

3



Assessing Comprehension in the Developing Language Stage

Developmental level: 24–60 months

Language level: Brown's stages III–V; Mean length of utterance 2.5–4.5

Production milestones: During this stage, children are acquiring the basic vocabulary and syntax of language. Vocabulary size is expanding rapidly. Morphological markers are beginning to be used in speech. A variety of sentence forms, such as questions and negatives, are beginning to contain appropriate syntactic marking. Toward the end of the stage, complex sentences begin to be used. Phonological simplification processes may interfere with intelligibility.

The developing language stage covers the period when typically developing children are between approximately 2 and 5 years of age. During this time, the child is acquiring language rapidly, producing and understanding an increasing number of words in more complex and elaborated sentences, and expressing a wider variety of meanings on topics increasingly remote from the immediate context in time and space. It has been estimated that children in this period learn six to eight new words a day. At the end of this stage, the child should understand simple sentence forms as well as some conjoined and complex sentence types (Table 3.1). As linguistic learning advances, the variety of discourse situations that can be sampled also expands to include not only dyadic conversation, but also pretend play, story telling, and extended descriptions and explanations.

SPECIAL ASSESSMENT CONSIDERATIONS FOR THE DEVELOPING LANGUAGE STAGE

Children at developmental levels corresponding to 24–60 months of age have only somewhat longer attention spans than their peers in the emerging language stage. They will still need help in the form of reinforcement to persist with assessment activities. Many clinicians use edible reinforcements to keep children focused during this stage. Unfortunately, however, if you need to do several procedures, the child may tire of eating Froot Loops (or whatever reinforcer you have chosen) before you have finished. Token reinforcement, such as checkmarks given for each response, which are traded in for a sticker or treat when 10 are accumulated, are often too abstract or too long-deferred for children in this stage. For most children, a careful mix of praise or social reinforcement and small tangible reinforcers (e.g., stickers; colored paper clips; inexpensive, small toys) will be necessary. A clinician might, for example, praise a child for every few responses made. (Praising for every

Table 3.1. Examples of sentence types used in the developing language period

Simple sentences —those that contain only one clause or main verb	
I like ice cream.	The girl is running.
He went fishing.	The animals frightened the children.
We helped the fire fighters with their hoses.	Two boys in my class watched the game on TV.
Conjoined sentences —those with two or more independent clauses joined by a conjunction (e.g., <i>and</i> , <i>but</i> , <i>so</i> , <i>or</i>)	
I can eat pizza and drink juice.	Malcolm likes apple pie, but Keri likes cherry.
We can go to the movies or rent a video.	She wants a new bike, so she babysits on weekends.
Complex sentences —those that contain one or more dependent clauses	
She wants to be a doctor.	Joy knows what Alex wants for his birthday.
They asked us to move out of their way.	Jamaal has the kind that I want.
I think I'll go swimming.	I wonder how to fix this.

response will become nonreinforcing; keep the reinforcement intermittent or sporadic.) It is important, by the way, to provide this praise whether or not the response is correct. It is important to reinforce responding itself to keep the child focused, rather than to encourage thinking of responses as right or wrong. Interspersed with praise, you might occasionally give the child a colored paper clip. The clips collected during the assessment can be strung together to make a "necklace" that the child may keep or give to his or her mother.

THE EARLY AND LATE SEGMENTS OF THE DEVELOPING LANGUAGE STAGE

For the purpose of assessing comprehension, this stage can be divided into two periods: what might be called the "early" segment of the developing language stage, and the "late" segment. The early segment would correspond in typical development to the period from about 2 to 3½ years, in productive development from MLUs of 2.0–3.5, Brown's stages II–III. This is the period of basic simple sentence development. The later phase would cover roughly from 3½ to 5 years in typical language acquisition, when MLUs are between 3.5 and 4.5, Brown's stages III–V. During this time, complex sentences typically begin to appear. When doing comprehension assessment with a child in the developing stage of productive language, you will probably want to start with the procedures for assessing comprehension in the early segment of this stage, such as Procedures 3.1–3.9. If the child performs accurately on these assessments, you can go on to evaluate comprehension skills of the later segment of this level, such as Procedures 3.10–3.13, regardless of the child's language production ability. Table 3.2 summarizes the early and late segments of this stage.

As the discussion of response modes in Chapter 1 indicates, some new options become available during this stage. In addition to behav-

Table 3.2. Early and late segments of comprehension assessment in the developing language period

Early	Late
Understanding locatives	Understanding preparatory or sincerity conditions for speech acts
Answering questions	Recognizing politeness
Understanding intent	Understanding requests for clarification
Inferring and continuing topics	
Understanding two- and three-word instructions	
Understanding word order	

ioral compliance, to which we are restricted in the emerging language stage, children can also be asked to answer questions, point to pictures, and manipulate objects. In the later segment of the developing language stage, even some best-fit, or judgment, tasks can be used. However, you need to be careful. Children are still inconsistent about responding to questions until after 3 years of age. You will probably need to restrict using question/answer procedures to the later segment of this developmental period. Responses on picture-pointing tasks are fairly unreliable until the fourth year (see the *Peabody Picture Vocabulary Test-Revised [PPVT]* reliability data [Dunn & Dunn, 1981]), so again we will probably not want to rely on these very much until the later segment of the period. Furthermore, attention span limits the depth of testing on object manipulation tasks in the third year of life. As a result, you will need to be careful to elicit several responses for each item being tested with object manipulation to be sure the response is stable and not a matter of chance. You will also have to intersperse the comprehension testing with other activities to maintain the child's attention. For example, you might administer one comprehension assessment procedure (e.g., Procedure 3.7) and then you might give the child farm toys to play with while you observe vocal behavior during play as part of production assessment. After 5 minutes, you might begin Procedure 3.8, asking conversational questions as the child continues to play with the farm toys.

As noted previously, comprehension strategies continue to play a role during this period. Again, contrasting performance in contextualized and decontextualized administration of the same item will help you to see strategies in operation. If a child is attempting to process the three-term instructions used in these procedures (e.g., "Show me: 'The mommy feeds the baby'") by employing a child-as-agent strategy and performing actions on objects him- or herself consistently (i.e., child feeds the baby doll), this child is probably still operating in the emerging language stage of comprehension and is not ready for the procedures in this chapter.

Although children in the early segment of the developing language stage can, unlike children in the emerging language stage, process all three terms in an agent-action-object sequence (e.g., "The boy pushes the car"), they are still limited in their comprehension of sentences with inanimate, and therefore improbable, agents. Given such a sentence to act out with toys, such as "Show me: 'The boat hits the girl,'" the child in the developing stage will not be able to use the order of the words in the sentence to assign agent (first noun = agent) and object (last noun = object) roles, but will rely on a "probable events" response strategy by making the animate noun the agent, and demonstrating, "The girl hits the boat." Similarly, in sentences with both animate agents and objects (e.g., "The car pushes the truck"), where probable events response strategies do not help, children in this early period are likely to perform at chance levels (i.e., they will be correct half of the time and incorrect half of the time, as if they were guessing) (Chapman & Miller, 1975). Procedure 3.7 tests these reversible types of sentences specifically to evaluate children's ability to use word order to assign semantic relations in sentences. In using Procedure 3.3, though, which tests a more basic level of comprehension involving simply the ability to comprehend all three terms in an agent-action-object sequence, it is important to remember to

use animate nouns as agents of action in the test sentences (e.g., "Make the baby pat the truck"). Objects of action should be inanimate. These semantically irreversible sentences are the earliest three-word instructions children would be expected to comprehend during this stage, and comprehension of three terms in a sequence is all you are trying to assess in Procedure 3.3. If the child performs adequately on these earlier-acquired forms, testing can proceed to the more complex reversible sentences in Procedure 3.7.

The early segment of the developing language stage is also a time of important changes in discourse skill. Children begin to understand their conversational obligation to respond to speech with speech, or to speak when spoken to. Although this skill is emerging in the developing language phase, children are not completely reliable about fulfilling their conversational obligations. Reliability of responses both to statements and questions increases throughout the third year. Both are more reliable after age 3 (Owens, 1992). Children are also learning to maintain a conversational topic. They are better, though, at maintaining their own topics than those introduced by others. Even 4-year-olds have trouble continuing a topic for more than a few turns, and repetition is often used as a strategy for topic maintenance by preschoolers (Brinton & Fujiki, 1989). Assessment of discourse comprehension in the developing language stage involves monitoring the development of these skills by assessing their presence in unstructured conversation. For children with disorders that primarily affect production (e.g., cerebral palsy), you could expect that discourse-level skills would be in advance of syntactic level. Even nonverbal or minimally verbal children should be able to demonstrate their understanding of these rules using vocal or gestural means if their difficulties are limited to the productive modality (Paul & Shiffer, 1991). Children who have problems in both lexical/syntactic comprehension and production will be more likely to have difficulties in the development of these discourse-level abilities.

Although the knowledge of their conversational obligation to answer questions develops early, children learn gradually what specific information is requested by particular question words. When they have not yet learned the meaning of a question word, children in the developing language stage will often use the response strategy of "supplying the missing information." However, the question words that the child fails to comprehend will decrease through this period in a predictable order. Comprehension of prepositions develops in a similar fashion. Both of these sequences of development are probably related to the conceptual difficulty of the words involved. The order of acquisition of both *wh*-words and locative prepositions appears to reflect the complexity of the concept expressed (e.g., *what* is understood before *when*; *in* is understood before *beside*).

As development proceeds in the preschool years, children are able to make increasingly greater use of linguistic information in understanding, learning, and thinking. As a result, they rely less on context and response strategies than they did previously, although these forces will still be operating to a limited extent. For example, during this period children begin to understand the meaning of the order in which words appear in a sentence and begin to be able to differentiate between commands such as:

"Make the boy push the girl"

and

"Make the girl push the boy."

However, sentence types, such as passives, that are exceptions to the normal "first noun-verb-second noun = agent-action-object" formula, can cause problems. Children in the later segment of the developing language stage will often misinterpret such sentences to mean "first noun = agent, last noun = object." As a result, they may misunderstand a passive sentence such as:

"The baby is fed by the mommy"

to mean

"Baby feeds Mommy,"

even though this meaning is contrary to probable events. Such a strategy, although still leading to some misinterpretation, is evidence that children are focusing more sharply on linguistic, as opposed to contextual and prior knowledge, cues during this phase.

Many children in the later segment of the developing language stage will be able to respond to standardized language comprehension testing, using instruments like those listed in Table 1.2. At this level, the purpose of informal assessment includes a more in-depth look at structures the child appeared to fail on the standardized measures, the ability to contrast performance on the decontextualized test with performance in a more contextualized administration, and the ability to examine a broader range of structures than may be addressed by the test. The procedures presented in this chapter can be adapted for testing a variety of forms. The only limits are the developmental data available and your imagination.

Although the most rapid syntactic development takes place during the early developing language period, the phase at the end of this stage is a time of very rapid and dramatic increases in discourse-level skills. In terms of discourse comprehension, major acquisitions include the understanding of preparatory and sincerity conditions for speech acts, increasing sophistication in processing and responding to requests for clarification, and increasing presuppositional and inferential abilities (Chapman, 1981). These abilities are examined in Procedures 3.10–3.13.

PREPARATION FOR ASSESSMENT

In order to proceed with testing at the developing language level, you will need to have done the following:

1. Obtain a list of object names and action words for which the child has demonstrated comprehension by pretesting the words to be used in the assessment, using procedures like those discussed in Chapter 2. It is good practice to document comprehension for every individual word you plan to use in testing multiword stimuli.
2. Collect the objects required to represent the words in the sentences you plan to use. Objects should be of equal size to avoid size as a possible influence in determining agent (e.g., a "large objects act on smaller objects" strategy).

3. Prepare a score sheet to include the linguistic stimuli you are planning to use and a space for recording what the child actually did in response, as well as whether the response was correct or not. (Examples are provided for several procedures in this chapter.) These data will allow you to determine the response strategies the child is using to solve the processing problems posed by the sentences.
 4. Select a range of reinforcers, from social to tangible, to maintain the child's attention. Change reinforcers often. Try making "deals" with children who are reluctant to respond. Tell them they will get a "prize" (i.e., a small toy or treat) every 5 or 10 responses. Let them count the responses on their own fingers to make the counting more concrete.
 5. Prepare alternate procedures to introduce as the child's attention shifts. When the child tires of the comprehension task, go on to another aspect of the assessment, such as collecting a speech or behavior sample, or evaluating oral-motor skill in an eating activity (see Paul [1995] for detailed procedures for assessing oral-motor and feeding skills). Return later to finish the comprehension task when the child is refreshed. Alternating tasks is the most effective way to maintain motivation.
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PROCEDURE
3.1



Understanding Illocutionary Intent in Indirect Requests in Discourse

DEVELOPMENTAL LEVEL	24–36 months
LINGUISTIC LEVEL	Discourse
LINGUISTIC STIMULI	Requests containing familiar vocabulary in complex syntactic contexts
RESPONSE TYPE	Natural—behavioral compliance
MATERIALS	<ul style="list-style-type: none">• Age-appropriate toys for which the child has already demonstrated comprehension in Procedure 2.4
PROCEDURE	<ol style="list-style-type: none">1. Choose objects and actions for which the child has already demonstrated comprehension in Procedure 2.4.2. As the child plays with toys, periodically embed probable action-object instructions in polite question requests such as, “Would you please pat the doll for me?”, “Could you push this car for me?”, and “Would you mind tickling this cow?”3. Record the child’s responses on a score sheet like the one on page 122.
PASSING RESPONSE	The child complies with several complex probable instructions.

PROCEDURE
3.2



Providing Contingent Responses

DEVELOPMENTAL LEVEL	24–36 months
LINGUISTIC LEVEL	Discourse
LINGUISTIC STIMULI	Natural conversation
RESPONSE TYPE	Natural—conversational replies
MATERIALS	<ul style="list-style-type: none">• Age-appropriate toys• Video camera (optional)
PROCEDURE	<ol style="list-style-type: none">1. Videotape or observe a 10-minute play interaction between parents and child.2. For each parent utterance, code the following child response on a score sheet like the one on pages 123–124 as <i>contingent</i> (relevant to the topic of the parent’s remark), <i>noncontingent</i> (irrelevant responses and no responses), or <i>imitative</i> (responses that repeat all or part of the parent’s utterance). It is not necessary to transcribe the utterances if only contingent responses are being scored. Simply place a tally mark () for each adult utterance that attempts to elicit a response from the child.3. Compute the percentage of contingent and imitative responses and compare to the Bloom, Rocissano, and Hood (1976) data provided on the score sheet on page 124. <p>Bloom et al. reported that topic continuation increases from 39% to 98% from 21 to 46 months of age. Continuations that include new information (i.e., that are not imitations) increase from 21% to 46% in this period (see the table on p. 124 for Bloom et al. data). Based on the rapid change in children’s contingent speech during this developmental period, this procedure may be a particularly sensitive discourse development measure.</p>
PASSING RESPONSE	<p>Children who show levels of contingent responses similar to those in the Bloom et al. data, even if their speech is delayed, are demonstrating positive discourse development. This suggests that their chances for eventually developing good communicative ability are good. Children who have production delays and demonstrate reduced topic continuation skills may be at greater risk for long-term problems.</p>

PROCEDURE
3.3



Comprehension of Two- and Three-Word Instructions with Toys as Agents

DEVELOPMENTAL LEVEL	24–48 months										
LINGUISTIC LEVEL	Syntactic										
LINGUISTIC STIMULI	Agent-action and agent-action-object relations with an agent other than the child specified										
RESPONSE TYPE	Contrived—object manipulation										
MATERIALS	<ul style="list-style-type: none">• Toys or objects brought by the parent whose names the child says or may know• Other common objects, such as a shoe, diaper, bottle, ball, truck, baby doll, puppets, and toy animals (This should include items that can serve as agents of actions.)										
PROCEDURE	<ol style="list-style-type: none">1. Plan to use vocabulary from Procedures 2.3 and 2.4 for which the child has demonstrated comprehension.2. Familiarize the child with names for the new “agent” toys, and check the child’s knowledge of these names.3. Have several objects available from which the child must choose.4. Ask the child to act out the instruction such as: <table><tr><td>horse eat</td><td>doll kiss comb</td></tr><tr><td>cow drink</td><td>horse eat spoon</td></tr><tr><td>doll comb</td><td>doll kick cup</td></tr><tr><td>horse run</td><td>cow throw comb</td></tr><tr><td>doll eat</td><td>horse hit cup</td></tr></table><p>Instructions should be presented in a simple carrier phrase, such as “Make the horse eat,” or “Show me: ‘The doll kisses the comb.’” Three-word instructions should <i>not</i> be semantically reversible.</p>5. Record responses on a score sheet like the one on page 125.	horse eat	doll kiss comb	cow drink	horse eat spoon	doll comb	doll kick cup	horse run	cow throw comb	doll eat	horse hit cup
horse eat	doll kiss comb										
cow drink	horse eat spoon										
doll comb	doll kick cup										
horse run	cow throw comb										
doll eat	horse hit cup										
PASSING RESPONSE	The child chooses the correct agent from the array and uses it to perform the mentioned action. For three-word instructions, the correct agent and object must be chosen and the appropriate action demonstrated on the object. Responses should be repeated over several trials.										

RESPONSE STRATEGIES

- “Child-as-agent”(i.e.,child acts on objects him- or herself in the way mentioned)
- “Do what you usually do” (i.e., conventional use of objects)
- “Probable event”

The latter two strategies listed above may be identified only at the end of testing when the pattern of responses also is identified.

PROCEDURAL NOTE

The data collected from this procedure can be added to those gathered in Procedures 2.1–2.6 to get a cumulative picture of developing sentence comprehension. If the child passes most of the irreversible three-word items tested here, assessment can go on with Procedure 3.7 to examine more complex word-order comprehension tasks. If the child does not pass any three-word items, it is unlikely that he or she will be successful with the word-order items in Procedure 3.7. The clinician should not administer Procedure 3.7 to this child.

PROCEDURE
3.4



Comprehension of Locatives: Search Task

DEVELOPMENTAL LEVEL	30–48 months
LINGUISTIC LEVEL	Lexical
LINGUISTIC STIMULI	Prepositions <i>in, on, under, behind, in front of, and beside</i>
RESPONSE TYPE	Natural—behavioral compliance
MATERIALS	<ul style="list-style-type: none">• Toy mailbox or egg carton for reference object• Six small boxes and six raisins, peanuts, or small candies• A piece of cardboard for use as a screen
PROCEDURE	<ol style="list-style-type: none">1. Place the six small boxes in the six locative positions (indicated by the prepositions above) relative to the toy mailbox.2. Introduce the toy mailbox and the screen to the child.3. Give the child the following instructions: "Here is a raisin (or peanut or candy). I'm going to hide it and I'll tell you where to find it."4. Put up the screen between the child and the test items.5. Hide one raisin (or peanut or candy) under the small box <i>in</i> the mailbox.6. Remove the screen.7. Tell the child, "The candy is in the mailbox."8. Record the child's response on a score sheet like the one on page 126. Normative data from Hodun (1975) appear there.9. Put the screen up again and repeat the procedure using the next stimulus locative. The stimulus locatives must be presented in the following order: <i>in, on, under, behind, in front of, beside</i>. Because the first three locatives are the easiest, they are presented first to ensure some success. Alter the stimulus sentence as appropriate for each locative preposition.
PASSING RESPONSE	The child finds the prize (raisin, peanut, or candy) under the appropriate box. Response is repeated on several trials with different target objects.
RESPONSE STRATEGY	<ul style="list-style-type: none">• "Probable location" (i.e., child searches for objects where they are usually found)
DEVELOPMENTAL NOTE	Although <i>in, on, and under</i> are understood by 50%–85% of children at 30 months of age, <i>in front of</i> and <i>beside</i> are not comprehended by most children until 42 months (Hodun, 1975). Hodun (1975) reports that this search task is easier for children than the placement task (see Procedure 3.5).

PROCEDURE
3.5



Comprehension of Locatives: Placement Task

DEVELOPMENTAL LEVEL	30–48 months
LINGUISTIC LEVEL	Lexical
LINGUISTIC STIMULI	Prepositions <i>in, on, under, behind, in front of, and beside</i>
RESPONSE TYPE	Natural—behavioral compliance
MATERIALS	<ul style="list-style-type: none">• Two toys that can serve as agents (e.g., stuffed animals)• Small toys, candies, or raisins• A small bag• Large fronted reference object(s) with suitable hiding places for all prepositions listed, such as mailbox, stove, desk, money box, truck, or jeep
PROCEDURE	<ol style="list-style-type: none">1. Give the child instructions similar to the following:<p>“I would like you to play a game with me. Here, meet my two friends, Pinky (toy hippo) and Red (toy dog). Let’s play with my friends and the toys over here (next to reference objects). Do you know what these are called? That’s right, this is a mailbox, a stove, a desk, a money box, a truck, and a jeep. (The child’s own names for the objects are used throughout the procedure wherever these differ from the ones originally assigned.) I’ll show you how to play this game with my friends. See Pinky? He wants to go in the truck. Put Pinky in the truck. Thank you. That’s where he wanted to go. Let’s play again. Here’s Pinky...”</p><p>Include in the instructions improbable locations to differentiate response strategies from comprehension. Test <i>in, on,</i> and <i>under</i> first, giving at least three test items for each preposition. If the child is consistently successful, contrive to test each of the other terms, also giving three trials for each. If the child is unsuccessful on two of three of the first three prepositions tested, discontinue testing.</p>2. Record responses on a score sheet like the one on page 126. Use the scoring key on the score sheet to simplify the process. If the child’s response is incorrect, note the number of the preposition where the child did place the object. For example, if the child was told to place the object <i>beside</i> the mailbox and he or she placed it <i>in</i> the mailbox, record X1 in the box for that trial. These notes will allow the clinician to review the score sheet for patterns of response strategies later. Normative data from Hodun (1975) appear on the score sheet on page 126.
PASSING RESPONSE	The child consistently places objects correctly according to the preposition named in the instruction.
RESPONSE STRATEGY	<ul style="list-style-type: none">• “Probable location” (i.e., child puts objects in containers and on surfaces)

PROCEDURE
3.6



Comprehension of Locatives: Body Placement Task

DEVELOPMENTAL LEVEL	30–48 months
LINGUISTIC LEVEL	Lexical
LINGUISTIC STIMULI	Prepositions <i>in, on, under, behind, in front of, and beside</i>
RESPONSE TYPE	Natural—behavioral compliance
MATERIALS	<ul style="list-style-type: none">• A large wooden or cardboard box with the cover attached to one side to mark the front (reference object)
PROCEDURE	<ol style="list-style-type: none">1. Place the box about 6 feet from the child with its front facing him or her.2. Tell the child, "Let's play a game. I'll tell you where to hide. Go in the box."3. Record the response on a score sheet like the one on page 126.4. Repeat the procedure using the next locative. The stimulus locatives must be provided in the following order: <i>in, on, under, behind, in front of, beside</i>.
PASSING RESPONSE	The child moves to the appropriate position. Response is repeated in several trials.
RESPONSE STRATEGY	<ul style="list-style-type: none">• "Probable location" (i.e., child searches for objects where they are usually found)

PROCEDURE
3.7



Word Order Comprehension

DEVELOPMENTAL LEVEL	30–60 months
LINGUISTIC LEVEL	Syntactic
LINGUISTIC STIMULI	Subject-verb (S-V), verb-object (V-O), subject-prepositional phrase (S-PP), subject-verb-object (S-V-O) reversible sentences, subject-verb-prepositional phrase (S-V-PP) reversible sentences, and verb-object-prepositional phrase (V-O-PP) reversible sentences (Stimulus sentences for this procedure are listed on p. 54.)
RESPONSE TYPE	Pointing to pictures
MATERIALS	<ul style="list-style-type: none">• Twenty-nine stimulus plates (see pp. 56–113) of four line drawings each (The first 5, plates A–E, pretest the 20 vocabulary items used in this procedure; the remaining 24 plates are testing stimuli, with one test sentence for each plate.)
PROCEDURE	<p>The clinician may either sit across from or next to the child. What is important is that the child can easily see all four line drawings on the plates and the clinician can see the child's response and record it. The child's comfort is an important consideration. As the clinician administers the stimulus items, he or she must be sure not to cue the child by looking at the correct line drawing. All stimulus items should be read in a consistent tone; no words should be stressed.</p> <p>Pretest</p> <ol style="list-style-type: none">1. To ensure that the child knows the vocabulary items in this test, using plates A–E, ask the child to point to the stimulus words represented by each picture.2. For each plate, name the stimulus words in the order specified on the practice plate to ensure that each picture location is sampled equally.3. Record the picture to which the child points in response to each item as 1–4 on a score sheet like the one on page 52. The child must respond correctly to all the words in this portion of the assessment in order to proceed with testing.4. After the child has demonstrated knowledge of each vocabulary item, proceed to the test sentences.

