it?", and it is an indirect wh- probe.

6. When a series of probes contains some grammatically incomplete probes which are incomprehensible by themselves but make sense in context, code the grammatically incomplete probes the same way the probe occurring immediately before the grammatically incomplete probe was coded. Apply this rule only in those situations where the officer's turns are sequential with no reply from the child occurring between the parts of the officer's conversational turn.

Example "Can you tell me anything else about him? About what he looked like?"
code both segments as indirect wh- probes because that's what the first probe is and the second probe is grammatically incomplete.

Appendix E

Child Answer Coding Manual

Child Answer Coding Manual

General Instructions

Each child response to an officer probe (coded as Turn Type 3 or 4 in Pass 3) will be coded. The child's response is defined as the first turn after an officer probe and can be verbal or nonverbal. A turn is comprised of the segment or consecutive segments that a child makes before the officer speaks again. Each turn will be scored as "1" if the content is present in the response, "0" if the content is not present in the response, or "33" if any segment of the response is inaudible or incomplete for each of the coding categories. All response codes will be entered on the same line as the probe to which they apply is coded in the Excel spreadsheet. Coding will be done from videotapes of the interviews and attention will be paid to correct any miscoded probes from Pass 3.

Coding Categories

The responses will then be coded for the following content (modified from Underwager & Wakefield, 1990):

Agreement

the response contains explicit agreement with or affirmation of an officer probe. This includes head nods and paralinguistic phrases (e.g., uh-uh) which are clearly agreement (as indicated by nonverbal behaviour).

Examples

Q. Was it the police office?
A. Yeah.

But not:

Q. Can you tell me where it happened?
A. In the living room.

Disagreement

the response contains explicit disagreement or negation of an officer probe. It will usually involve the words "no" or "not." This includes head shakes and paralinguistic phrases (e.g., unh-unh) which are clearly disagreement (as indicated by nonverbal behaviour) and double negatives.

Examples

Q. Do you know what day it is?
A. No, I don't know what day it is.

Q. Can't remember?

A. No.

But not:

Q. Can you tell me how old you are?

A. I have a dog.

Partial Agreement

The response contains partial or qualified agreement of an officer probe.

Examples

Q. Was it dark out?

A. Sort of, the mosquitos were out. (Partial agree, relevant)

Q. Was it dark out?

A. Yeah, I think.

But not:

Q. Was it brown or black?

A. It was brown.

Relevant Information

The response contains information related to the officer probe. This can be a nonverbal response. The response must add information or, in the case of multiple choice questions be a choice of one of the alternatives and not merely be a repetition of the officer's probe.

Examples

Q. Where was that?

A. In your office.

Q. Can you tell me where he touched you?

A. (child points to diagram)

Q. Did your mom talk to you about it?

A. Yeah, she talked about it last night. (Agree, relevant)

Q. Is that a truth or a lie?

A. A lie

But not:

Q. Did your mom talk to you about it?

A. Yeah, she talked to me about it.

Irrelevant Information

the response contains information which is not related to the officer's probe. The lack of relevance may be due to miscommunication (e.g., the child did not understand the question).

Examples

Q. How old would this person be?

A. He was touching me.

Q. When was the last time you saw him?

A. I saw him lots of times.

Refusal to Answer

The response indicates the child is unwilling to participate in interview and/or to answer the probe. This may be in the form of a question.

Examples

I want to go now.

I don't want to say.

Can I see my mom now?

Q. Is that too scary for you?

A. I don't want to talk.

Q. What are you afraid of?

A. I don't like talking to other people.

Q. How come?

A. Because I don't want to talk right now.

Clarification

The response contains a request for clarification or clear indication that the child wants officer to repeat probe.

Examples

Q. Do you know what day it is?

A. Day it is?

Q. Do you know what day it is?

A. Huh?

Don't Know

The response contains some version of "don't know." This includes shrugs.

Examples

I don't remember.

I don't know.

I forget.

Relevant Question

The response contains a question seeking information which is relevant to the officer's preceding probe. This does not include questions that would be included in the Refusal to Answer or Clarification categories.

Examples

Q. Do you know what day it is?

A. Wednesday. What time is it?

Q. Do you know what it is?

A. What?

Note: Use intonation, timing and nonverbal cues to differentiate this type of "what?" from the clarifying "what?" This type of exchange is a linguistic convention.

