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PARENTS' USE AND CHILDREN'S UNDERSTANDING OF NONCONVENTIONAL INDIRECT DIRECTIVES

Iowa State University Ph.D. 1980

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Parents' use and children's understanding of nonconventional indirect directives

by

Mimi Cobb Milner Elrod

A Dissertation Submitted to the Graduate Faculty in Partial Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY

Major: Child Development

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TABLE OF CONTENTS

INTRODUCTION 1
   Theoretical framework 3
   Need for the study 8
   Statement of the purpose 9

REVIEW OF LITERATURE 11
   Parents' requests and children's responses 11
   Processes involved in understanding indirect directives 25
   Conclusion 29

METHODOLOGY 31
   Purpose 31
   Subjects 31
   Instruments 31
      Nonconventional indirect directive comprehension assessment 32
      Scoring of the nonconventional indirect directive comprehension assessment 35
      Request Questionnaire 36
      Scoring of the request questionnaire 37

   Procedure 38
   Statistical analysis 39

RESULTS 40

DISCUSSION 50
   Children's understanding of nonconventional indirect directives 50
   Parents' use of directives and perceptions of compliance 53
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limitations of the study</td>
<td>56</td>
</tr>
<tr>
<td>Implications for future research</td>
<td>57</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>59</td>
</tr>
<tr>
<td>REFERENCE LIST</td>
<td>61</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>64</td>
</tr>
<tr>
<td>APPENDIX A. Nonconventional indirect directive comprehension assessment</td>
<td>65</td>
</tr>
<tr>
<td>APPENDIX B. Request Questionnaire</td>
<td>114</td>
</tr>
<tr>
<td>APPENDIX C. Letter to Parents</td>
<td>131</td>
</tr>
</tbody>
</table>
INTRODUCTION

Fundamental to the interaction among individuals is verbal communication. Among other functions, language serves to establish and maintain social relations allowing individuals to ask and answer questions, to convey ideas, and to accomplish goals. In examining the verbal interactions between parents and their young children one notes that utterances of parents are primarily used to make requests of their young children (Newport, Gleitman, and Gleitman, 1977). Parents do not exchange a great deal of information with young children, but frequently are trying to persuade their children to drink their juice, put on their boots, or clean up their rooms. Thomas Gordon, author of Parent Effectiveness Training (1970), has suggested that parents not make explicit demands of their child but simply state the facts about a situation and let the child decide what action to take. For example, if a child comes to the door wearing muddy shoes and his/her mother has just cleaned the floor, the mother might say "I just mopped the floor" rather than "Take off your muddy shoes". Here the parent wants the child to act in a particular way, but instead of stating the solution to the problem, the parent merely states what the situation is. Hopefully the child will take responsibility for his/her actions and respond to the situation appropriately (e.g., taking off his/her shoes). For Gordon this approach is more suitable than telling the child what the parent wants done, for it promotes a
feeling of mutual respect and equality. Ervin-Tripp (1977) notes also that restraint in mentioning what is wanted is used by adults quite frequently to leave the choice to understand up to the hearer as a form of deference.

Often there is not an isomorphic relationship between the form of an utterance and the function of that utterance in adult speech. For example, requests frequently are made by using the interrogative form rather than the imperative. Moreover, directives are not consistently marked in our language. There are many ways in which one can make a request. For example, in the army one might hear "Take your feet off the desk, Private", while in a home one is more apt to hear "Would you mind taking your feet off my desk?" Because of conventions of politeness, one hears the latter type of request far more frequently than the former. On the basis of observations and analyses of transcripts of adult speech, Ervin-Tripp (1977) has categorized six kinds of utterances which are used as requests or directives, i.e., utterances which serve to elicit goods or services or to regulate the behavior of others. They are as follows:

1. Personal needs or desire statements - "I need a match."
2. Imperatives - "Give me a match."
3. Permissive directives - "May I have a match?"
4. Imbedded imperatives - "Could you give me a match?"
5. Question directive - "Have you got a match?"
6. Hints - "The matches are all gone." (Ervin-Tripp, 1977)
Even though the sentences of Ervin-Tripp are all normally considered directives, with the exception of the sentence "Give me a match" (number 2), the sentences themselves do not have an imperative force as part of their meaning. Syntactically they are not of the imperative form. Moreover, the sentences vary on the obviousness of the directive. In some, the imperative is clear with the action desired and agent of action mentioned, while in others neither the action nor agent of action is included.

A significant issue to be raised is whether or not young children have the cognitive capacity to understand indirect directives. Despite the fact that one may want to promote a feeling of mutual respect and equality or to refrain from mentioning what is wanted out of deference to the other, one nevertheless must ask if a young child is capable of comprehending such messages. One might wonder if parents even use such indirect messages with young children. It has been demonstrated that parents frequently make requests of their children. However, if they use directives which are beyond the level of understanding of their child, it is unlikely that their request will be effective.