Test

1. For each plate, read the stimulus item and ask the child to point to the picture that matches the item. You may give the child a second chance to respond if no response is given to the first presentation of the stimulus sentence.
2. Record the child's responses as 1–4 on a score sheet like the one on page 52.
3. Interpret the data recorded on the score sheet by using the interpretation form on page 53. Each recorded response, whether it is correct or incorrect, tells you something about the child's comprehension strategies relative to understanding word order.

Data Analysis

The score sheet on page 52 and the interpretation form on page 53 are intended to be used together for data analysis. As indicated, the first column of the interpretation form simply lists the plates in order by number. The second column provides the correct answer for each plate. For example, the correct picture on Plate 13 illustrates:

"Mommy's kissing Daddy."

The third column identifies the plate representing the reversed version of the sentence. Consistently reversed responses indicate that the child interprets the utterance in reversed order from that mentioned in the stimulus sentence. For the example above, the reversed response is:

"Daddy's kissing Mommy."

The fourth column identifies the picture representing the vocabulary items in the stimulus sentence unrelated to each other. Children preferring this interpretation understand the words presented but as unrelated items or a list, rather than representing relational meaning. For the example above, the child might choose pictures illustrating Daddy by himself, Mommy by herself, or the boy and girl kissing.

The fifth column identifies the picture representing a major constituent substitution, such as the subject or verb of the sentence. Consistent choices of this type suggest a failure to remember the major constituents of the stimulus sentence. Each of the incorrect, or foil, pictures has been designed to identify alternative approaches children may use prior to understanding word order as a cue to sentence meaning. For example, children may understand sentences as the same, regardless of the word order, selecting both correct and reversed pictures equally often. They may understand the stimulus sentence as a list of independent words, selecting the independent foil. Or, finally, they may fail to remember all of the vocabulary items, selecting the substituted option. For the example stimulus item above, the child may choose the picture that shows Mommy pushing Daddy, substituting *pushing* for *kissing*.

Note that all reversible sentences are probable and the vocabulary demands are minimal for this procedure.

PASSING RESPONSE

The child responds correctly to the majority of items in each category (S-V, V-O, S-PP, S-V-O reversible sentences, S-V-PP reversible sentences, and V-O-PP reversible sentences).

FOR USE WITH
PROCEDURE:
3.7



SCORE SHEET

Word Order Comprehension

Instructions: For each stimulus item, record the number of the picture (1–4) to which the child points. Complete the pretest before proceeding with the test items.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Pretest

A. Daddy _____
Girl _____
Boy _____
Mommy _____

B. Crawling _____
Hugging _____
Kissing _____
Climbing _____

C. Pouring _____
Pushing _____
Touching _____
Dropping _____

D. In _____
Blanket _____
Cup _____
On _____

E. Pitcher _____
Water _____
Doll _____
Truck _____

Test

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____

FOR USE WITH
PROCEDURE:
3.7



INTERPRETATION FORM

Word Order Comprehension

Instructions: This form is intended to be used with the score sheet for Procedure 3.7 (see p. 52). For each plate entry below, circle the child's response number. Total the columns as indicated. Upon completion, proceed with data analysis as described in Procedure 3.7.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



	Plate	Correct	Reversed	Unrelated	Substituted
S-V sentences	1	1	2	3	4
	2	4	1	2	3
	3	3	4	1	2
	4	2	3	4	1
Total S-V (1-4)					
V-O sentences	5	2	1	3	4
	6	4	3	1	2
	7	3	4	2	1
	8	1	2	4	3
Total V-O (5-8)					
S-PP sentences	9	2	4	1	3
	10	3	2	4	1
	11	1	3	2	4
	12	4	1	3	2
Total S-PP (9-12)					
Total two-element sentences (1-12)					
S-V-O sentences	13	4	2	3	1
	14	1	4	2	3
	15	3	1	4	2
	16	2	3	1	4
Total S-V-O (13-16)					
S-V-PP sentences	17	2	4	3	1
	18	4	2	1	3
	19	3	1	2	4
	20	1	3	4	2
Total S-V-PP (17-20)					
V-O-PP sentences	21	3	2	1	4
	22	2	1	4	3
	23	1	4	3	2
	24	4	3	2	1
Total V-O-PP (21-24)					
Total three-element sentences (13-24)					
Grand total (1-24)					

FOR USE WITH
PROCEDURE:
3.7



STIMULUS ITEMS

Word Order Comprehension

Pretest

A. Daddy
 Girl
 Boy
 Mommy

B. Crawling
 Hugging
 Kissing
 Climbing

C. Pouring
 Pushing
 Touching
 Dropping

D. In
 Blanket
 Cup
 On

E. Pitcher
 Water
 Doll
 Truck

Test

Subject-Verb (S-V)

1. Mommy's kissing.
2. Daddy's kissing.
3. Daddy's hugging.
4. Mommy's hugging.

Verb-Object (V-O)

5. Pushing the girl.
6. Pushing the boy.
7. Touching the boy.
8. Touching the girl.

Subject-Prepositional Phrase (S-PP)

9. Doll on blanket.
10. Blanket on doll.
11. Cup in water.
12. Water in cup.

Subject-Verb-Object (S-V-O)

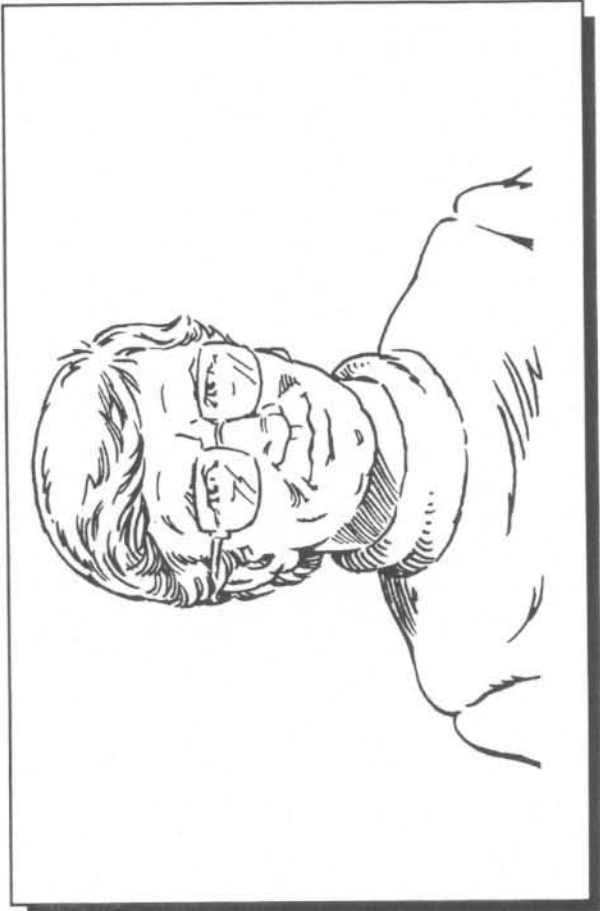
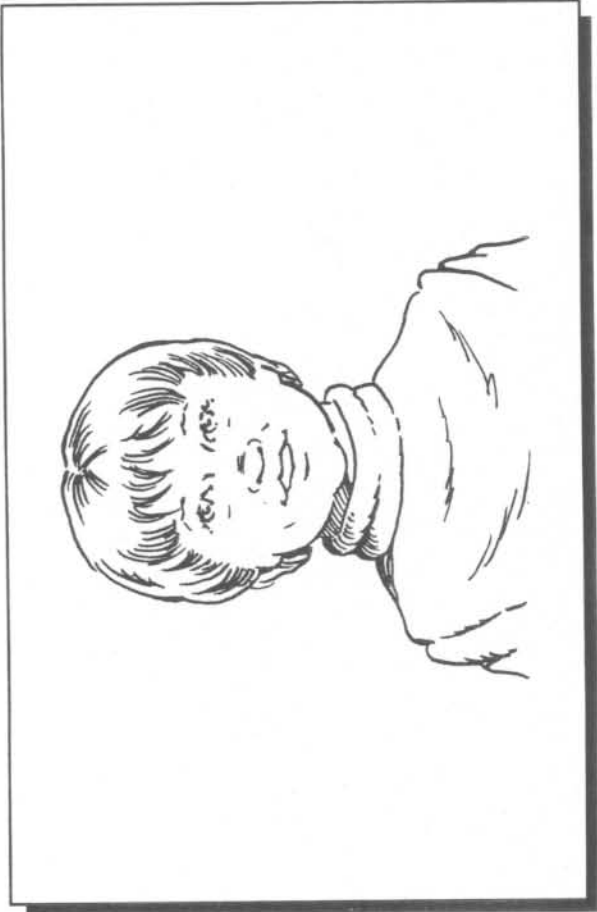
13. Daddy's kissing Mommy.
14. Mommy's kissing Daddy.
15. Mommy's hugging Daddy.
16. Daddy's hugging Mommy.

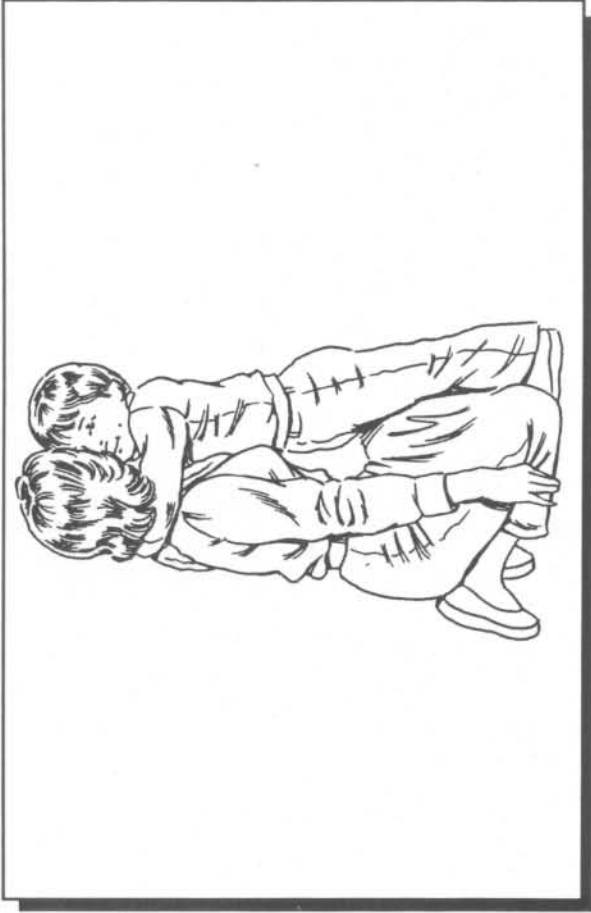
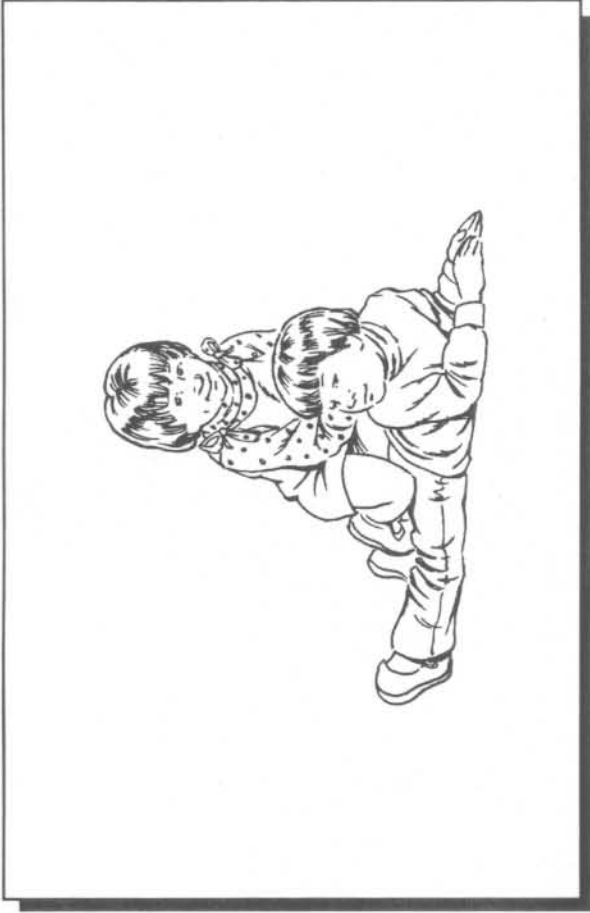
Subject-Verb-Prepositional Phrase (S-V-PP)

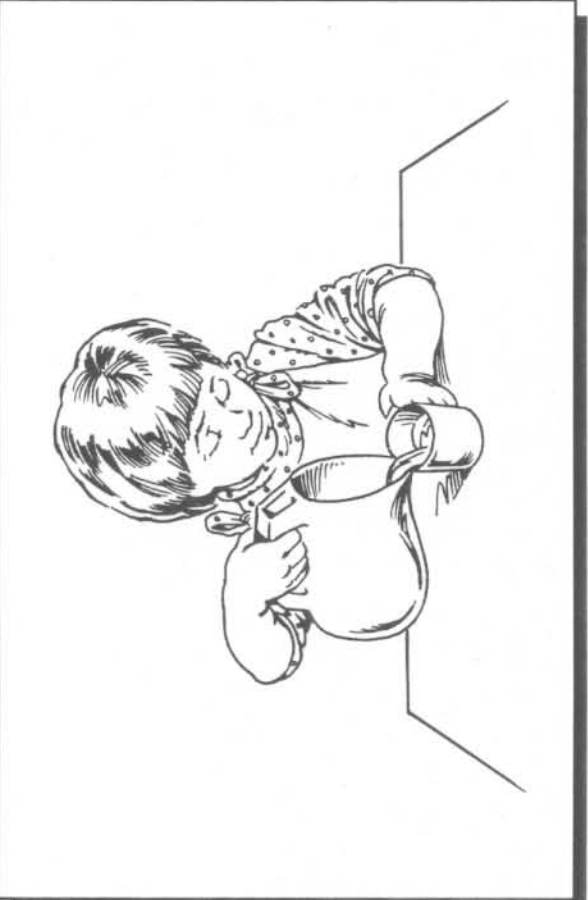
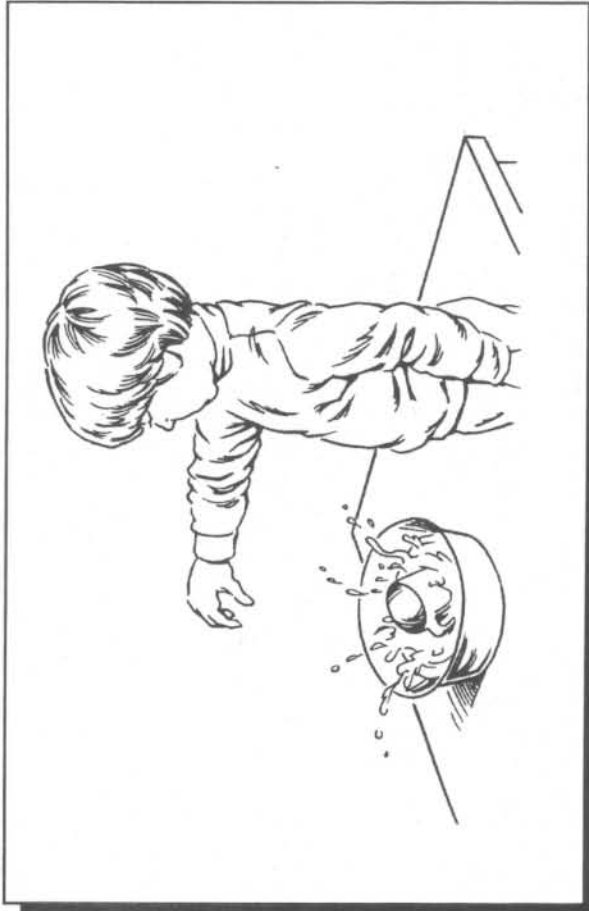
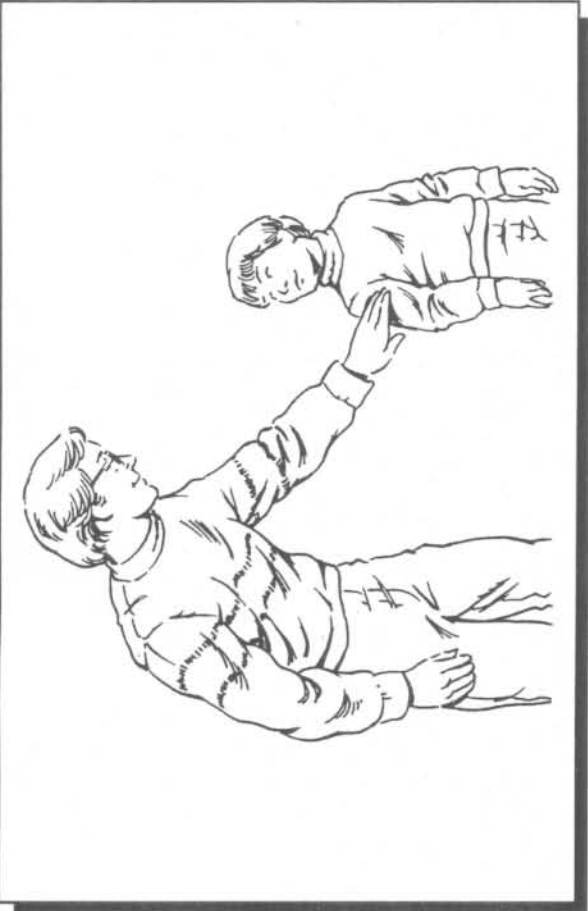
17. The boy climbs on Daddy.
18. Daddy climbs on the boy.
19. The girl crawls on Mommy.
20. Mommy crawls on the girl.

Verb-Object-Prepositional Phrase (V-O-PP)

21. Touching the water in the cup.
22. Touching the cup in the water.
23. Hugging the doll on the blanket.
24. Hugging the blanket on the doll.