Irrelevant Question

The response contains a question seeking information which is irrelevant to the officer's preceding probe. This does not include questions that would be included in the Refusal to answer or Clarification categories.

Examples

Q. What color is this?

A. Do I have to talk in here?

No Response

The child gives neither a verbal nor nonverbal response to a probe.

Other

The response does not fit into any of the above categories. This includes the child ignoring an officer command, the child giving a command to the officer, indications that the child is thinking of an answer (e.g., ummm) and times when the child is not visible and does not give a verbal response.

Decision Rules

When the officer presents a series of statements without giving the child time to speak, use the following decision rules to decide how to code the child's responses to probes:

1. When one probe is immediately followed by a second probe, with no chance for the child respond to the first probe, assign "No response" to the first probe.

Example

Q. What does he look like? (NR) Can you tell me what colour his hair is?
A. Brown (related).

2. When a probe is followed by an incomplete segment (Turn Type = 33) which is in turn followed by a child turn, the child turn should be treated as a response to the probe.

Example

Q. What does he look like? Can you...
A. He has brown hair. (Related).

3. When a probe is followed by a complete officer segment that is not a probe, assess whether the intervening segment(s) is related or connected to the probe.

If connected, then code the child's next turn as the response to the probe.
If not connected, assign "no response" to that probe.

Example

4. If the child has a long turn punctuated by "uh-uhs" from the officer, code the child's entire turn (i.e., ignore the "uh-uhs").

Inaudible/incomplete turns

1. If the turn contains only one segment and that segment is inaudible/incomplete, code the turn as "33."
2. If the turn contains more than one segment and at least one segment is audible and complete, code the turn on the basis of the audible complete segments and ignore the inaudible/incomplete segment(s).

Appendix F

Expectedness of Child Answer Coding Manual

Expectedness of Child Answer Coding Manual

It is assumed that the direct and indirect forms of a particular probe seek the same expected response. For example, it is assumed the direct question, "What is your name?" and the indirect question, "Can you tell me your name?" are both seeking the expected response of the child's name.

General Definitions

Expected answer

contains the information sought by the preceding probe and the information is sufficient to answer the probe.

Unexpected answer

does not contain the information sought by the preceding probe and/or the information is not sufficient to answer the probe.

Coding

Some of the previous coding of Child Answer Type can logically be defined as expected or unexpected in relation to different probe types without further observation of the interviews. However, some of the child turns will need to be actively observed and coded for their expectancy.

The table below summarizes which variables can be logically recoded for their expectedness from the Child Answer Variables.

Probe Type	Expectancy	Child Answer Variables
open-ended	expected	-----
	unexpected	agreement, disagreement, partial agreement
wh-	expected	-----
	unexpected	agreement, disagreement, partial agreement
yes/no	expected	agreement, disagreement
	unexpected	-----

Note. — indicates that no Child Answer Variable can logically be defined for expectedness for the category.

For all probe types the following child answer variables are always considered unexpected:

Irrelevant Information
 Don't know.
 Refusal to answer
 Irrelevant Question
 No Response.

Because relevant answers are not necessarily expected answers, relevant child answer types will always have to be assessed individually in relation to the probe preceding them in order to assess their expectancy.

Probe Type	Relevant-Expected Answer	Relevant-Unexpected Answer
open-ended "Tell me what happened." "Can you tell me what happened?"	We were in the living room, on the couch and he touched me.	We were in the living room.
wh- "Why did you do that?" "Do you know why you did that?"	Because I was scared.	'Cause.
yes/no "Did you know him?" "Can you remember if you knew him?"	Yes, I met him before.	Yes, my cat's name is George.

Open-ended probes will require a narrative (at least two aspects of the event must be described: who, what, where, when, how, why, how much) about the information asked for in the probe.