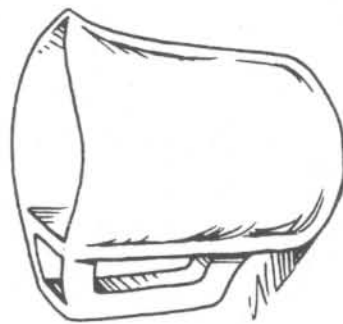
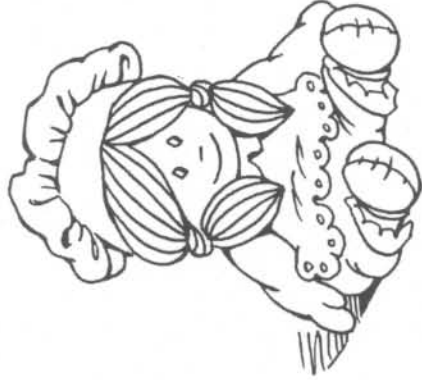
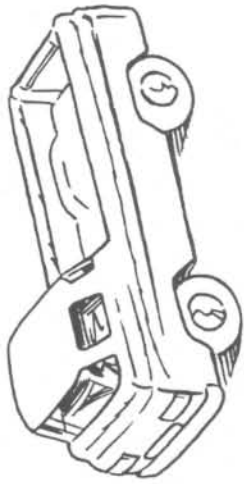




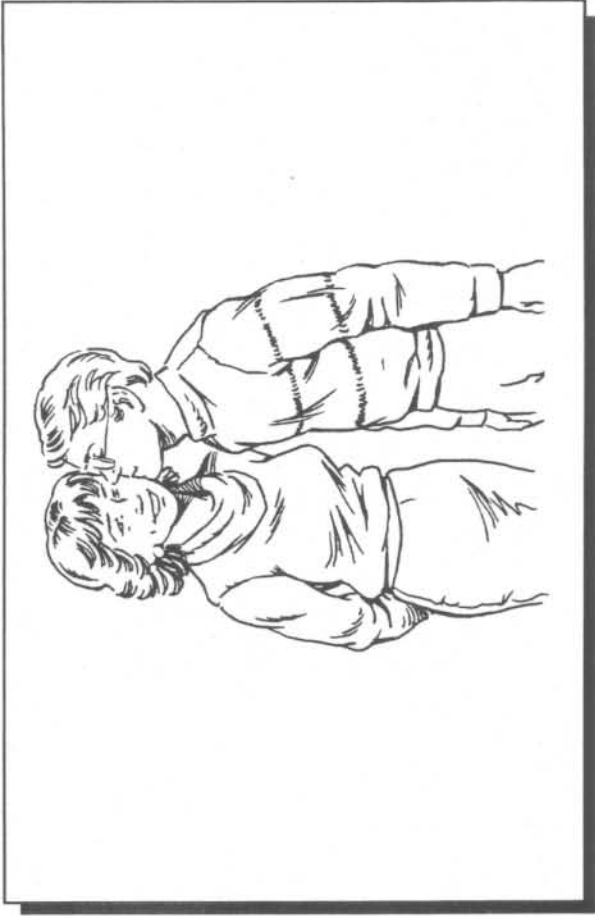
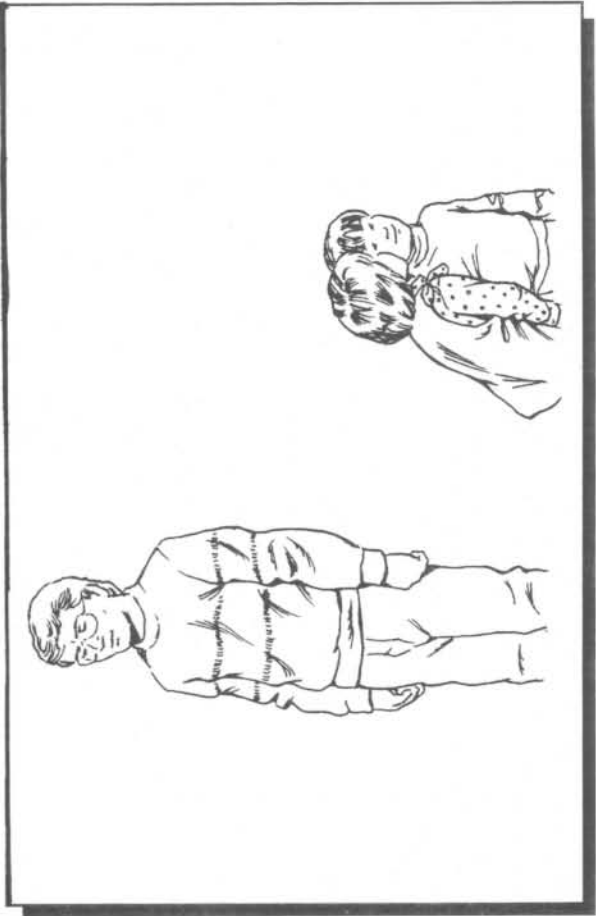
In/Blanket/Cup/On



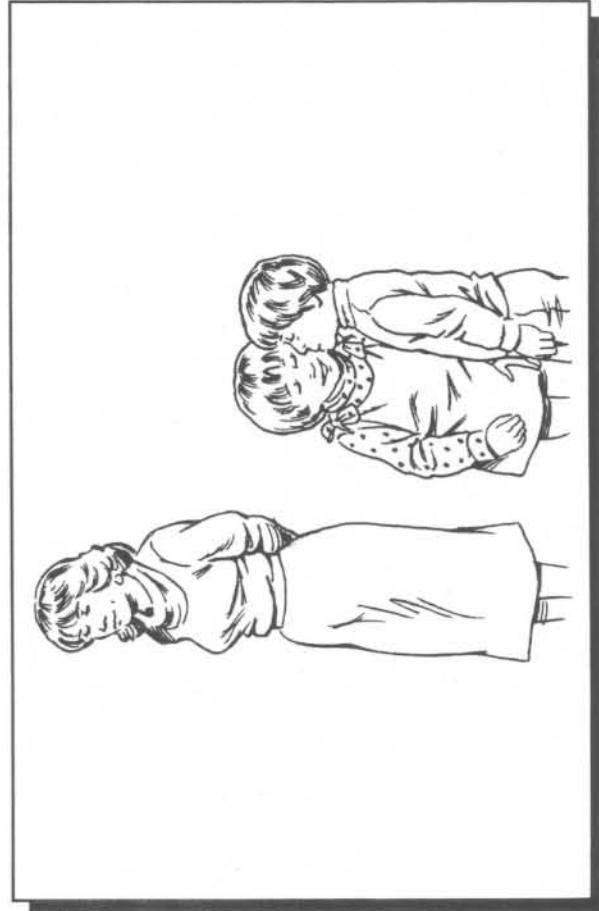
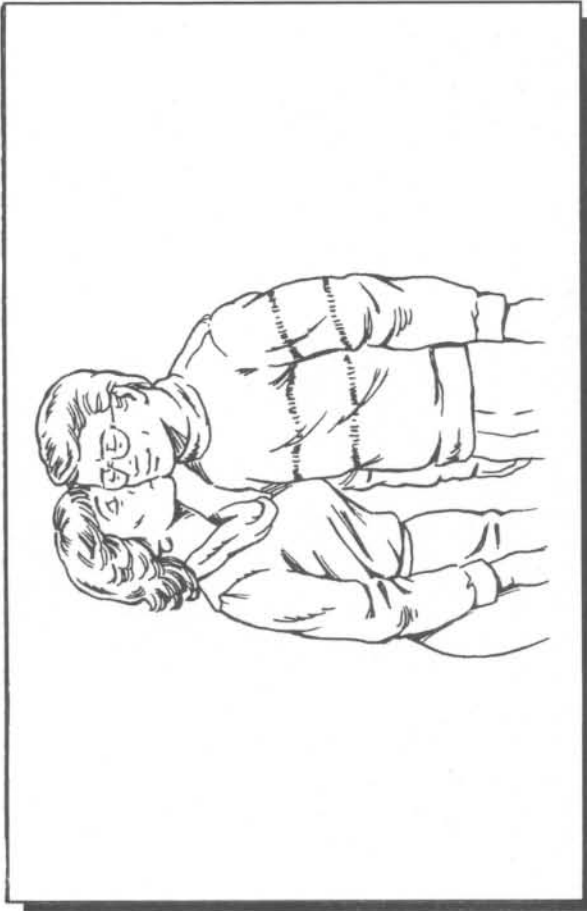
Pitcher/Water/Doll/Truck



Mommy's kissing.



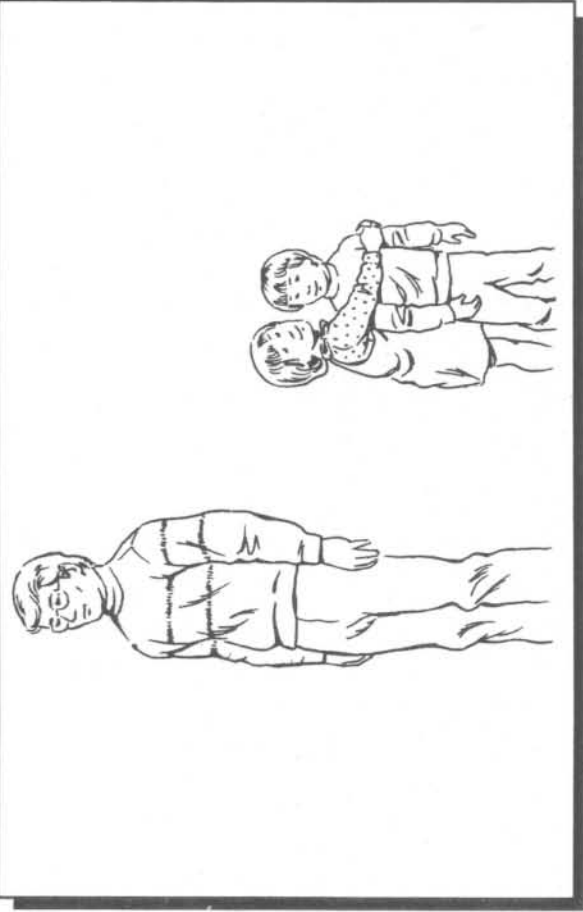
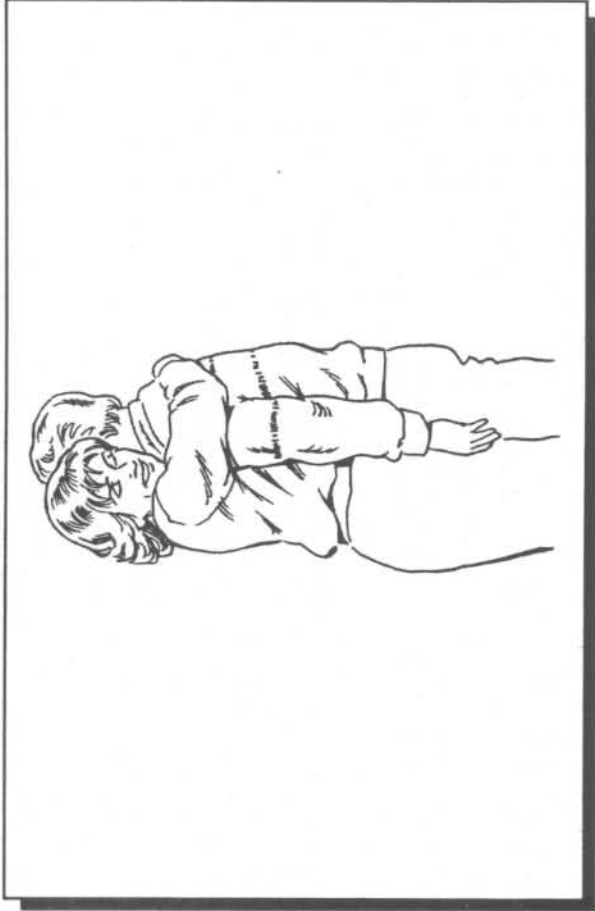
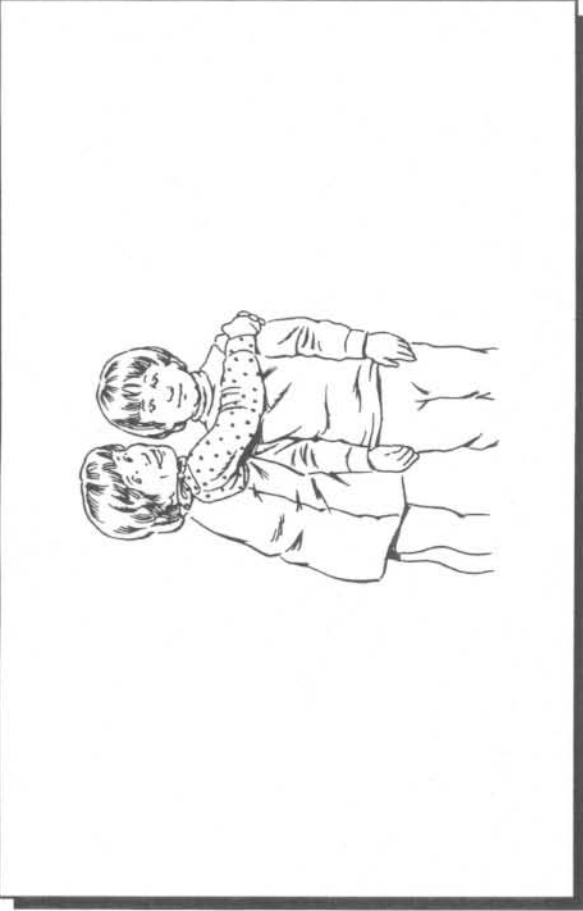
Daddy's kissing.



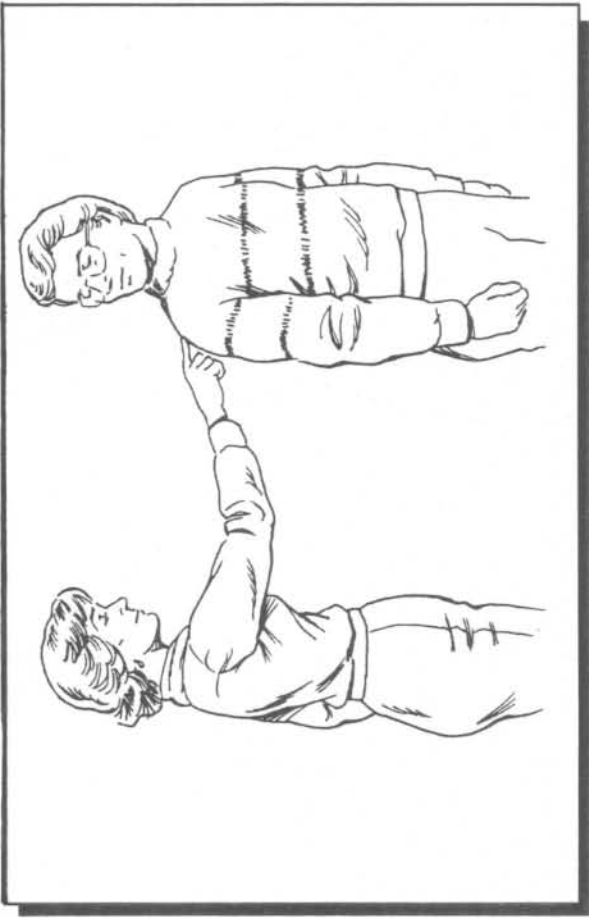
Daddy's hugging.

70

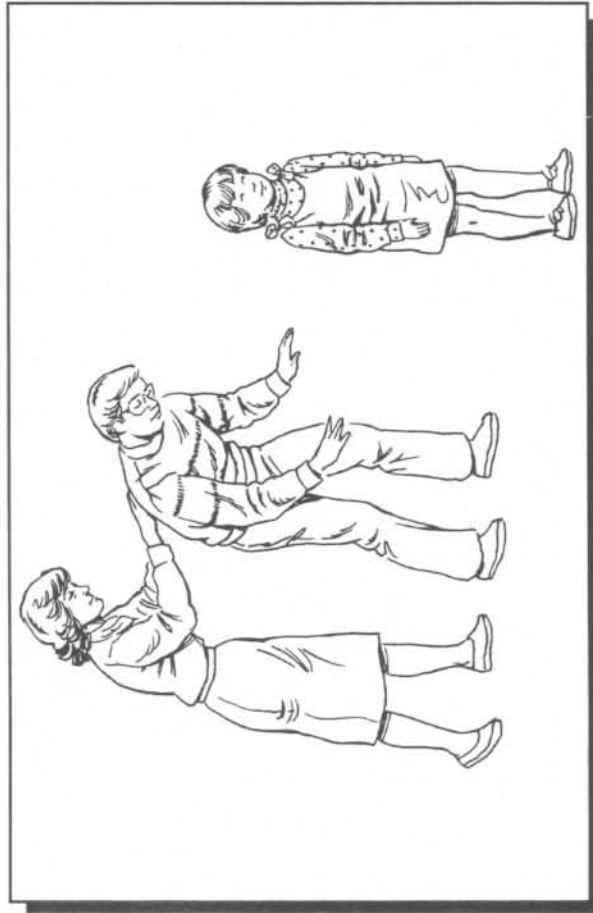
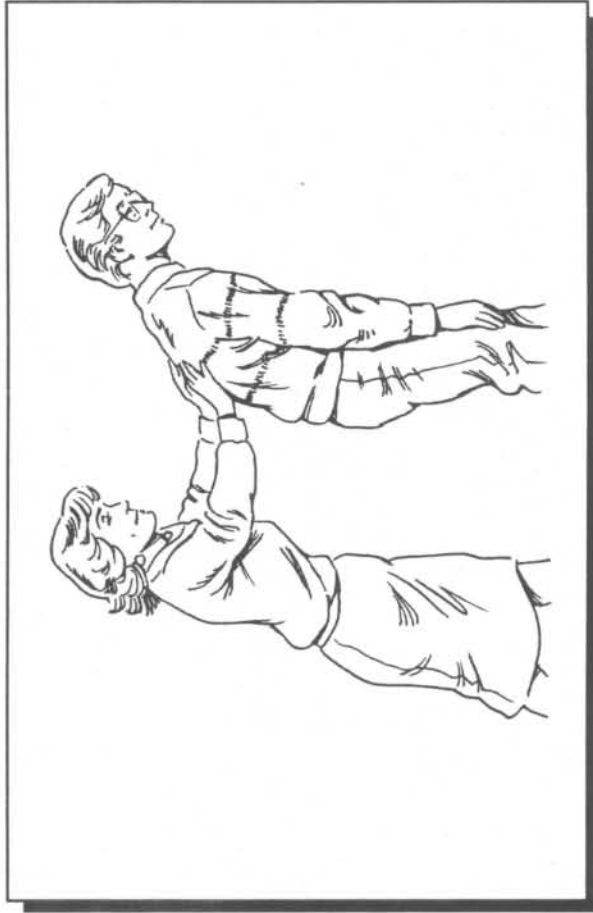
Daddy's hugging.



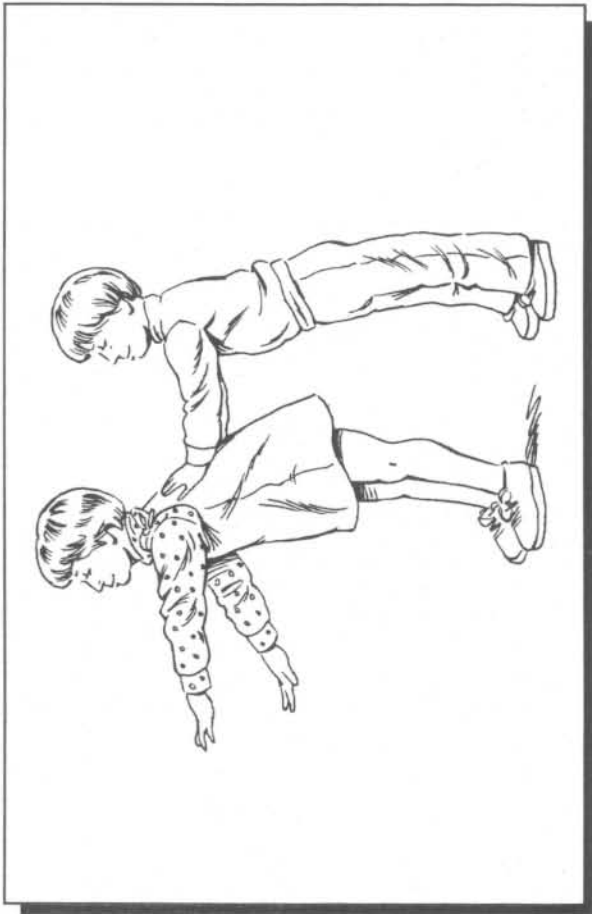
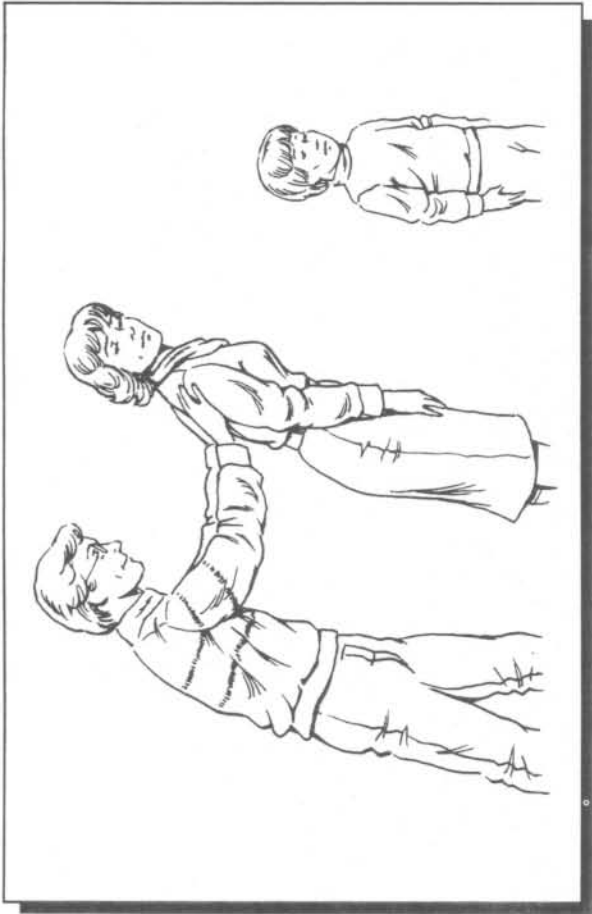
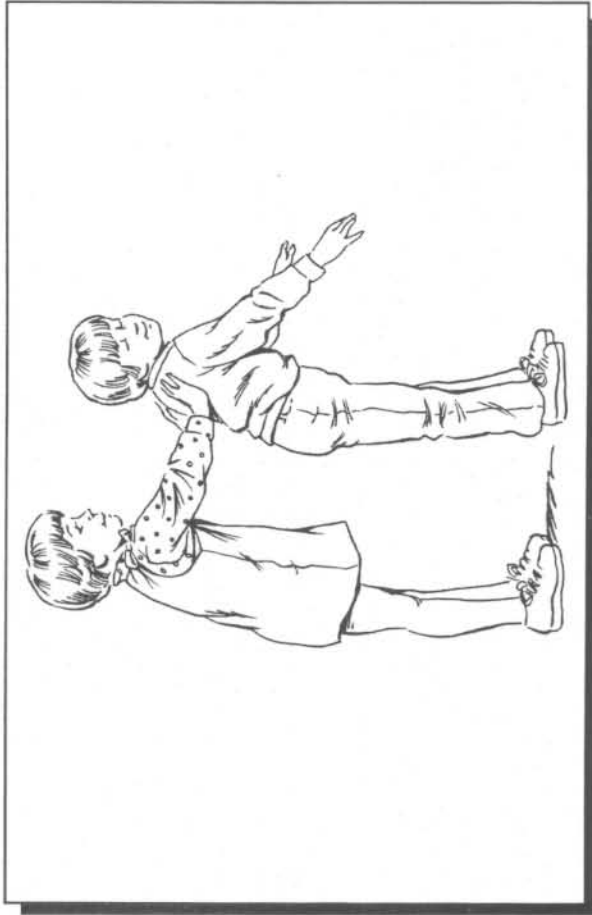
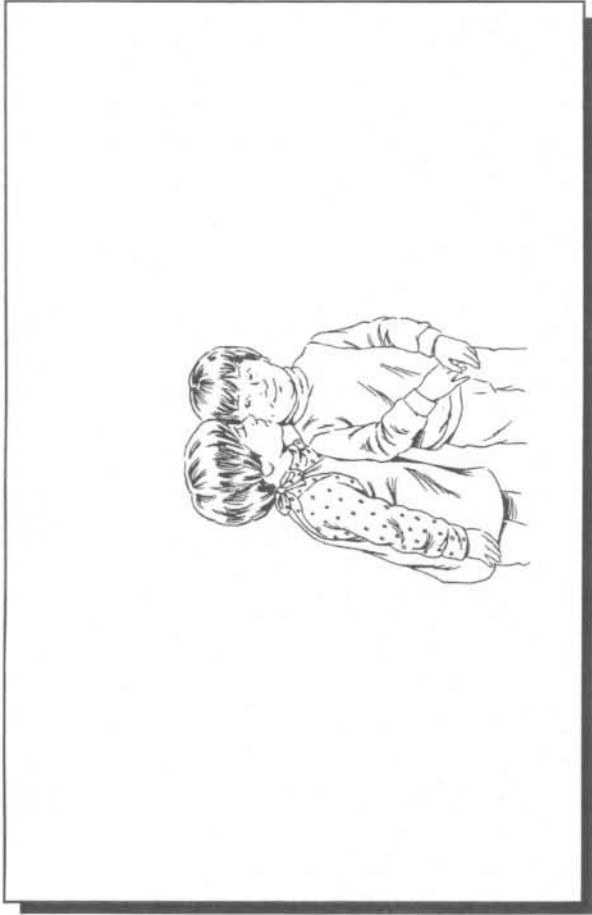
Mommy's hugging.



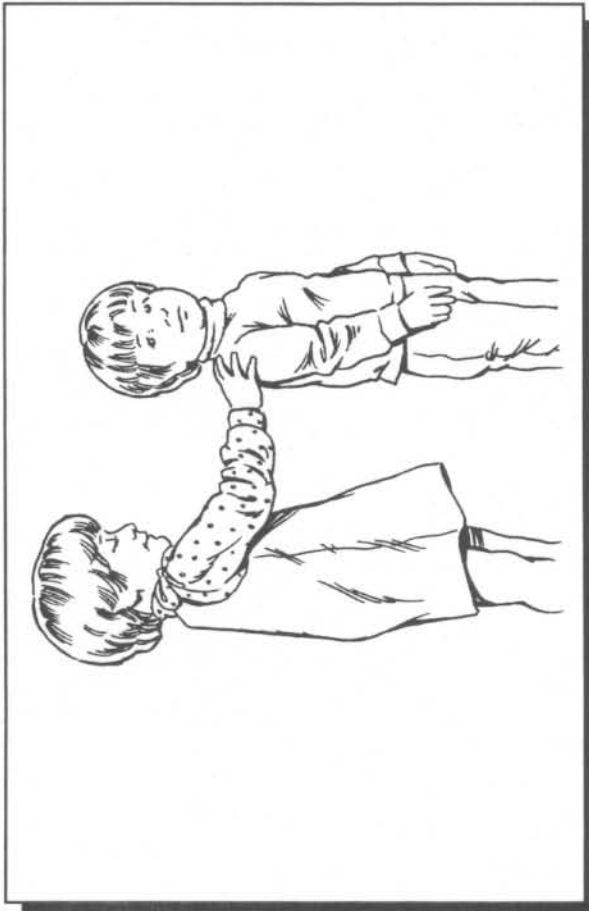
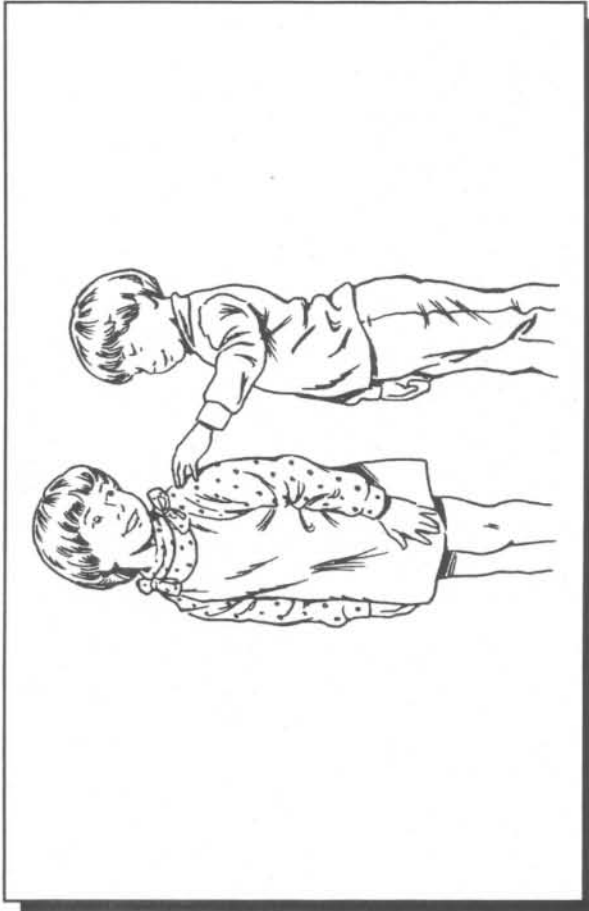
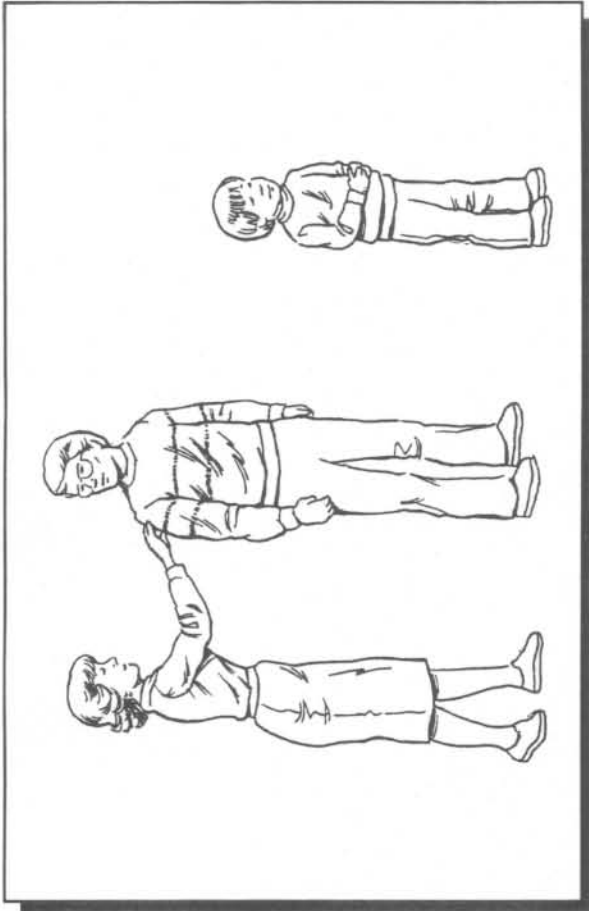
Pushing the girl.



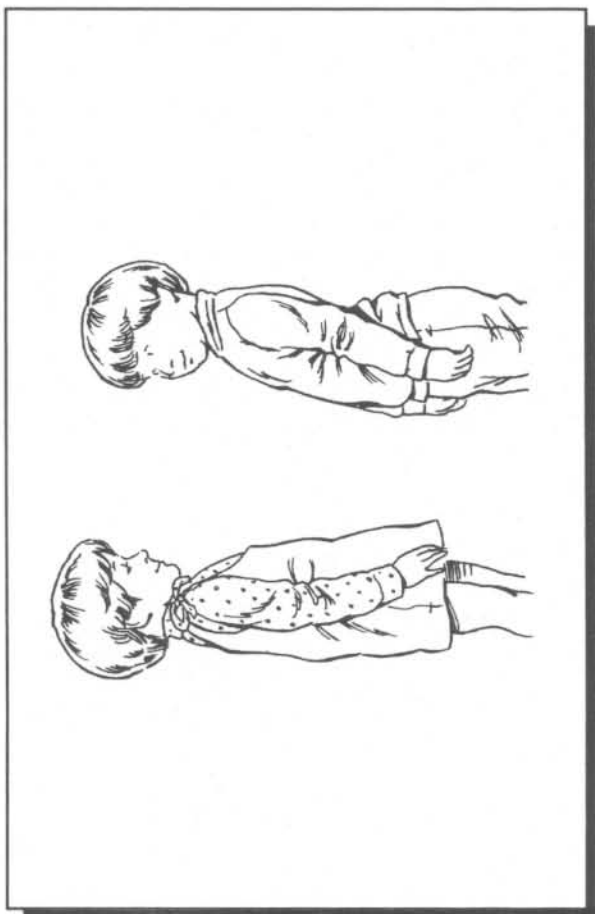
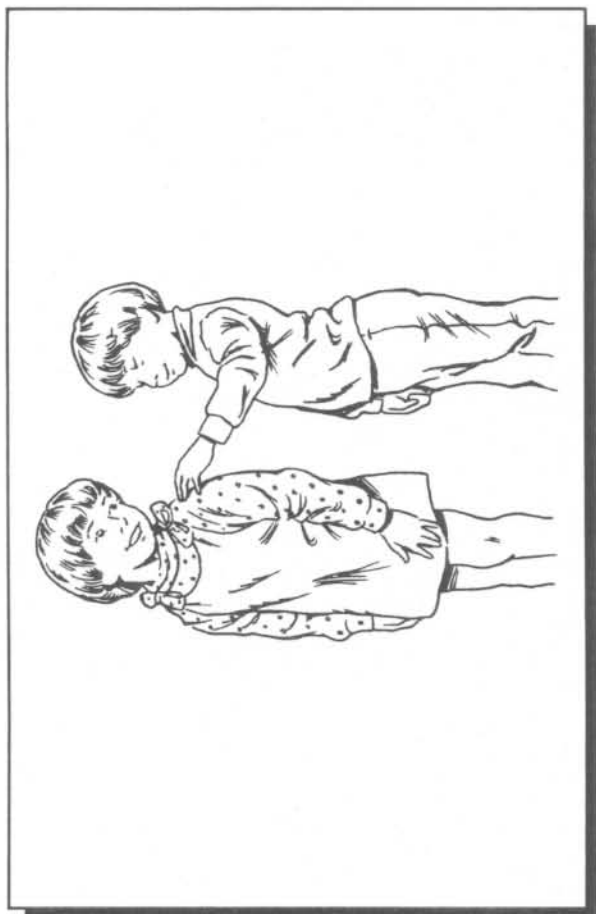
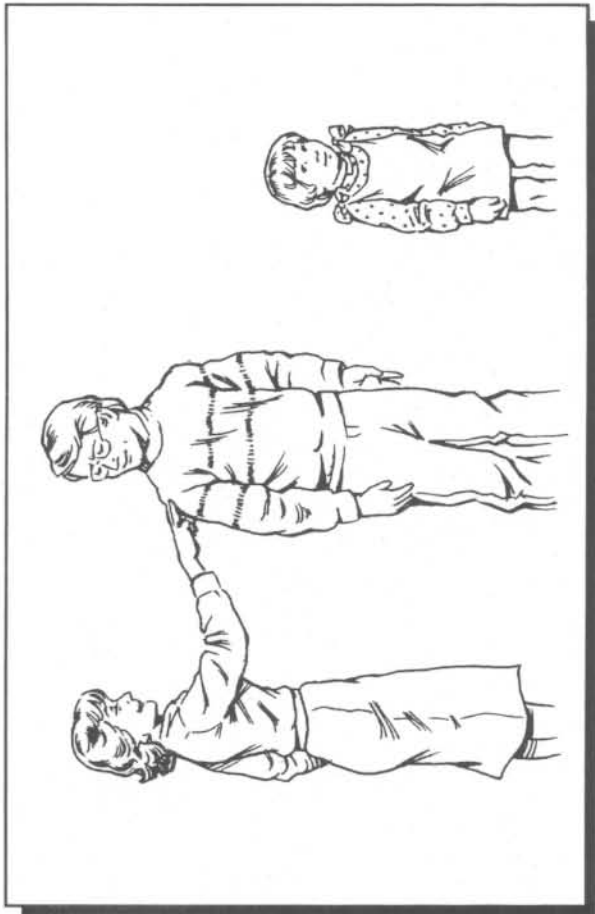
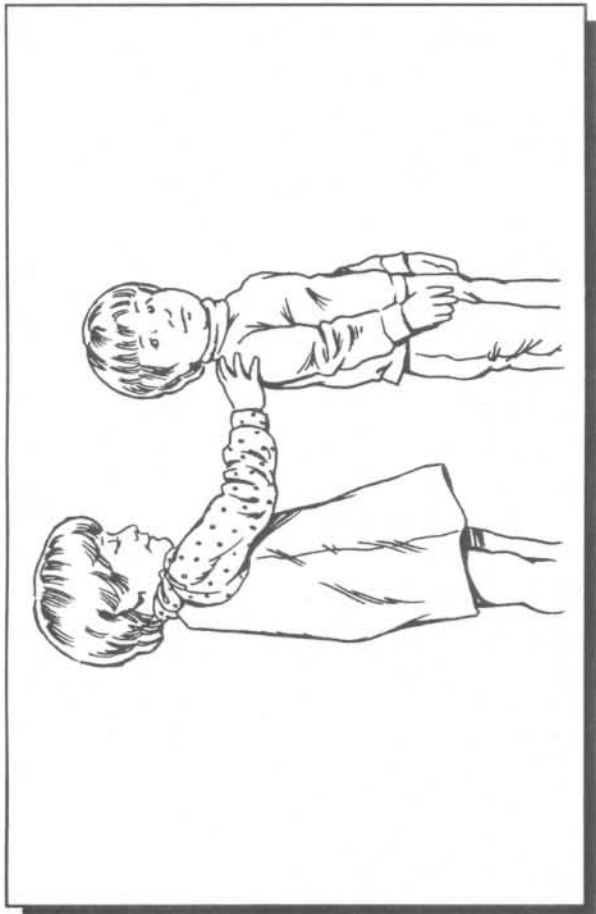
Pushing the boy.



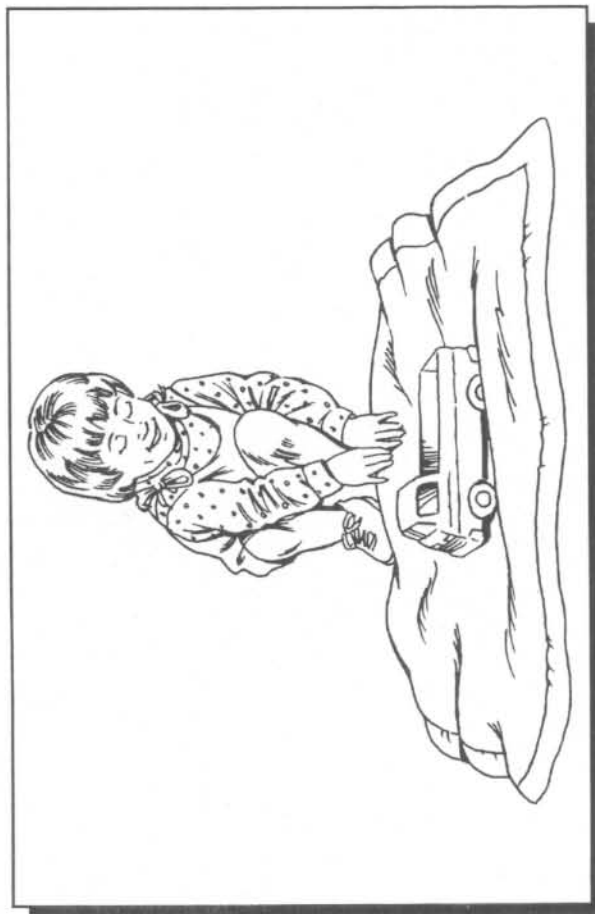
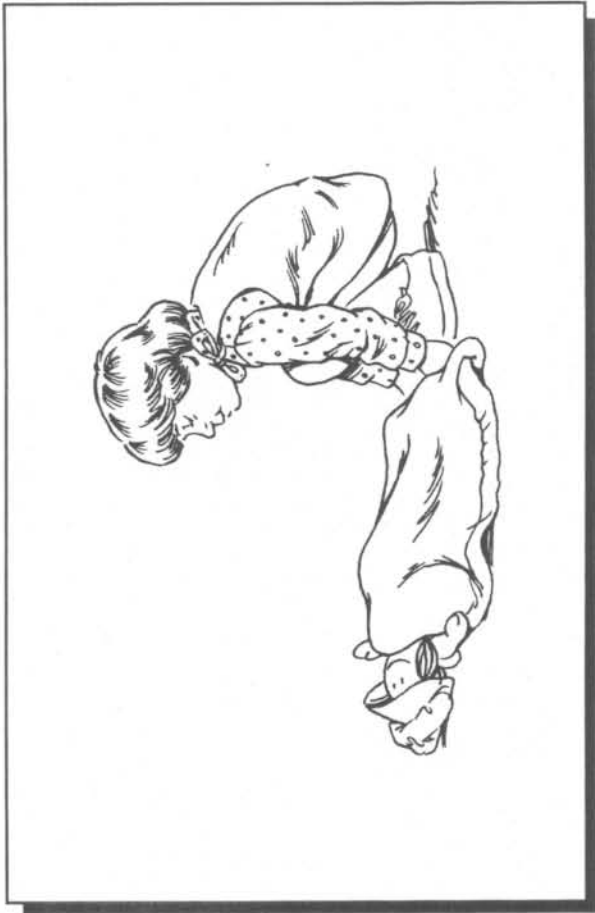
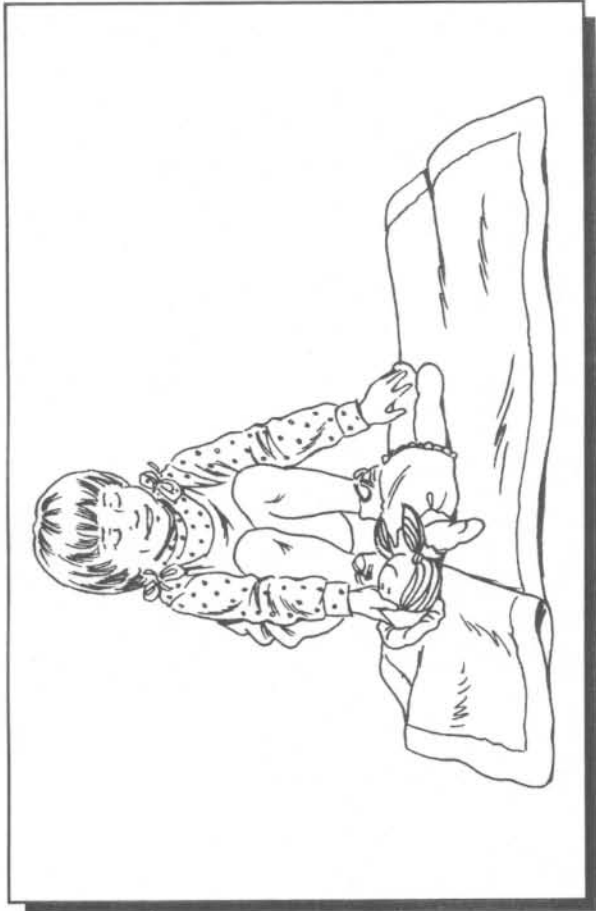
Touching the boy.



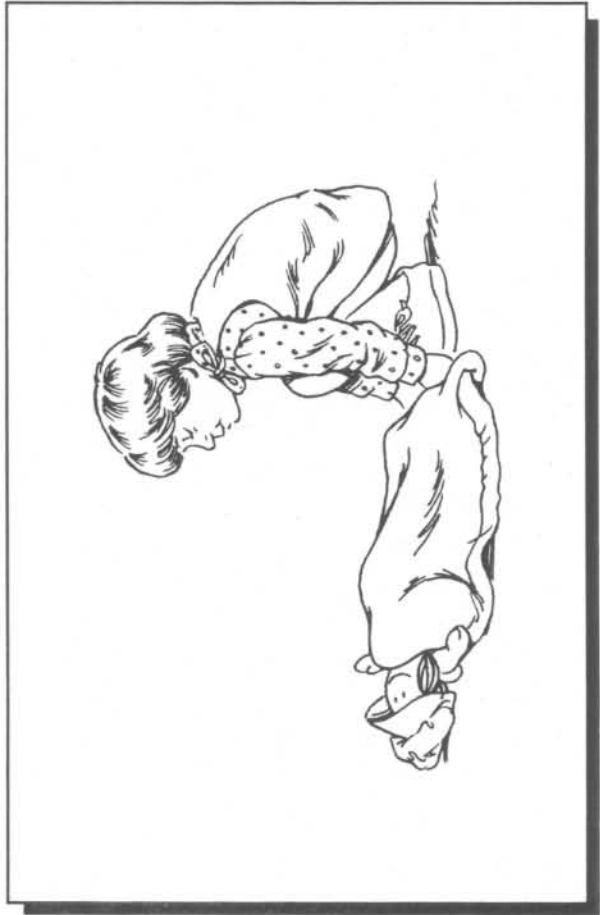
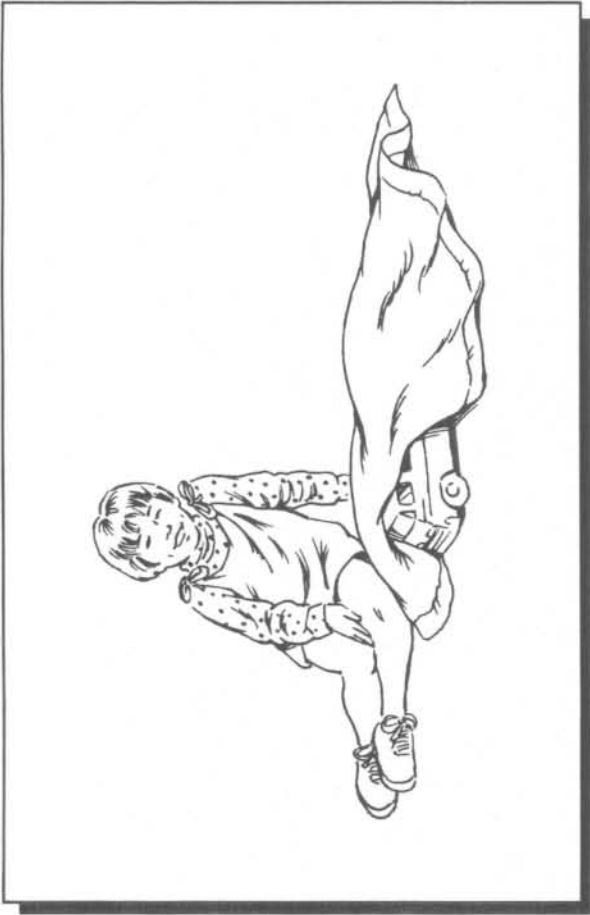
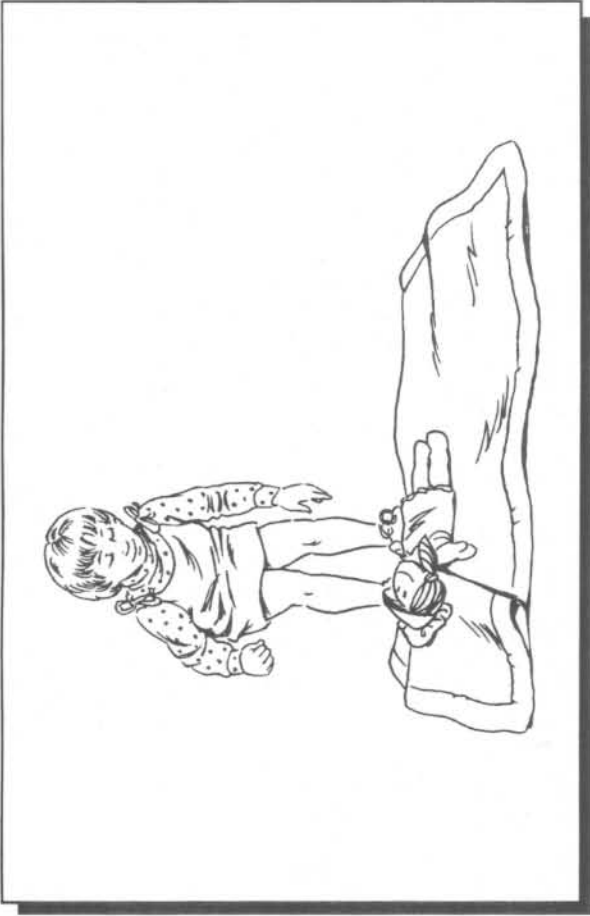
Touching the girl.