Appendix G
Officer Response Coding Manual

Officer Response Coding Manual

General Instructions

An officer response is defined as the first officer segment which immediately follows a child's answer to an officer probe for information. *A segment is defined as* Each officer response segment will be scored as "1" if the content is present in the response, "0" if the content is not present in the response, or "33" if any segment of the response is inaudible or incomplete for each of the coding categories. Scores for officer response codes will be entered on the same line of the Excel spreadsheet as the officer probe for information which began the three-turn sequence of interest. Therefore, coding for each turn in the three-turn sequence consisting of officer probe for information, expectedness of child response and officer response will be on the same line of the data file. Coding will be done from transcripts and videotapes of the interviews.

Data files for this pass of coding will only contain the variables necessary to identify officer responses. These variables include Line Reference Number, Turn Type and Child Answer Type. The variables of Probe Type and Expectedness will not be included in the data files as they may influence coding of officer response type. Officer Response turns will be identified by searching the child answer variable (resptype) data for the presence of any type of child response except 'no response' (resptype=11), 'other' (resptype=12) or incomplete/inaudible (resptype=33). A decision has been made to exclude three-turn sequences for which the child's answer is a no response. No Response answers are ambiguous in that the child may have chosen not to answer or they may not have been given sufficient time to answer an officer probe, as is the case when a series of probes are rapidly presented to the children.

Coding Categories

Once officer response turns are identified they will be coded for the following content:

Related Probe

The officer uses a probe to clarify or elaborate the child's answer to the preceding officer probe.

The key concept is that the officer in his/her response is attempting to obtain a satisfactory response to the initial officer probe.

This includes repetition of the child's answer if it is seeking information.

Examples:

Q. Do you know what that is?

A. No.

R. You don't?

Q. Do you want to talk to me alone?

A. No.

R. You want mommy in here, eh?

Q. Can you remember what you got for Christmas last year?

A. Yes.

R. Can you tell me what you got?

Q. Would you like to tell me?

A. No.

R. Why not?

Q. What do you do when you go over there?

A. My grandpa takes me for a horseback ride all the time.

R. Bike ride?

Q. What does daddy look like?

A. Brown.

R. Brown?

Q. Do you ever go visit?

A. I went there and saw Jody.

R. Who's Jody?

Related Statement

The officer makes a statement that is related to the information provided by the child's answer to the preceding probe for information.

This includes:

officer comments on the content of the child's answer (e.g., wow).

When the officer gives the child the appropriate answer to the initial officer question.

Tag questions

Examples:

Q. Can you tell me your address?

A. Prince George (said softly)

R. Can't hear you. OR Gotta say it louder.

R. Really!; Oh, that's nice

New Probe for Information

The officer probes for information which is not related to the information provided in the

child's answer to the preceding question.

The officer is not dissatisfied with the child's answer and is moving onto a new question.

Examples:

- Q. What is your address?
- A. Billy touched me.
- R. What is your phone number?

- Q. What colour is your bike?
- A. Green.
- R. Do you wear a helmet?

- Q. Do you every stay at your cousin's house?
- A. No.
- R. Do you ever go visit?

- Q. Who's Sam?
- A. My cousin.
- R. Where does Sam live?

Unrelated Statement

The officer makes a statement that is not related to the information provided by the child's answer to the preceding probe for information.

Examples:

- Q. Where in the house were you?
- A. The living room.
- R. Oh, I have to change the videotape

Clarification of Initial Probe for Information

The officer clarifies the initial probe for information which preceded the child's answer.

This attempt to clarify may be a simple repetition.

Excludes occasions when officer clarifies by giving the expected answer, unless he clearly poses the question again.

Examples:

Q. Does mommy use the fork?

A. Like what?

R. That special fork, does mommy use it?

Acknowledgement

The officer acknowledges the child's answer. Repetition of a child's answer is coded as acknowledgement if they *are not* seeking information.

Examples:

Q. Pardon?

A. That's it.

R. That's it.

R. Okay; hm-hm; Oh, I see; Oh.

Other

The response does not fit into any of the above categories.

Decision Rules:

1. If a nonverbal child answer is followed by an officer response which either repeats or attempts to confirm the child's answer code the officer response as a related probe on the assumption the officer is trying to elicit a verbal response. Examples: You are? You don't, eh?
2. "Pardon" is always coded as a related probe even if the transcript indicates it is a statement.
3. When the first-turn of the sequence (i.e., the officer's initial probe) is uninterpretable by itself, coders should review immediately preceding information and use that information

to give meaning to the initial probe.

e.g., Q. Cause how? (*Means- how do you know he told him that?*)

A. Cause he telled him to do it.

R. How do you know he telled him?

4. If the turn which initiates the three-turn sequence is actually not a probe, code '99' for all officer response categories.