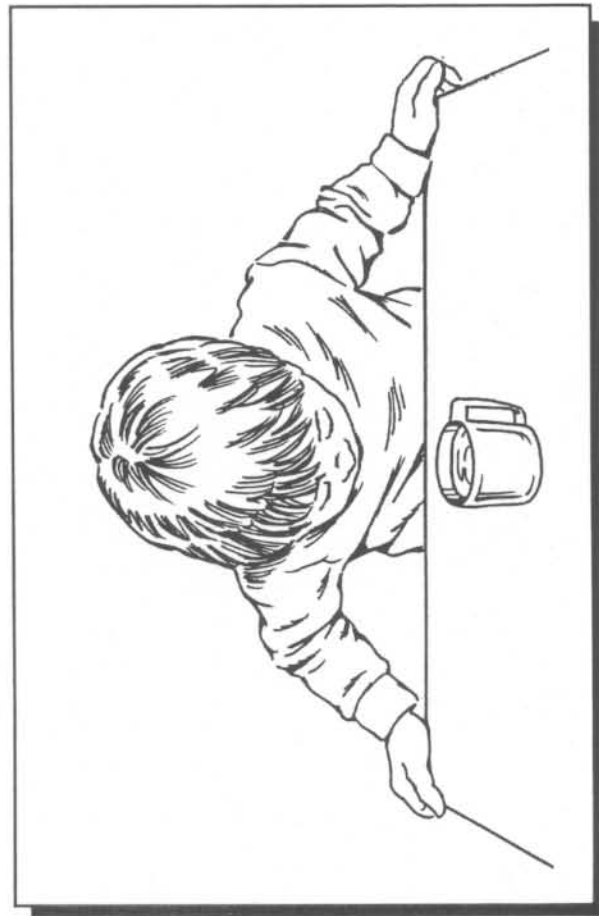
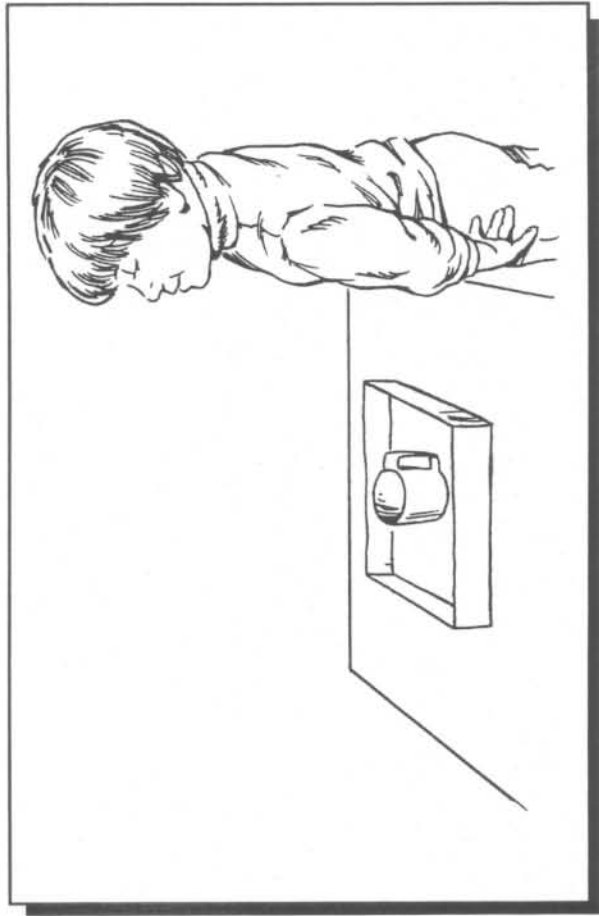
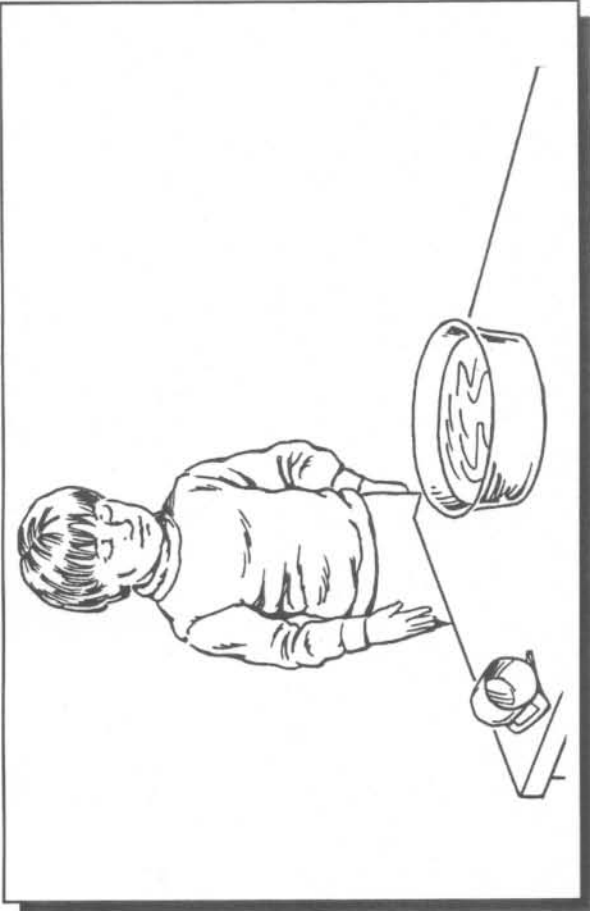
Doll on blanket.



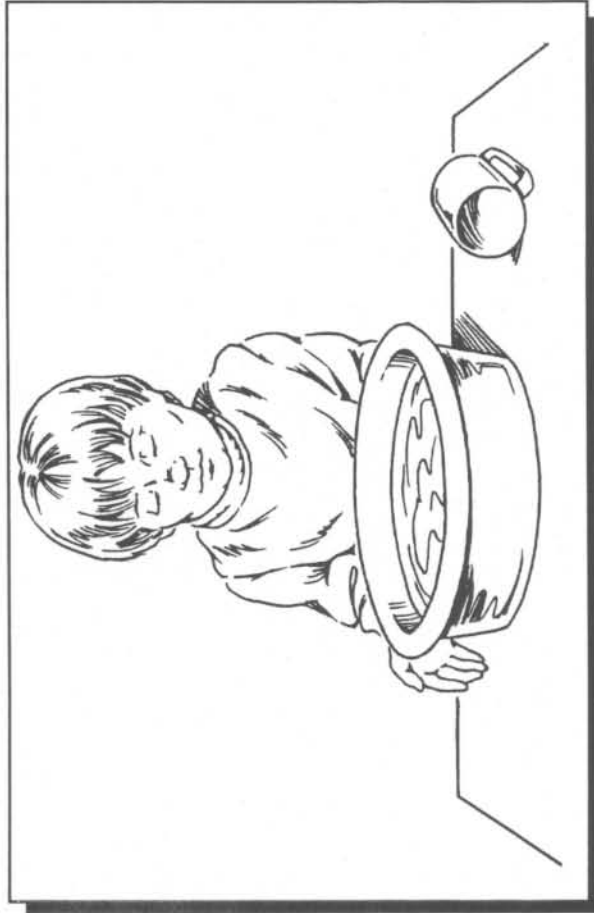
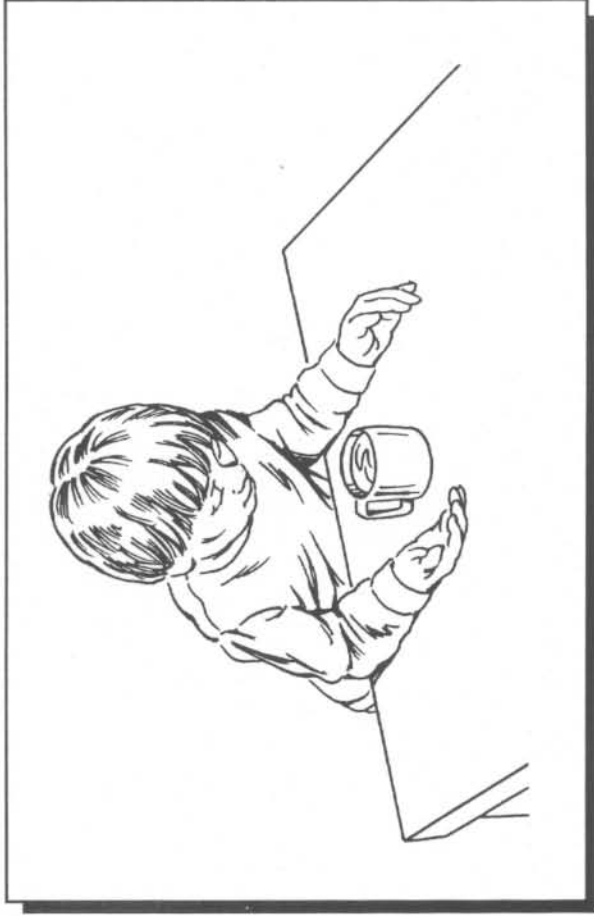
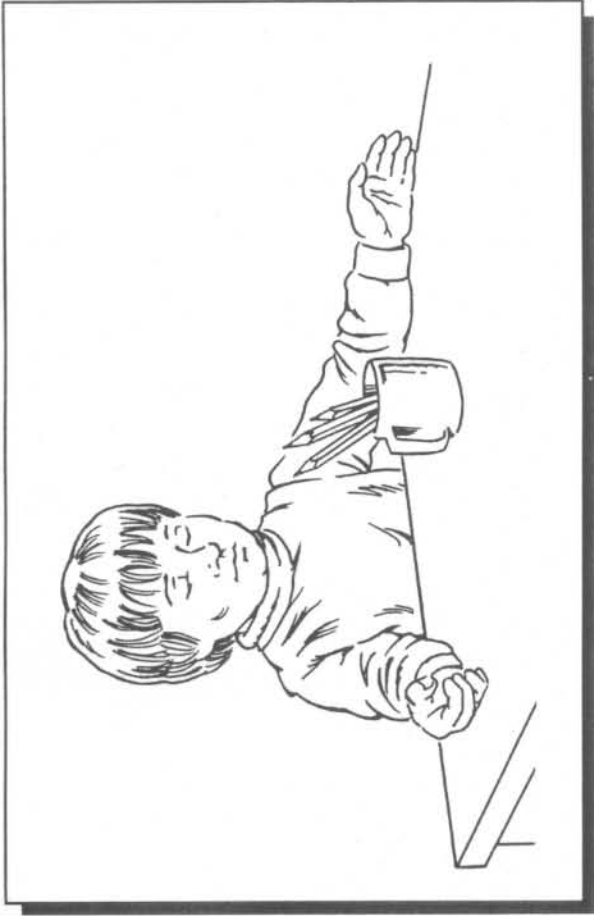
Blanket on doll.

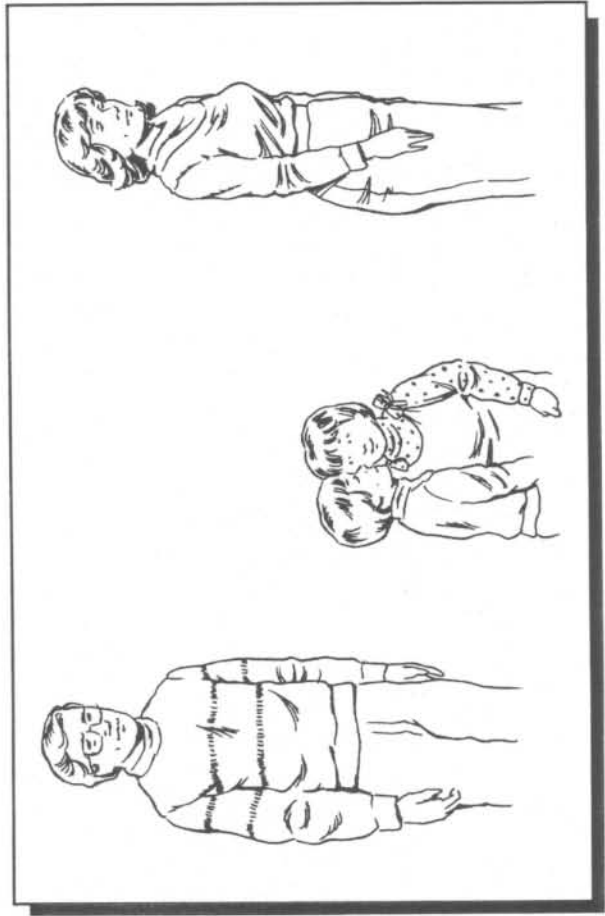
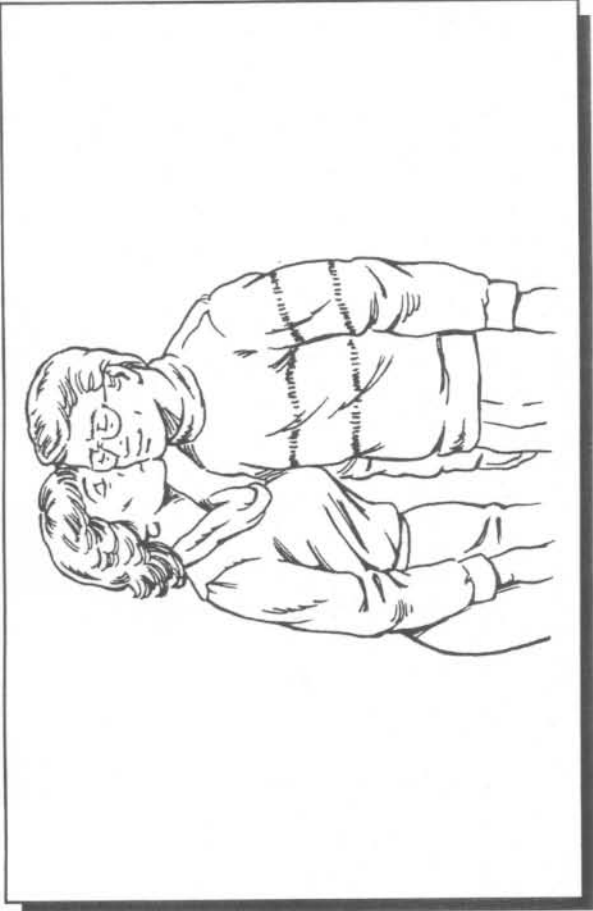


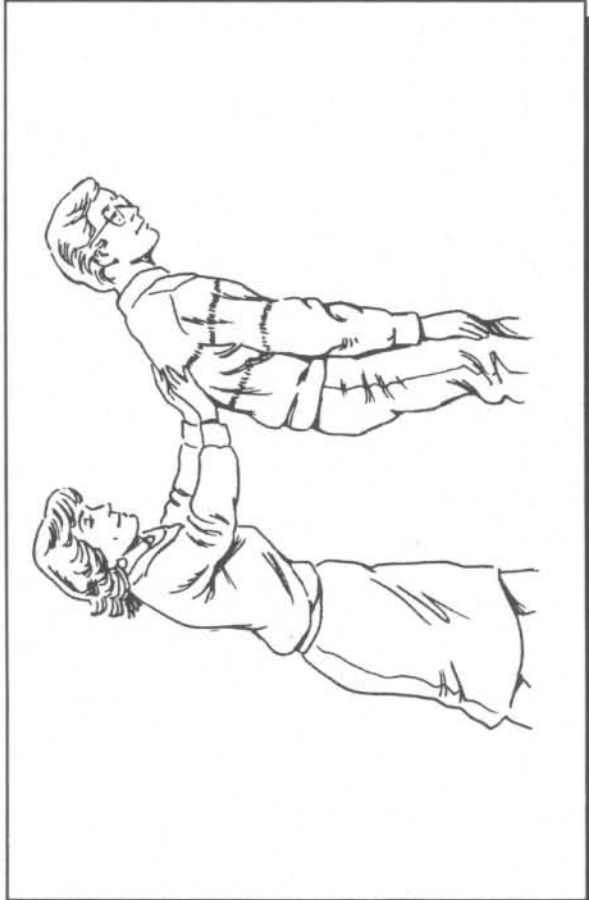
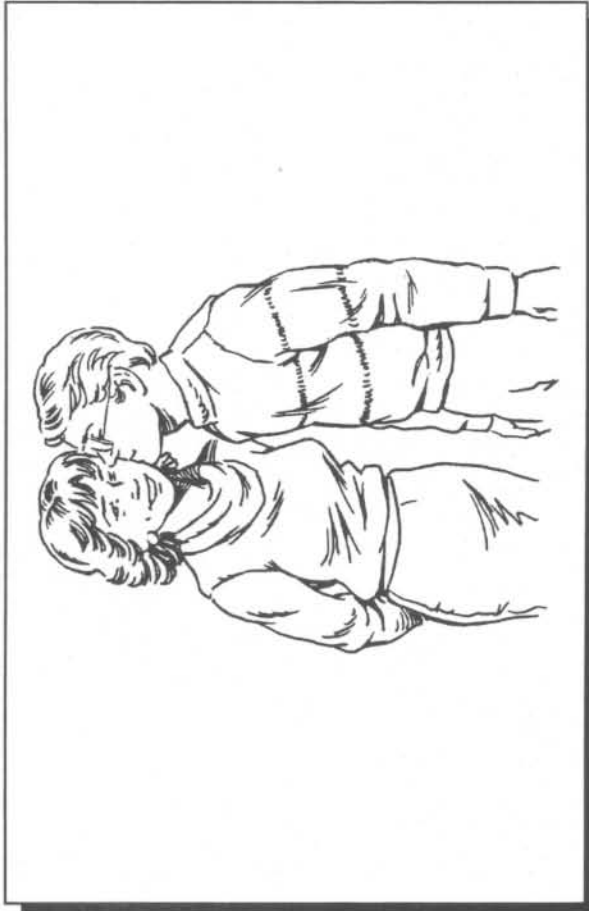
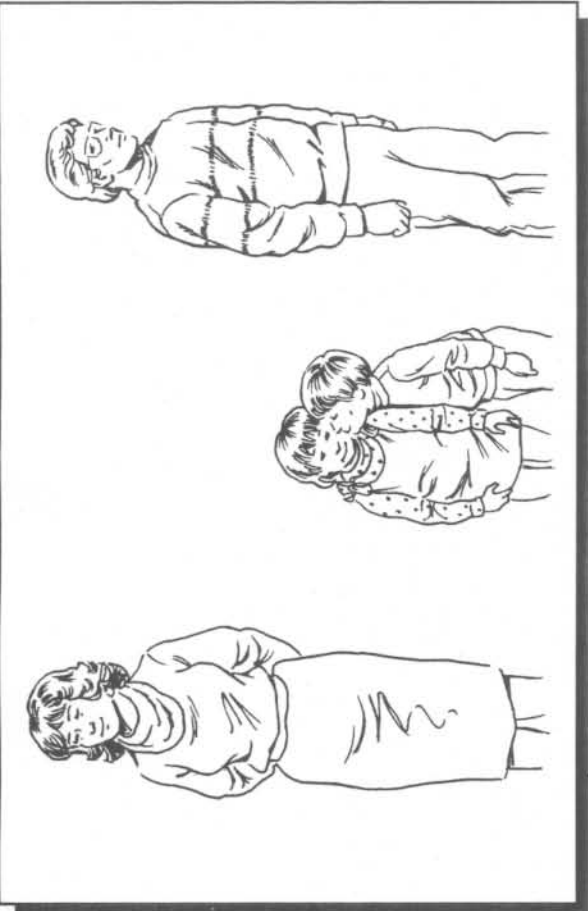
Cup in water.



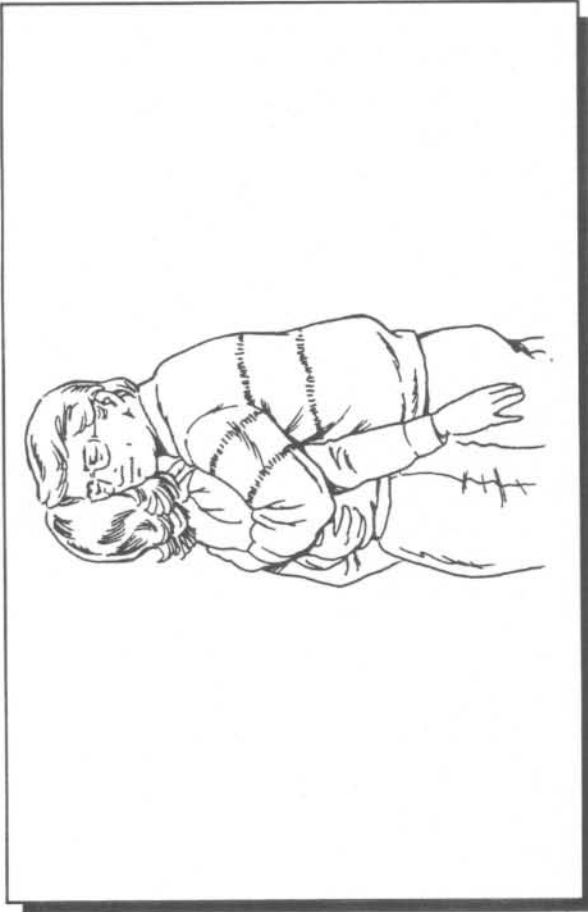
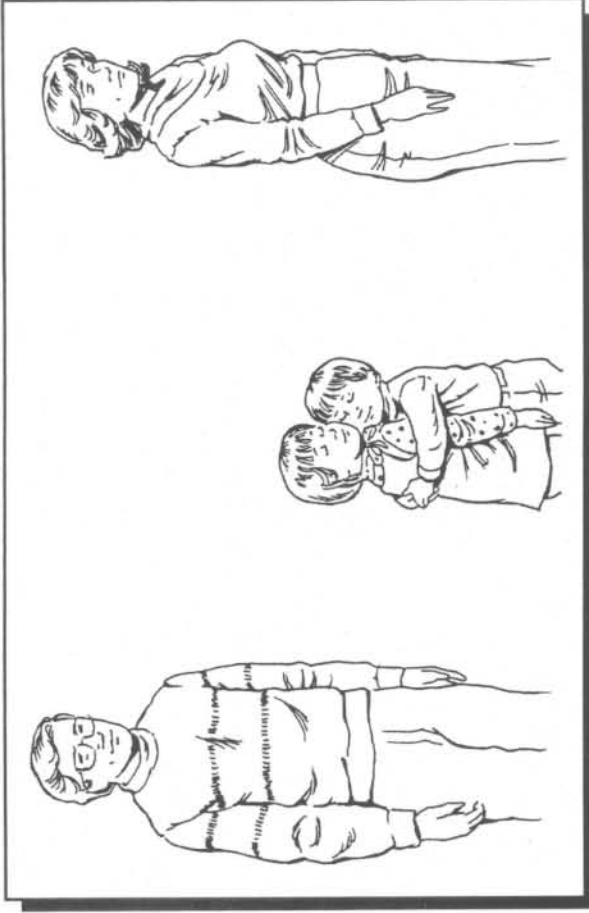
Water in cup.

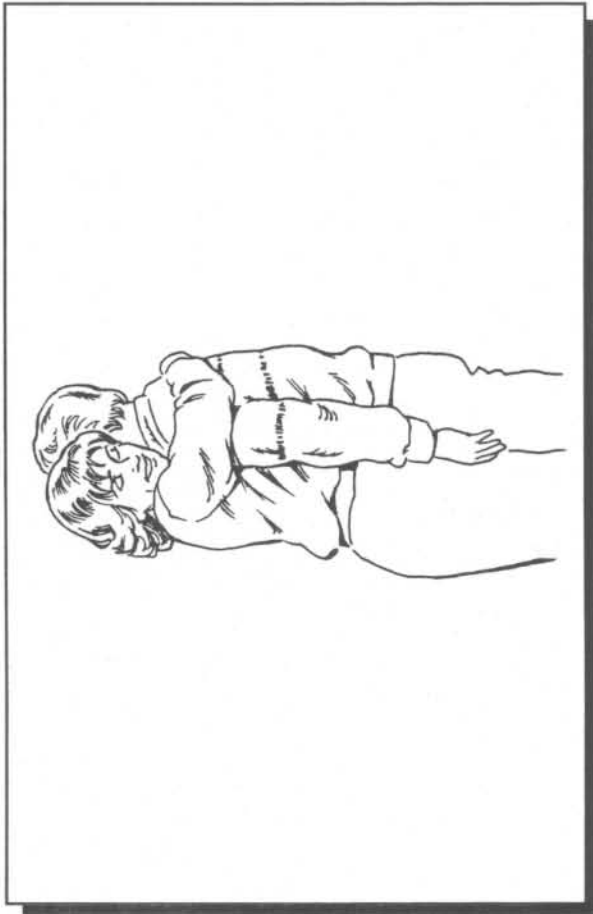
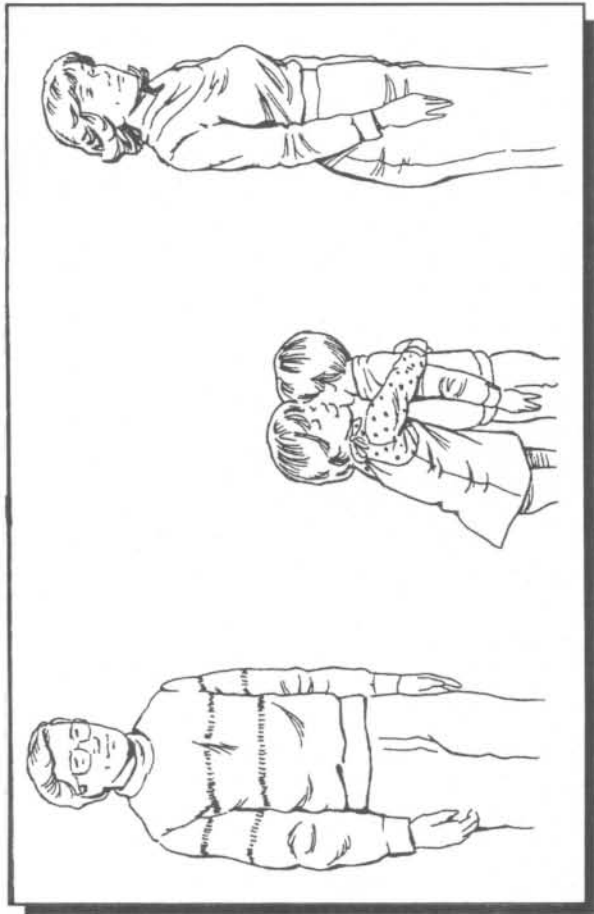
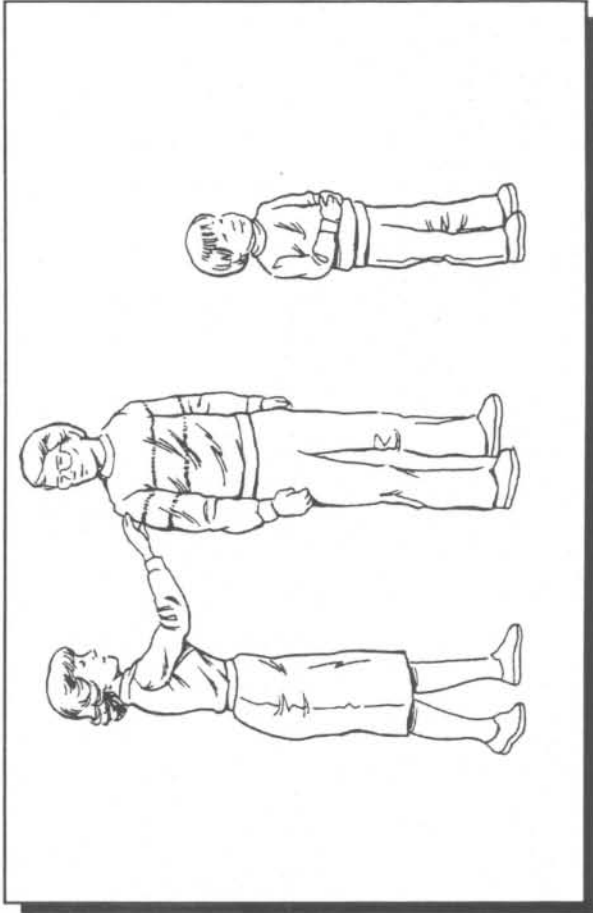




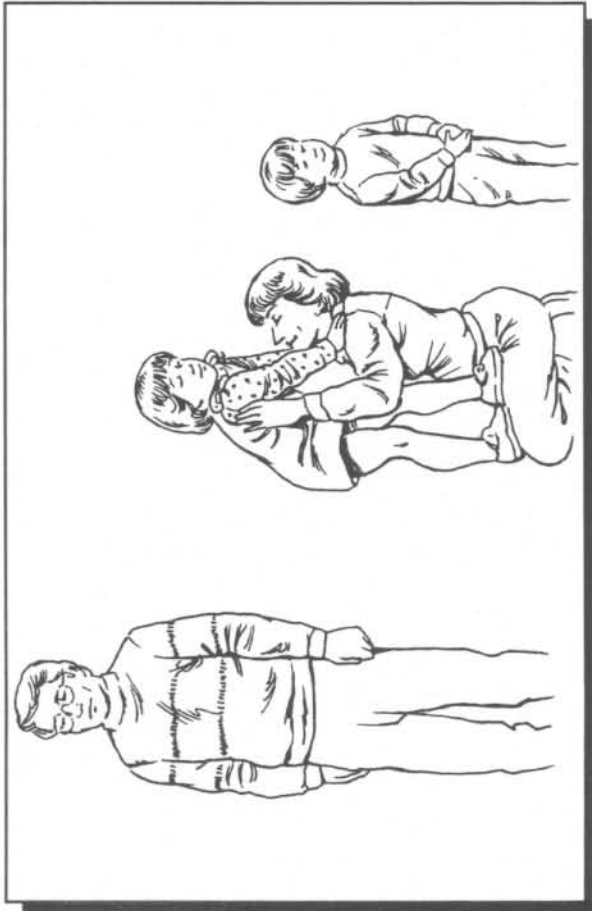
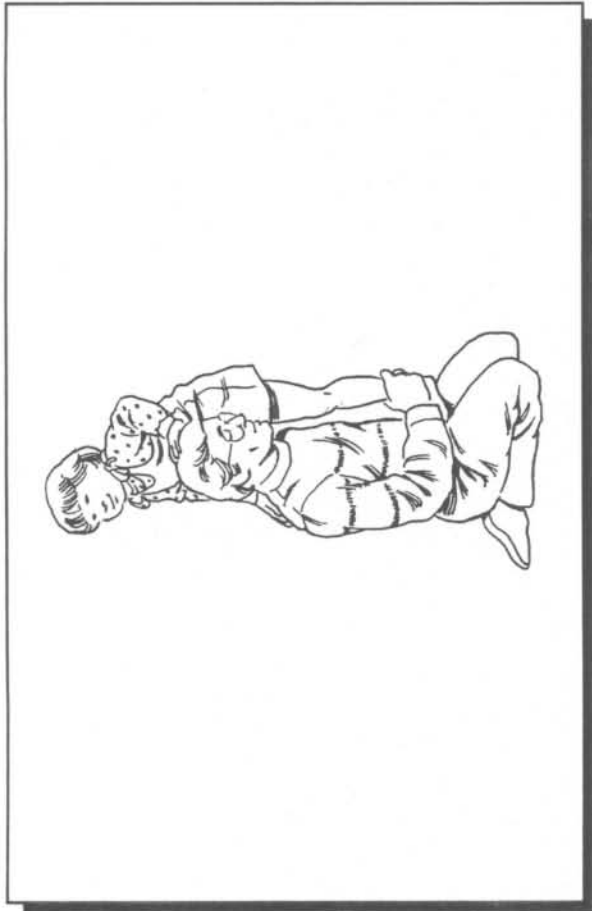


Mommy's hugging Daddy.

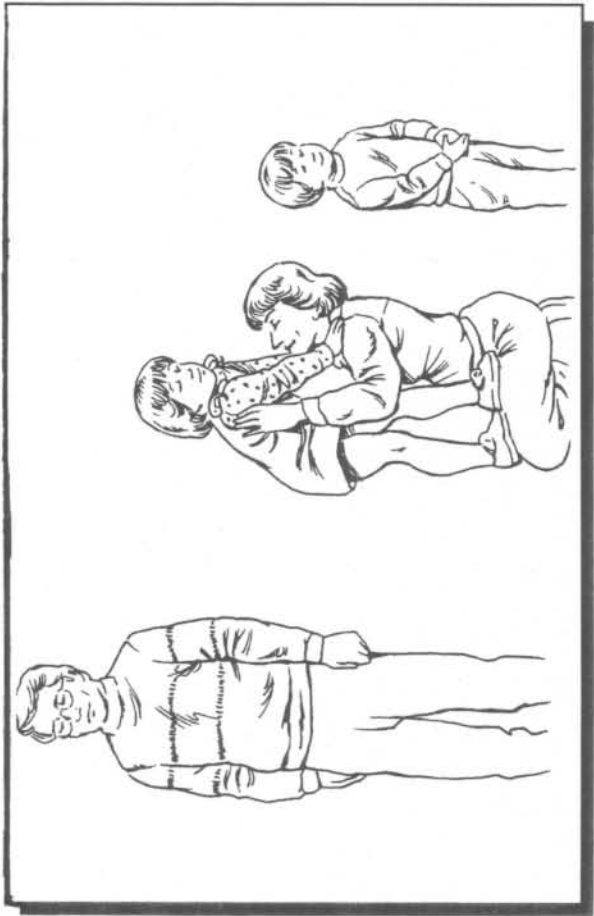
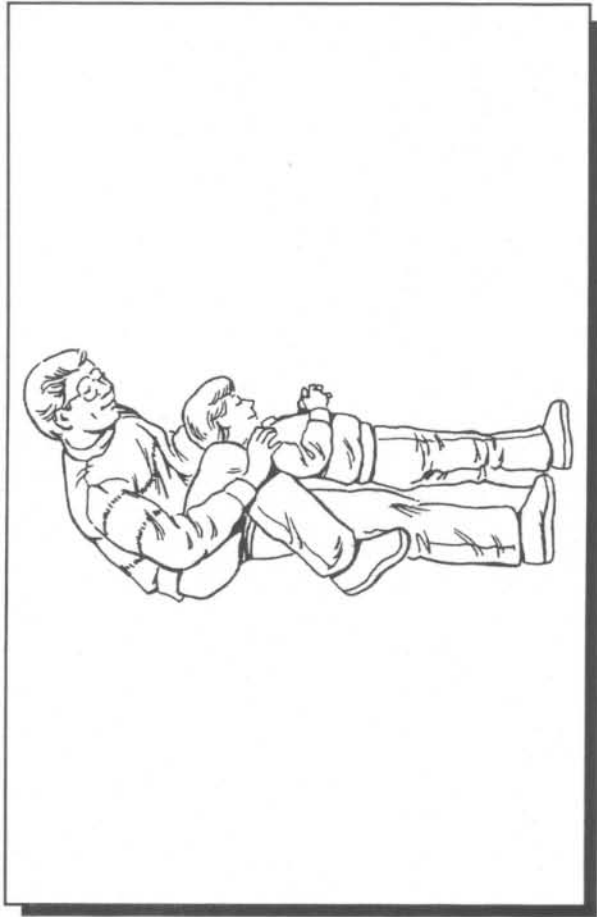
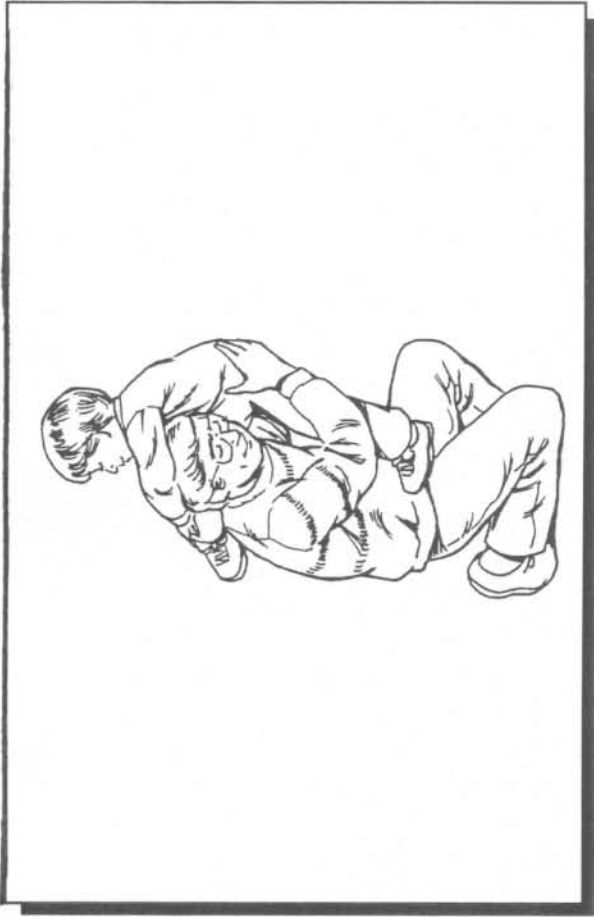




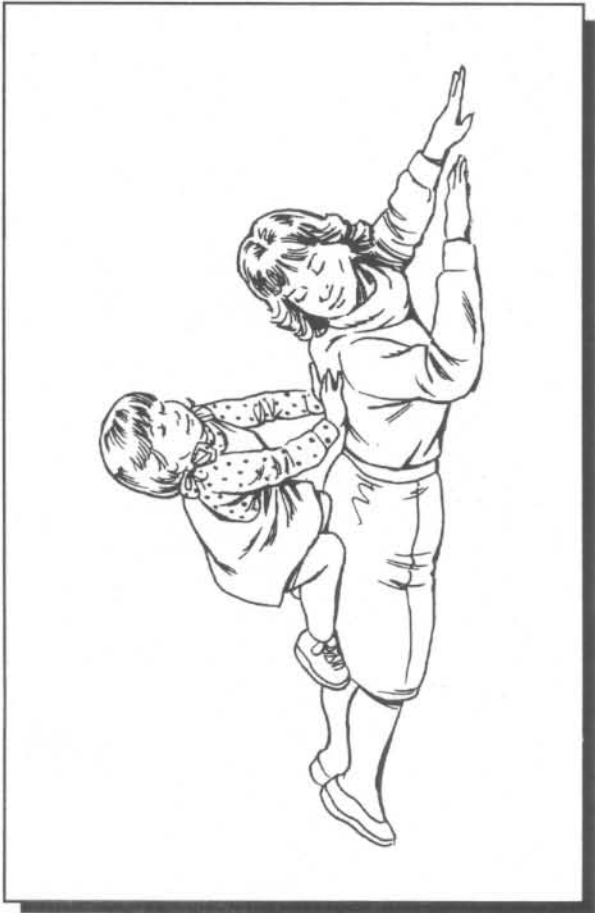
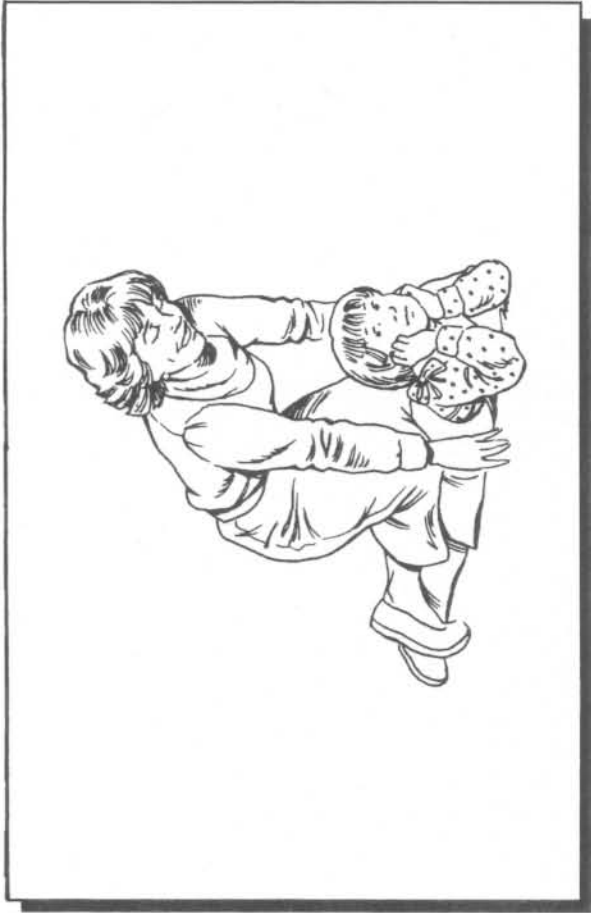
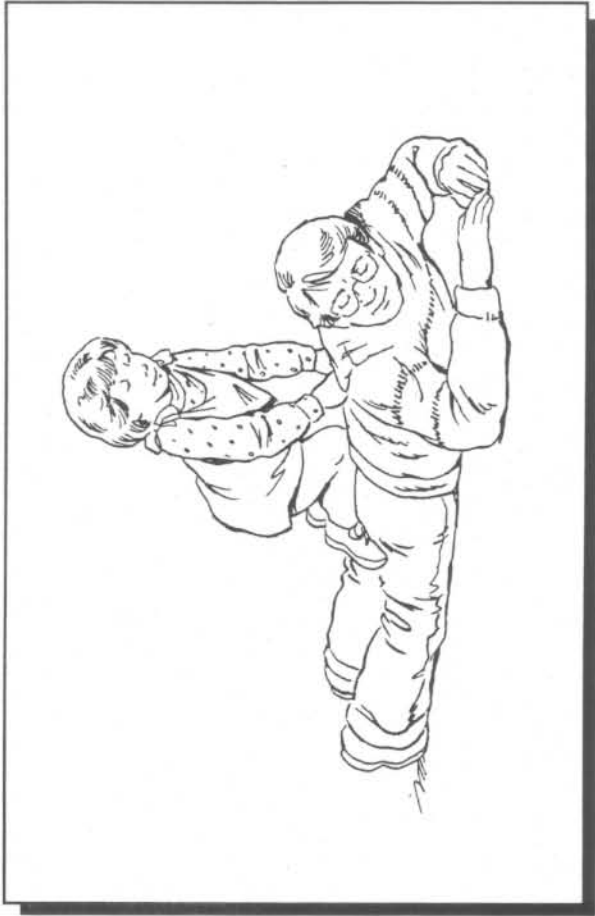
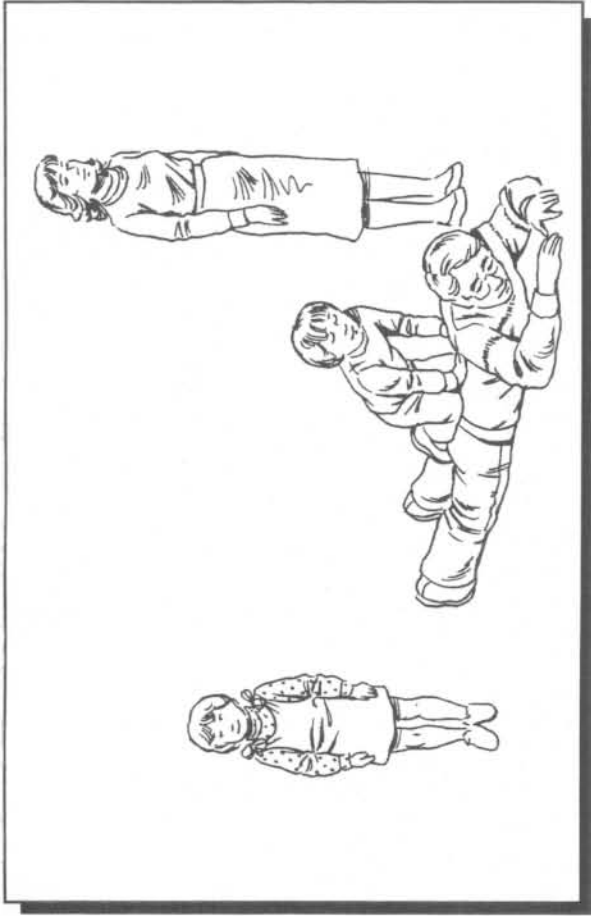
The boy climbs on Daddy.