Appendix H
Frequency Tables for Primary Coding

Table H1

Officer Probe Type Frequencies by Interview

Probe Type	Interview												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
direct open-ended	2	1	0	0	8	1	0	0	3	13	3	1	32
direct wh-	75	36	39	44	142	18	42	44	38	63	49	44	634
direct mc	6	4	2	3	0	4	2	6	0	3	0	0	30
direct yes/no	83	21	74	33	142	27	37	47	47	44	84	46	685
indirect open-ended	1	4	2	0	2	0	1	1	6	19	3	2	41
indirect wh-	8	3	46	8	37	1	6	12	4	7	10	9	151
indirect multiple choice	0	0	1	0	0	0	0	0	0	1	0	0	2
indirect yes/no	0	0	3	0	1	0	1	0	0	0	2	2	9
if-then	3	1	1	1	0	0	12	0	0	2	2	2	24
requests for repetition	14	2	1	9	18	2	3	8	6	3	10	2	78
other	4	2	2	0	2	1	2	1	4	2	1	2	23
direct open-ended (nonevent)	0	0	0	1	1	1	0	0	0	0	0	0	3
indirect open-ended (nonevent)	0	1	0	0	0	0	0	0	0	0	0	0	1
incomplete/inaudible	8	1	11	3	20	0	7	2	3	9	2	2	74

Table H2

Child Answer Type Frequencies by Interview

Answer Type	Interview												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
agreement	34	12	35	13	53	11	23	21	41	34	42	33	352
disagreement	32	2	43	6	50	12	18	14	7	9	12	15	220
partial agreement	0	0	0	0	1	0	1	0	0	1	2	0	5
relevant information	71	24	59	37	141	20	48	51	41	66	51	41	650
irrelevant information	6	4	5	11	11	0	1	7	8	12	1	6	72
refusal to answer	0	2	0	0	1	3	0	0	0	0	0	0	6
request for clarification	1	6	8	5	7	1	2	1	0	0	8	1	40
don't know	6	2	4	1	10	4	3	2	0	5	10	4	51
relevant question	4	1	1	1	0	0	0	0	0	0	1	4	12
irrelevant question	0	6	0	4	0	0	0	0	0	0	1	0	11
no response	32	8	15	12	39	2	6	15	11	20	14	3	177
other	2	3	0	1	8	0	2	2	0	3	2	2	25
agree + relevant	7	0	1	2	22	0	1	1	0	3	15	0	52
disagree + relevant	1	0	1	3	6	1	1	4	0	1	4	0	22
other combinations	0	3	1	1	0	0	0	0	0	0	1	1	7
incomplete/inaudible	0	2	0	2	9	1	0	1	0	3	0	0	18

Expectedness of Child Answer Type Frequencies by Interview

	Interview												
Expectedness	1	2	3	4	5	6	7	8	9	10	11	12	Total
Expected	123	25	129	44	226	39	73	78	67	89	108	75	1076
Unexpected	52	34	32	38	90	11	17	29	32	56	37	23	451
Other	2	3	9	1	8	0	2	2	0	3	2	2	25
Question	5	7	0	6	7	1	2	1	0	0	9	5	52
incomplete/inaudible	0	2	0	2	9	1	0	1	0	3	0	0	18

Table H4

Officer Response Type Frequencies by Interview

	Interview												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
Officer Response													
Related probe	81	14	50	29	92	20	16	44	27	26	35	21	455
Related Statement	17	19	12	19	25	10	17	9	9	12	26	13	188
New Probe	14	12	38	6	63	11	39	18	21	10	19	10	261
Unrelated Statement	1	1	2	1	1	2	1	0	0	4	0	4	14
Clarification of Initial Probe	12	9	17	6	16	1	9	4	7	16	7	5	109
Acknowledgement	35	5	35	23	103	8	15	25	33	63	58	52	455
other	0	0	0	0	1	0	0	0	0	0	1	0	2
incomplete/inaudible	2	1	4	0	1	0	1	1	0	3	2	0	15