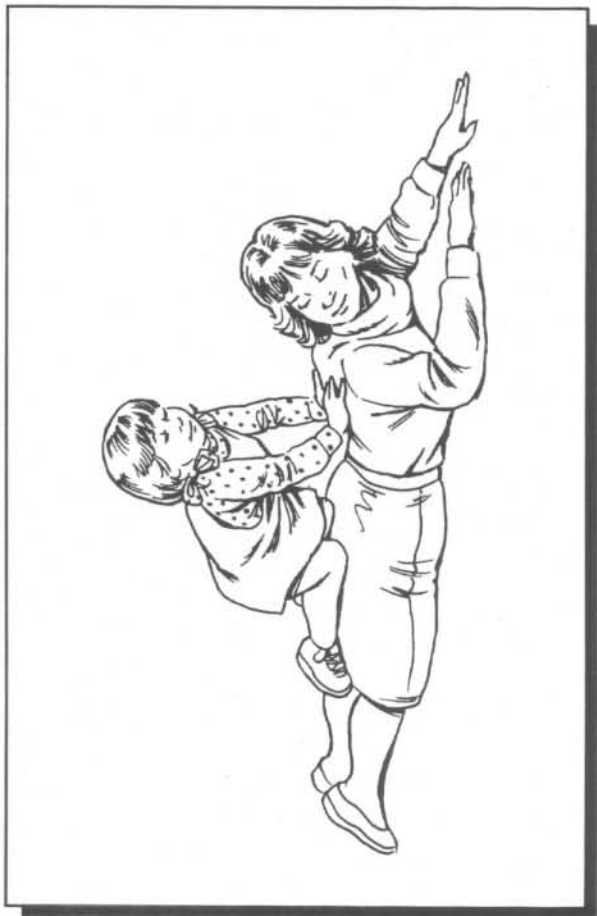
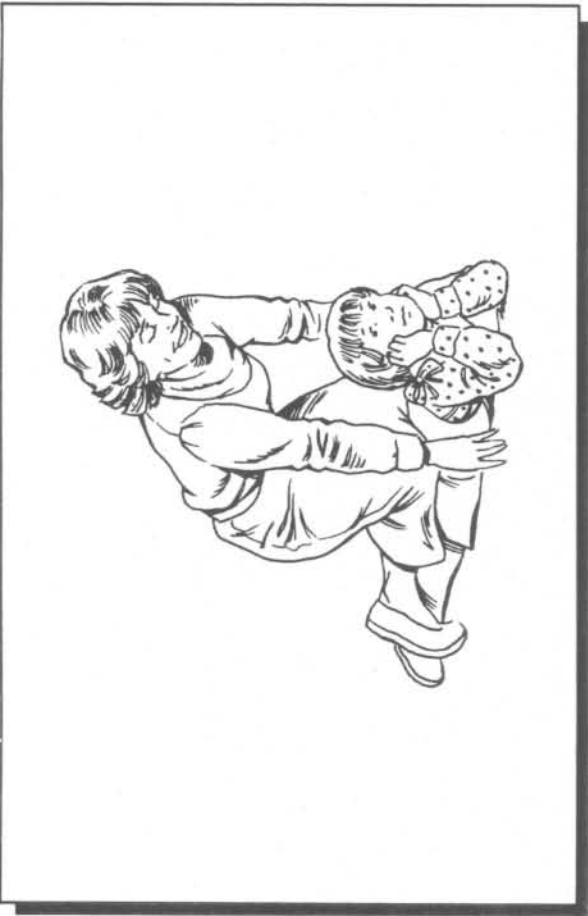
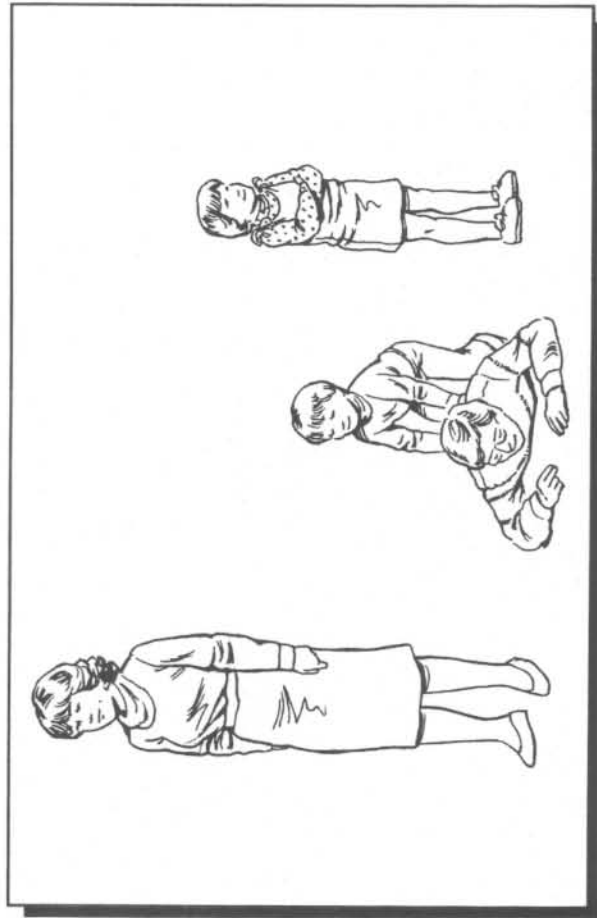
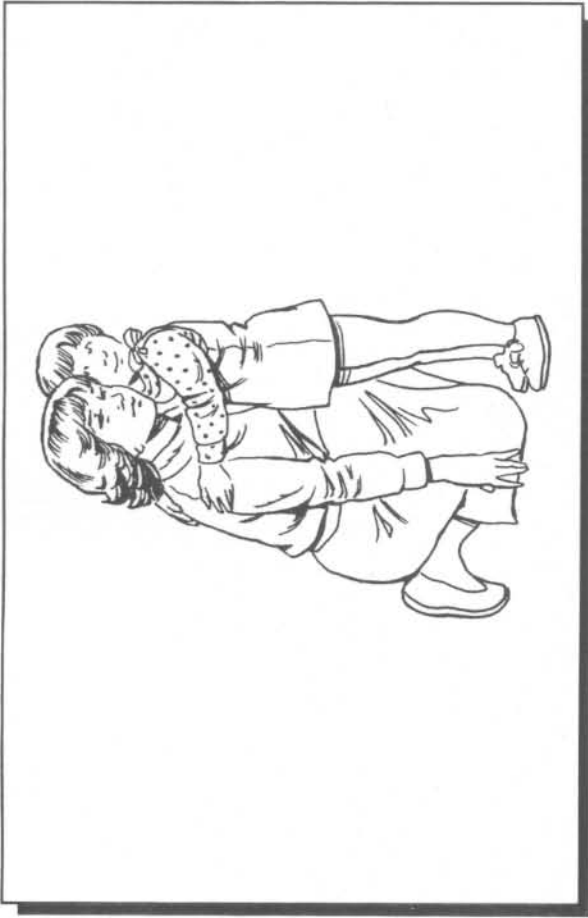
Daddy climbs on the boy.



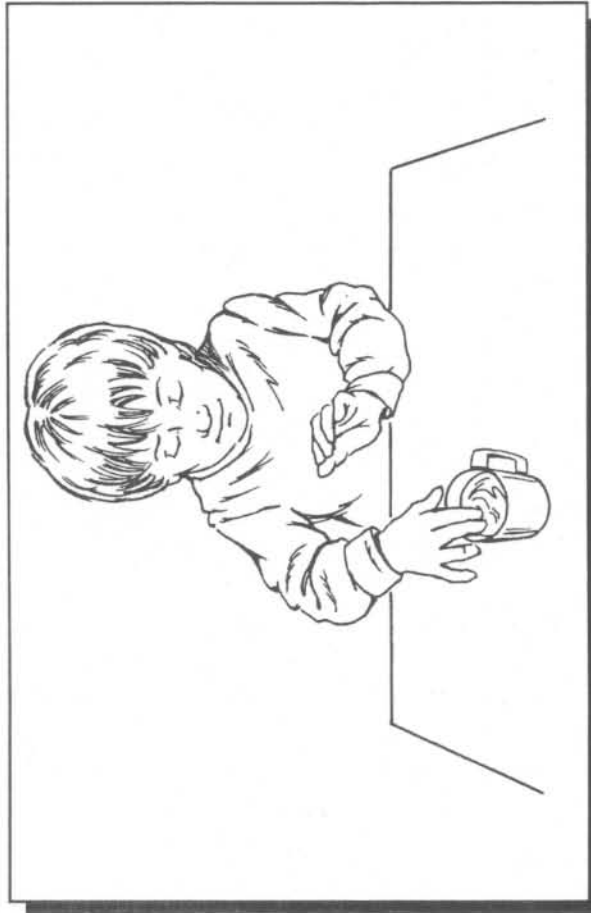
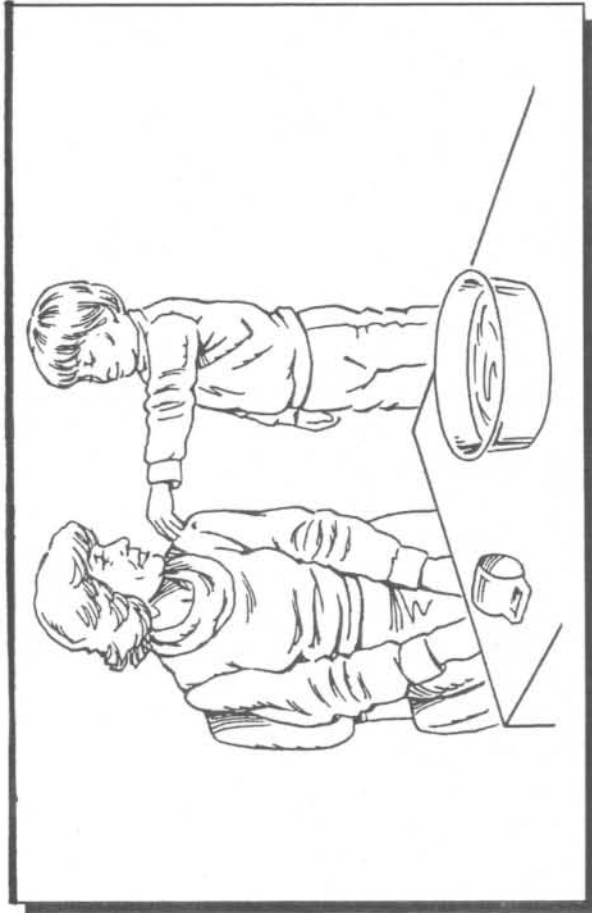
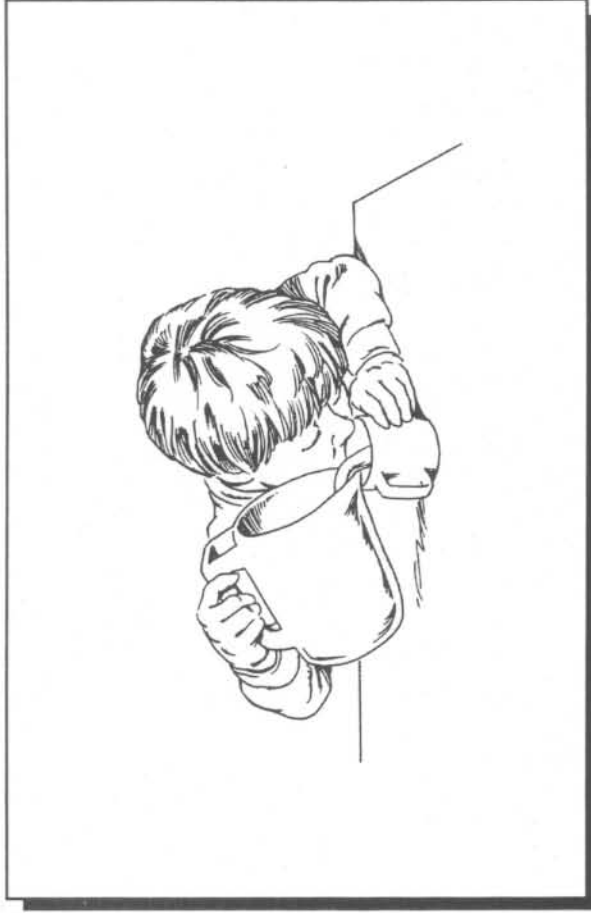
The girl crawls on Mommy.



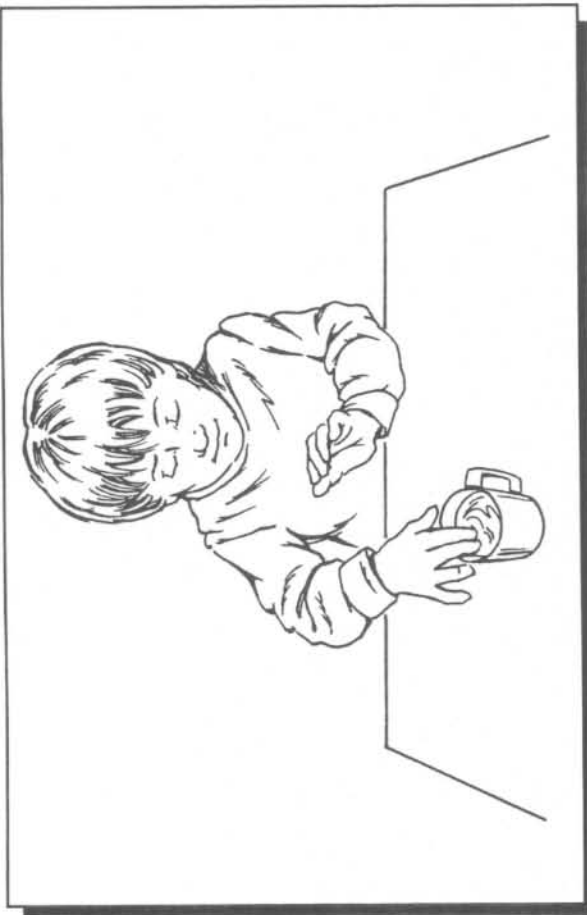
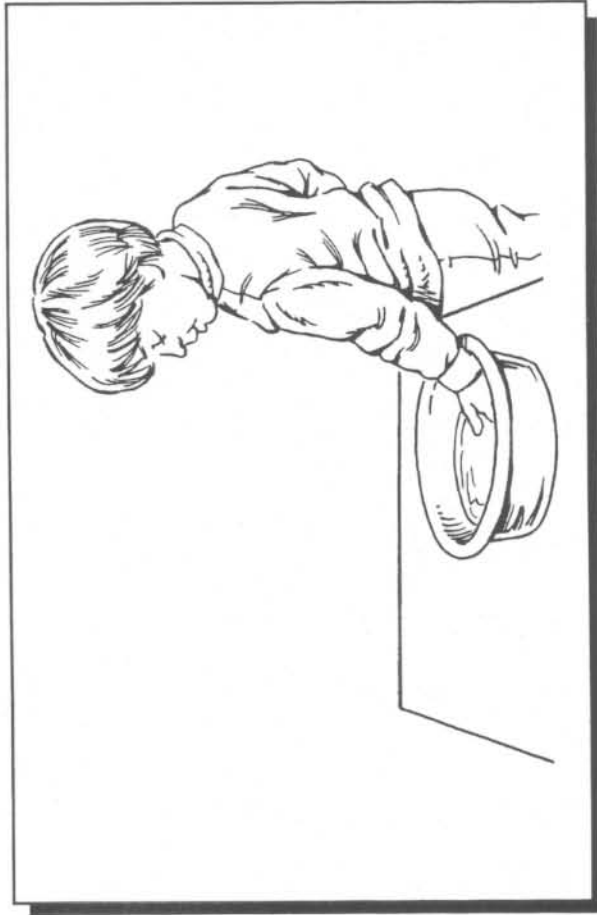
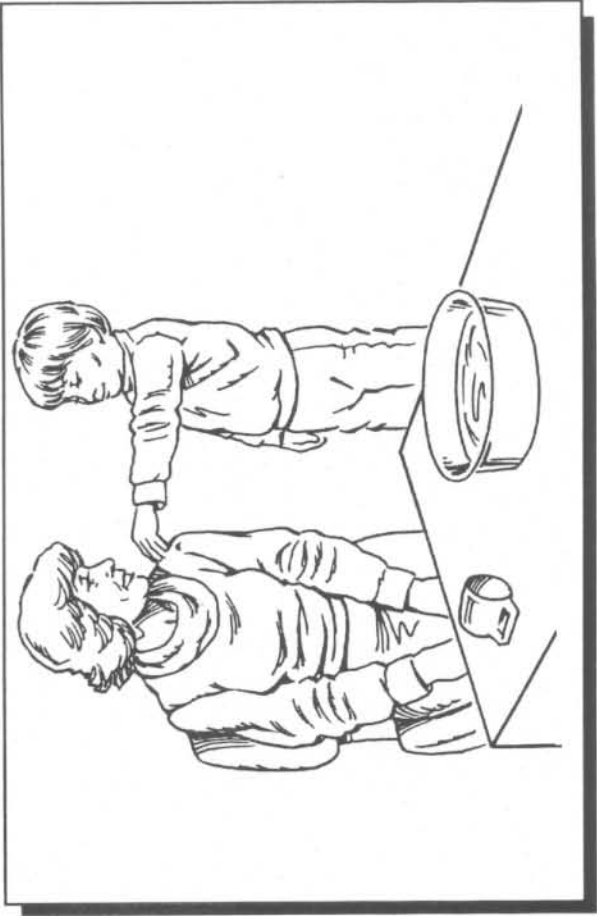
Mommy crawls on the girl.



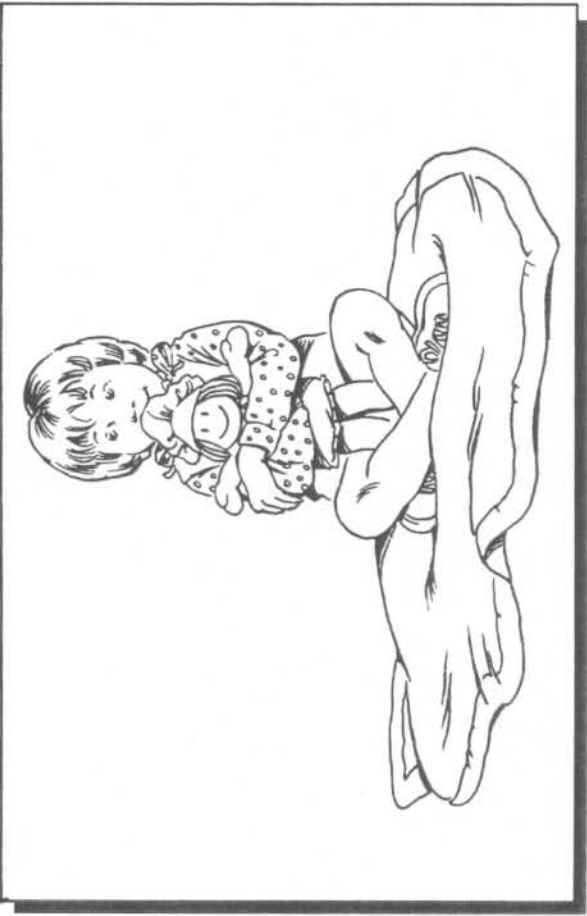
Touching the water in the cup.



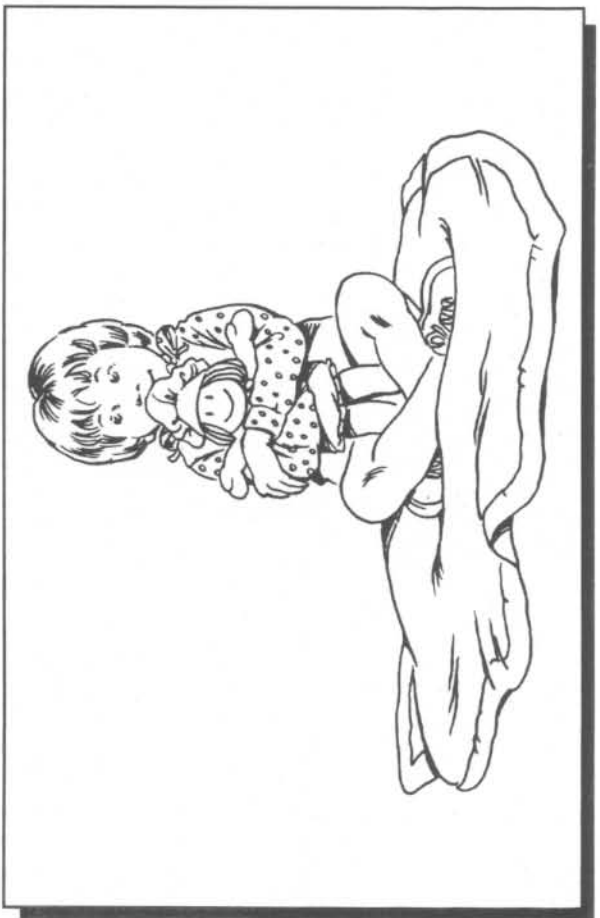
Touching the cup in the water.



Hugging the doll on the blanket.



Hugging the blanket on the doll.



PROCEDURE
3.8



Question Comprehension: Conversational Format

DEVELOPMENTAL LEVEL	24–60 months
LINGUISTIC LEVEL	Lexical/syntactic
LINGUISTIC STIMULI	Wh- question words and question forms listed on the score sheet on page 127
RESPONSE TYPE	Natural—answers
MATERIALS	<ul style="list-style-type: none">• Pretend-play materials, storybooks, sequence cards, and puppets appropriate for the conversational context• Tape recorder and cassettes (optional)
PROCEDURE	<ol style="list-style-type: none">1. In the course of an ordinary conversation, ask questions that include the question words being tested. A variety of conversational contexts may be used, including:<ol style="list-style-type: none">a. <i>Free play</i>: Ask a series of questions that are appropriate for the theme of the play. You may have to make sure that the toys selected allow for the needed question forms to be asked a number of times.b. <i>Storybooks</i>: You will have more control over the question forms to be asked because the questions can be preplanned around the events in the stories.c. <i>Snack time</i>: Ask the child about the food being eaten, home activities, how the child got to the evaluation setting, and so forth. This activity can be set up so that some questions are preplanned and others occur spontaneously from the child's interest.d. <i>Sequence cards</i>: Allow the child to answer questions about the story sequence the examiner has arranged. If the child is willing or capable, have him or her make up a story and then you ask questions about it.e. <i>Puppet play</i>: Puppets can be used to act out a story while the child watches. Give the child information about the action of the story, and then ask the child questions about the action.2. Record responses on a score sheet like the one on page 127.

PASSING RESPONSE

Answers to questions are considered correct if they are semantically appropriate (i.e., a number answer is given to a "How many?" question) even if the answer is not true, such as:

Clinician: How many fingers do I have?

Child: Three.

Each question word should be tested several times and more than one correct response should be obtained before giving credit for comprehension of any question form.

RESPONSE STRATEGY

- "Supplying the missing information"

PROCEDURAL NOTES

- The score sheet on page 127 provides a developmental sequence for the order of acquisition of answers to questions in typically developing preschoolers. It is designed to serve as a score sheet for recording data on children's answers to questions.
- It is a good idea to tape record the question-answer session in order to have a record of the specific questions asked, the responses, and the preceding and following conversational context. This will provide the necessary data to interpret questionable responses where intervening variables, such as grammatical complexity of the question, may affect the child's response.
- It is imperative that you do not ask questions about information the child knows you already have. Asking questions about obvious information will result in the child refusing to play with such a "silly adult."

PROCEDURE
3.9



Question Comprehension: Structured Format

DEVELOPMENTAL LEVEL	24–60 months
LINGUISTIC LEVEL	Lexical/syntactic
LINGUISTIC STIMULI	Question words and question forms listed on the score sheet on page xxx
RESPONSE TYPE	Natural—answers
MATERIALS	<p>Dependent upon scripts; for scripts used as examples here, use the following:</p> <p>For Script 1:</p> <ul style="list-style-type: none">• Mommy, Daddy, and dog dolls• Dollhouse with furniture, colored blocks, toy cars and trucks <p>For Script 2:</p> <ul style="list-style-type: none">• Two hand puppets (“Monster” and “Grunge”), stick, cookies, toy trucks, pebbles, box
PROCEDURE	<ol style="list-style-type: none">1. Devise a story script that includes information about which the child will be questioned.2. Write test questions into the script.3. Develop a script score sheet. <p>Two example story scripts, complete with test questions and corresponding score sheets (see pp. 128–130 and pp. 131–132), are provided here. You may use these or develop your own. Another possibility is to use a storybook (e.g., <i>Peter Rabbit</i>) as the basis for the procedure. As you administer this procedure (using a script provided here, one of your own creation, or a storybook), remember that the answers to some questions, such as “How far?” and “How much?”, might be difficult to elicit in free conversation; avoiding this problem is the purpose of this procedure.</p> <ol style="list-style-type: none">4. Tell the story or enact the script, embedding questions throughout the process. The goal of this procedure is to test comprehension, rather than memory, so ask each question immediately following the sentence containing the information necessary for the answer; for example: <p style="text-align: center;">“Peter Rabbit ate lots of Farmer’s carrots. How much did Peter Rabbit eat?”</p>

5. Record the child's responses on the script score sheet. Indicate whether the child gave a correct motor response, correct verbal response, incorrect response, or no response. If the child tends to give motor rather than verbal responses, encourage him or her to speak. For example, you might say, "Please *tell* me the answer. I want to hear you say it."
6. Transfer the data on the script score sheet to a score sheet like the one on page 127. To facilitate data interpretation, record both correct motor and verbal responses as accurate responses.
7. Examine the question words the child consistently interpreted correctly and incorrectly. Target forms consistently answered incorrectly for intervention.

PASSING RESPONSE

Credit is given for semantically appropriate answers whether or not they are accurate according to the script. For example, if the child answers a "where" question with "away," rather than "home," this is scored as correct even though it is not strictly true according to the script. Remember that you are testing understanding of the question words only.

This format also allows for nonverbal responses. Pointing to the appropriate character or place may be credited as a correct answer. More than one correct response should be elicited for each question form.

RESPONSE STRATEGY

- "Supplying the missing information"

To determine if this strategy is being used, examine the forms that were answered incorrectly consistently—for example, did the child consistently answer "how" questions as "what" questions?

PROCEDURE
3.10



Understanding of Preparatory and Sincerity Conditions for Speech Acts

DEVELOPMENTAL LEVEL	36–84 months												
LINGUISTIC LEVEL	Discourse												
LINGUISTIC STIMULI	Requests, some of which violate typical preparatory and sincerity conditions (e.g., “Please give me that. I don’t want it.”; “Put the dolls in this box. They belong in this bag.”)												
RESPONSE TYPE	Contrived—judgment												
MATERIALS	• Puppets and assorted toys												
PROCEDURE	<ol style="list-style-type: none">1. Explain to the child that the puppet would like to play with him or her.2. Tell the child that sometimes the puppet may ask for things and sometimes the puppet asks “right,” and sometimes he asks “funny.”3. Engage the child in play and make a series of requests in the context of the play.4. Intersperse felicitous and infelicitous forms, such as the following:<table><thead><tr><th>Felicitous</th><th>Infelicitous</th></tr></thead><tbody><tr><td>Can I have that? I need it.</td><td>Can I have that? I don’t really need it.</td></tr><tr><td>Come here. I want to show you something.</td><td>Come here. There’s nothing over here.</td></tr><tr><td>Stop that! It hurts</td><td>Stop that! I like it.</td></tr><tr><td>Put the car here. It goes in the garage.</td><td>Put the car here. It belongs over there.</td></tr><tr><td>Help me with this. I can’t do it.</td><td>Help me with this. I can do it myself.</td></tr></tbody></table>5. Record the child’s responses on a score sheet like the one on page 133.	Felicitous	Infelicitous	Can I have that? I need it.	Can I have that? I don’t really need it.	Come here. I want to show you something.	Come here. There’s nothing over here.	Stop that! It hurts	Stop that! I like it.	Put the car here. It goes in the garage.	Put the car here. It belongs over there.	Help me with this. I can’t do it.	Help me with this. I can do it myself.
Felicitous	Infelicitous												
Can I have that? I need it.	Can I have that? I don’t really need it.												
Come here. I want to show you something.	Come here. There’s nothing over here.												
Stop that! It hurts	Stop that! I like it.												
Put the car here. It goes in the garage.	Put the car here. It belongs over there.												
Help me with this. I can’t do it.	Help me with this. I can do it myself.												
PASSING RESPONSE	The child gives some indication of realizing the infelicity of the anomalous requests by refusing to comply, saying “that’s silly.” The child who has a solid knowledge of the felicity conditions for requests should recognize more than half of the infelicitous requests.												

PROCEDURE
3.11



Recognizing Polite Requests

DEVELOPMENTAL LEVEL	36–84 months
LINGUISTIC LEVEL	Discourse
LINGUISTIC STIMULI	Requests of varying levels of politeness
RESPONSE TYPE	Contrived—judgment
MATERIALS	<ul style="list-style-type: none">• Puppets• Pieces of candy
PROCEDURE	<ol style="list-style-type: none">1. Explain to the child that the puppets would like to get some candy, and the child should only give candy to those who ask nicely. If the puppet does not ask nicely, the child can tell the puppet to “ask nicer.”2. Have the puppet ask for the candy with requests of varying degrees of politeness, such as: Give me candy! I want candy. Can I have some candy? Would you give me some candy?3. After each response, have the child decide whether the puppet asked nicely. If so, the child may give it candy. If not, the child should tell the puppet to “ask nicer.”4. Have the puppet ask for the candy again. Second requests should vary as to whether or not they are more polite than the first.5. Have the child judge if the second request is nicer or not. (The child should also receive some candy at some point in the procedure.)6. Using a score sheet like the one on page 134, record the child’s judgment as nice or not nice. Indicate whether the child’s judgment is correct or incorrect. Enter the second request given and the child’s response to it (nicer or not nicer). Record whether the child’s response is correct or incorrect.
PASSING RESPONSE	If the child recognizes increments in politeness accurately more than 60% of the time, this skill can be seen as acquired.

PROCEDURE
3.12



Responding to Requests for Clarification

DEVELOPMENTAL LEVEL	36–84 months
LINGUISTIC LEVEL	Discourse
LINGUISTIC STIMULI	Requests for clarification (e.g., What? A what?)
RESPONSE TYPE	Natural—answers to questions
MATERIALS	<ul style="list-style-type: none">• Toys or picturebooks• Tape recorder and cassettes
PROCEDURE	<ol style="list-style-type: none">1. Engage the child in a conversation around a set of toys or a picturebook.2. At appropriate points, interject “What?” or “A what?” as requests for clarification of the previous utterance.3. Tape record conversation for later analysis.4. Analyze the conversation. To do this, you can either transcribe the entire conversation from the cassette tape to document each request and response, or you may listen to the cassette tape and record the child’s responses on a score sheet like the one on page 135. Transcription is more time consuming but provides exact data. Listening and recording responses is more efficient but provides more general data.
PASSING RESPONSE	By age 3, typically developing children distinguish between nonspecific requests for complete repetition of an entire utterance (“What?”) and requests for specific constituents within the utterance (“A what?”). Correction responses include repeating the whole utterance in response to “What?” and supplying only the constituent requested in response to “A what?” Children over a developmental level of 3 years should respond appropriately to most requests for clarification.

PROCEDURE
3.13



Making Inferences in Discourse

DEVELOPMENTAL LEVEL	36–84 months
LINGUISTIC LEVEL	Discourse
LINGUISTIC STIMULI	Simple “stories” about a set of toys
RESPONSE TYPE	Contrived—object manipulation
MATERIALS	<ul style="list-style-type: none">• Toys involved in the stories (e.g., toy rabbit, dishes)
PROCEDURE	<ol style="list-style-type: none">1. Tell a series of simple stories such as the following: Story 1 Rabbit’s friends had a picnic for him. The picnic was in the woods. Where did Rabbit go? Story 2 Mary was hungry. She went to McDonald’s. What did she do there? Story 3 The treasure was in the chest. The chest was buried under a great oak tree. Was the treasure buried? Where? Story 4 Jim was cold. He went to his closet. What did he get?2. Ask the child to answer an inference question about each.3. If the child does not respond to a question, probe further using simple literal comprehension questions (e.g., “Who had a picnic for Rabbit?”).4. Record the child’s responses on a score sheet like the one on page 136.
PASSING RESPONSE	The child makes an appropriate inference at least 50% of the time.
DIAGNOSTIC NOTE	If the child responds correctly to the literal questions but not the inference questions, there may be an inability to draw an inference. If the child does not respond or responds incorrectly to the literal questions, a more pervasive comprehension problem may be present.

FOR USE WITH
PROCEDURE:
3.2



SCORE SHEET

Assessing Contingent Responding

Instructions: In the left column, tally the adult's utterance. Then put a check in one of the columns to the right to indicate whether the child produced a contingent (C) response, a noncontingent (NC) response, an imitative (I) response, or no response (NR). Compute the percentage of contingent and imitative responses and compare these figures to the data on the next page.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Adult's utterance	Child's response			
	C	NC	I	NR

Scoring key: C = Contingent response
NC = Noncontingent response
I = Imitative response
NR = No response

Computations:

Percentage of times child's response is contingent:

$$\begin{aligned} & \text{_____} \quad \text{Number of contingent child responses} \\ \div & \text{_____} \quad \text{Total number of adult's utterances} \\ = & \text{_____} \quad \text{Percentage of contingent child responses} \end{aligned}$$

Percentage of times child's response is imitative:

$$\begin{aligned} & \text{_____} \quad \text{Number of imitative child responses} \\ \div & \text{_____} \quad \text{Total number of adult's utterances} \\ = & \text{_____} \quad \text{Percent of imitative child responses} \end{aligned}$$

Average distribution of topic continuations in children's utterances

Average age (months)	Average MLU	Contingent responses (%)	Imitative responses (%)	Total contingent + imitative responses (%)
21	1.26	21	18	39
25	2.60	33	6	39
36	3.98	46	2	48
46	4.45	96	2	98

Source: Bloom, Rocissano, & Hood (1976).

FOR USE WITH
PROCEDURE:
3.3



SCORE SHEET

Assessing Comprehension of Two- and Three-Word Instructions with Toys as Agents

Instructions: In the left column, list the stimulus items to be administered by the adult. In the middle column, record the child's response using the scoring key below. In the right column, notes may be made about the child's response; for example, if in response to "horse eat" the child picks up the toy horse and flies it around the room, a note should be made that the child selected the correct agent.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Adult's utterance	Child's response	Notes about child's response
horse eat		
cow drink		
doll kiss comb		
horse eat spoon		

Scoring key: + = Correct response
 - = Incorrect response
 NR = No response
 IN = Inappropriate response

FOR USE WITH
PROCEDURES:
3.4 3.5 3.6

SCORE SHEET

Assessing Comprehension of Locatives

Instructions: For each locative word (e.g., *in*), record in the box corresponding to the trial a ✓ for a correct response, an X for an incorrect response, or NR for no response. If you choose to assess locatives with Procedure 3.4, use the Search Task grid to record responses. If you choose Procedure 3.5 or 3.6, use the Placement Task grid. (Only one of these procedures is needed to assess locative comprehension for any given child. Choose the procedure that best seems to address the child's abilities and interests.) If the child's response is incorrect, note the number of the preposition that indicates the child's response. For example, if in the Placement Task the child was told to place the object *beside* the mailbox and he or she placed it *in* the mailbox, record X1 in the box for that trial. Later, review these responses for patterns of response strategies. If there is no response, this should *not* be recorded as an incorrect response. Normative data are provided below for comparative purposes.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



	Search Task Trials									Placement Task Trials								
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
1. In																		
2. On																		
3. Under																		
4. Behind																		
5. In front of																		
6. Beside																		

Percentage correct scores for two age groups on placement and search tasks for locatives

Locative	30 months		
	Placement	Search	Combined
In	87.5	83.3	85.4
On	62.5	58.3	60.4
Under	50.0	70.8	60.4
Behind	4.2	33.3	18.8
In front of	8.3	37.5	22.9
Beside	0.0	0.0	0.0
Locative	42 months		
	Placement	Search	Combined
In	100.0	100.0	100.0
On	95.8	100.0	97.9
Under	79.2	83.3	81.3
Behind	58.5	66.7	62.5
In front of	70.8	87.5	79.2
Beside	37.5	50.0	43.8

Source: Hodun (1975).

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FOR USE WITH
PROCEDURES:
3.8 3.9



SCORE SHEET

Assessing Answers to Questions

Instructions: This form provides spaces to record responses for as many as four trials per question type entry. More trials may be used, if necessary, by photocopying this form. Fewer than four trials may be used, but a minimum of two is recommended. The scoring key below should be used to code the child's responses. If the child responds inappropriately (e.g., *IN* is entered for response), make notes about the child's response(s) in the right column. These notes will enable you to determine how the child is interpreting specific question types and which response strategies he or she is using. For example, a child who consistently answers "why" questions as "what" questions may be using a "supply the missing information" response strategy. Knowing this can be helpful in planning intervention.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Question type	Age of mastery	Trials				Notes on child's response
		1	2	3	4	
Yes/no	2.0+					
What?	2.6+					
What (X) doing?	2.6+					
Where (place)?	2.6+					
Where (direction)?	2.6+					
Whose?	3.0+					
Who?	3.0+					
Why?	3.0+					
How many?	3.0+					
How?	3.6+					
How much?	4.0+					
How long (duration)?	4.0+					
How far?	4.0+					
How often?	4.6+					
When?	4.6+					

Based on Chapman (1973).

Scoring key: + = (Semantically) correct response
 - = (Semantically) incorrect response
 NR = No response
 IN = Inappropriate response

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FOR USE WITH
PROCEDURE:
3.9



SCRIPT SCORE SHEET

Question Comprehension: Structured Format

Instructions: This score sheet has been developed for the example script known as "The Car Story." For each question below, categorize and record the child's response in the correct column under scoring key. Remember that the child's response does not have to be strictly true to be recorded as correct. What is important is that the child give the correct type of answer.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Script entry	Scoring key			
	Correct motor response	Correct verbal response	Incorrect response	No response
1. <i>Is this a dog?</i> (no) It's pretty. It's a car. Look it goes, Vroom! Vroom!				
2. It can go here. (on table) It goes fast. Bye-bye car. <i>Where is it going?</i> (Place in garage of dollhouse)				
3. Let's give Mommy a ride. Here she goes. <i>Who is in the car?</i> Bye-bye, Mommy.				
4. Give me the toy. (Clinician places Mommy doll in bed.) <i>Where is she?</i> Mommy is tired. Mommy is going to bed.				
5. <i>What is Mommy doing?</i> (sleeping) Sh. Be very quiet. Don't wake Mommy. Here comes Daddy.				

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Script entry	Scoring key			
	Correct motor response	Correct verbal response	Incorrect response	No response
6. Daddy wants supper. Let's find something to eat. <i>Where is Daddy going?</i> (Clinician moves Daddy doll toward kitchen.) Sit down here, Daddy.				
7. Daddy's finished eating. That was good. <i>Who is eating?</i> Let's go for a walk.				
8. Daddy has a doggie. Here's the doggie. <i>Whose doggie?</i> The doggie is tired.				
9. Here is the ball. Let's play ball. It's red. <i>What is it?</i>				
10. Here comes doggie. Doggie says bow-wow. Doggie has two friends. <i>How many friends?</i>				
11. Look at Daddy (Clinician moves Daddy doll in walking fashion.) <i>What is Daddy doing?</i> Hurry up, Daddy. Sit down.				
12. <i>Who sits down?</i> Daddy's in the chair. Daddy reads the book Here comes Mommy.				

Script entry	Scoring key			
	Correct motor response	Correct verbal response	Incorrect response	No response
13. Mommy says Hi. <i>Whose book?</i> It's a storybook.				
14. <i>Whose is it?</i> (Point to child's shoe) See my watch. My watch goes tick, tick. It's round.				
15. I like toys. <i>Is Mommy here?</i> Stand up. Sit down.				
16. Here are the blocks. (Clinician dumps blocks on table.) Oh look. <i>How many?</i> Let's put the key away.				
17. Here is something It's red. It's square. <i>Is it a block?</i>				
18. <i>How many?</i> (Clinician adds blocks.) I'll put one here and here (builds tower) Push them down.				
19. Look at this. (Clinician gets a truck.) See it go. <i>What is this?</i> (truck) Vroom. Vroom.				
20. Put the blocks in the truck. Watch the truck. (Clinician moves the truck.) <i>What is it doing?</i> It can go fast.				

FOR USE WITH
PROCEDURE:
3.9



SCRIPT SCORE SHEET

Question Comprehension: Structured Format

Instructions: This score sheet has been developed for the example script known as "The Cookie Monster Story." For each question posed to the child, record the child's response verbatim in the third column.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Action of puppets	Question to child	Child's response
Grunge hits Cookie Monster with a stick.	What is Grunge doing?	
Grunge hits Cookie Monster with a stick and says "I want your cookies."	How is Grunge hitting Cookie Monster?	
Grunge alternately hits Cookie Monster and Cookie Monster's cookies. Cookie Monster alternately cries "Ouch" when hit and "Oh, my poor cookies" when they are being hit. Narrator: Oh, no! Grunge is still <i>hitting</i> . Boy is he mean.	Why is Grunge hitting Cookie Monster?	
Grunge alternately punches Cookie Monster and throws rocks at him. Cookie Monster alternately cries "Ouch, mean Grunge" and "Ouch, Ooooo those rocks."	Who is hitting Cookie Monster?	
	What is hitting Cookie Monster?	

Action of puppets	Question to child	Child's response
Cookie Monster retreats and hides under a box.	Where is Cookie Monster hiding?	
	Why is Cookie Monster hiding?	
Cookie Monster comes out of hiding and grabs the stick and starts hitting Grunge.	What is Cookie Monster doing?	
Cookie Monster hits Grunge with a stick, simultaneously saying, "I want my cookies back."	How is Cookie Monster hitting Grunge?	
	Why is Cookie Monster hitting Grunge?	
Cookie Monster alternately hits Grunge and Grunge's toy car. Grunge alternately cries "Ouch" when hit and "Oh, my poor car" when it is hit. Narrator: "Cookie Monster is hitting now."	Who is Cookie Monster hitting?	
	What is Cookie Monster hitting?	
Cookie Monster alternately hits Grunge and throws rocks at him. Grunge alternately cries "Ouch, mean Cookie Monster" and "Ouch, Ooooo those rocks."	Who is hitting Grunge?	
	What is hitting Grunge?	
Grunge retreats and hides under a box.	Why is Grunge hiding?	
Cookie Monster gets back his cookies.	Where is Grunge hiding?	

FOR USE WITH
PROCEDURE:
3.10



SCORE SHEET

Understanding of Preparatory and Sincerity Conditions for Speech Acts

Instructions: For each stimulus item, record the child's response in the third column. Then, mark in the fourth column whether the child's response is correct (✓), incorrect (X), or if no response (NR) is given. In the final column, observations may be recorded. These may include a questioning facial expression accompanying no response, which might indicate partial comprehension. Such indications could suggest speech acts that would be good first targets for intervention planning because the child has partial knowledge about them.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Stimulus item	Correct response	Child's response	Correct?	Comments
<i>Can I have that? I need it.</i>	Felicitous			
<i>Come here. I want to show you something.</i>	Felicitous			
<i>Can I have that? I don't really need it.</i>	Infelicitous			
	Infelicitous			
	Felicitous			
	Felicitous			
	Infelicitous			
	Felicitous			
	Infelicitous			
	Infelicitous			

FOR USE WITH
PROCEDURE:
3.11



SCORE SHEET

Recognizing Polite Requests

Instructions: In the first column, record the adult's first request. In the second column, record the child's response of "nice" or "not nice." Then indicate whether the child's response is correct (✓), incorrect (X), or if no response (NR) is given. For each incorrect response, make a second request of the child and record it in the column labeled as such. Mark the child's judgment and whether it is correct (✓), incorrect (X), or if no response (NR) is given.

Child's name: _____
 Child's chronological age (years.months): _____
 Date: _____



First request	Child's judgment	Correct?	Second request	Child's judgment	Correct?
Give me candy!					
I want candy.					
Can I have some candy?					
would you give me some candy?					

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FOR USE WITH
PROCEDURE:
3.13



SCORE SHEET

Making Inferences in Discourse

Instructions: In the second column, record the child's response to each question. In the third column, indicate whether the child's response was correct (✓) or incorrect (X). If the child gave no response (NR), probe by asking some simple literal comprehension questions (e.g., "Who had a picnic for Rabbit?"). If the child responds correctly to these literal questions, the NR entries can be interpreted as an inability to draw an inference. If the child does not respond or responds incorrectly to the literal questions, a more pervasive comprehension problem may be present.

Child's name: _____

Child's chronological age (years.months): _____

Date: _____



Questions	Child's response	Inference correct?
<i>Story 1</i>		
Question 1		
Question 2		
Question 3		
<i>Story 2</i>		
Question 1		
Question 2		
Question 3		
<i>Story 3</i>		
Question 1		
Question 2		
Question 3		
<i>Story 4</i>		
Question 1		
Question 2		
Question 3		
<i>Story 5</i>		
Question 1		
Question 2		
Question 3		
<i>Story 6</i>		
Question 1		
Question 2		
Question 3		

Scoring key: ✓ = Correct response
X = Incorrect response
NR = No response

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