Theoretical framework

The sentence examples (with the exception of sentence 2) of Ervin-Tripp represent what Searle (1971) refers to generally as an indirect speech act and particularly as an indirect directive. According to Searle there is a distinction between what a sentence
means and what the speaker means in uttering it. The speech act or illocutionary act is what the speaker means in uttering it. For Searle, speaking a language is performing speech acts, acts such as making statements, asking questions, making promises, stating one's feelings or making requests. Searle (1975) delineated five categories into which all speech acts would fall: 1) representatives, in which a speaker asserts, states a belief, hypothesizes, or suggests; 2) directives, in which the speaker tries to get the listener to do something; the speaker may do this through questions by which s(he) gains information or through requests; 3) commissives, through which the speaker commits himself/herself to a future action; 4) expressives, in which the speaker expresses his/her "feelings" or psychological state; and 5) declarations, in which a speaker by only uttering the words brings about a new state of affairs—"You're fired". Thus, according to Searle when one performs a speech act or illocutionary act the purpose of the act is entailed in one of the above five categories. But often in speaking the speaker means what s(he) says but also means more. For example, in saying "I want you to take your feet off my new desk," the speaker is making an assertion but at the same time is primarily making a request. There are two meanings which are not part of the sentence meaning, a literal meaning which in this case is an assertion, and a nonliteral meaning which in this case is a request. Thus there are two speech acts. According to Searle, this type of utterance, where one kind of speech act is performed indirectly by
way of performing another, is called an indirect speech act. Thus, indirect speech acts always have two meanings, a literal and a non-literal or an indirect meaning. The examples of Ervin-Tripp cited previously, all have a literal meaning which follows directly from the literal meaning of the sentence. The nonliteral meaning, the request, is added only by virtue of the speaker's meaning, which does not change the literal meaning. Therefore, according to Searle, responses that are appropriate to the literal meaning (or direct speech act) are appropriate to the indirect speech act utterances as well. For example, "Can you stop tilting in the chair?" could be answered with "Yes, I can" with no move to do so.

One might ask why individuals would want to say one thing and mean another. Gordon (1970) has asserted that it helps the parent-child relationship for the parent to make requests indirectly; it fosters a feeling of mutual respect and equality. Searle (1971) argues in a similar vein that we do this because of conversation requirements of politeness. He explains that it would be awkward to issue a flat imperative sentence, "Leave the room" or "I order you to leave the room". Therefore, Searle contends, we look for an indirect means to our illocutionary ends and say "I wonder if you would mind leaving the room".

One also might wonder how a hearer understands the indirect speech act when the sentence s/he hears means something else. Moreover, how can a child possibly know that when an adult says "Tilting in the chairs will break them" the adult is really re-
questing, even demanding that the child not tilt in the chair. Clark & Clark (1977) have suggested that the listener goes through a certain process (termed the utilization process) in determining the meaning of an utterance when a sentence is direct. An even more complicated process is required in deciphering the meaning of indirect directives or requests, particularly if the action and agent of action are not mentioned. Thus, for example, when a person hears a sentence such as "This box is heavy" and the speaker is asking for help in lifting it, the hearer must go through certain steps in deriving the speaker's meaning. Searle's answer to the question of understanding lies basically in his assertion that when one uses indirect speech acts one is relying on one's own and the listener's mutually shared background information, both linguistic and nonlinguistic, along with the general powers of rationality and inference on the part of the hearer. Searle (1975) has delineated 10 steps through which one goes in understanding the speaker's meaning.

It appears that Searle's method of understanding is similar to Grice's (1975) cooperation principle. Grice explains that often speakers imply or suggest something in uttering a sentence distinct from what is said. He refers to this as conversational implicatures. For example A says, "I am thirsty"; B replies, "There is a water fountain on the 2nd floor." B is implying more than his/her words say. S(he) is telling A how to alleviate his/her thirst. A accepts
this as a proper response to his/her remark (as most others would). Individuals' exchanges with each other generally do not consist of disconnected remarks. People generally act on this fact of connectedness and also recognize that most exchanges have a common purpose and mutually accepted direction. They also operate on the fact that at certain times some "conversational moves" would be acceptable while others would be unacceptable. (It would be unacceptable for example, for B in the conversation cited above to say "There is a blackboard on the second floor.") This notion of cooperation between speaker and listener is what Grice has called the cooperation principle. Thus, when X says to Y "Tilting in the chairs will break them" X is operating on the cooperation principle in expecting Y to understand that X is requesting him/her not to tilt in the chairs. But do children operate on this principle?

Both Grice (1975) and Searle (1971) then, suggest that in human exchanges both speaker and listener understand that sometimes meaning will go beyond words. Individuals can have these exchanges because they are cooperating. They presumably have shared background information, linguistic and nonlinguistic, which allows them to look for meaning beyond words.

In focusing on what he considers to be the central question of language, i.e., how people understand what is said to them, Morgan (1978) suggests that much of the process involved is not linguistic but is applying to linguistic problems our ability to
infer what the speaker's intentions were in saying what s(he) said. He further asserts that in deciphering what is meant by an utterance, a language learner must try to make a connection between what is uttered and the occasion and/or purpose of the utterance.

Thus, in regard to indirect speech acts Searle (1971), Grice (1975), and Morgan (1978) would agree that understanding the speaker's meaning generally depends on a careful reading of the nonlinguistic context and then making a subtle inference about the speaker's intention. Understanding then requires an intersection of social and linguistic competence. If these theorists and researchers are accurate, one might speculate as to whether or not a young child can understand an indirect directive. Is it likely that a young child can go beyond the words s(he) hears and look to the intention of the speaker to understand what the sentence means.

Need for the study

In considering these postulated processes (Grice, 1975; Morgan, 1978; Searle, 1971, 1975) involved in deciphering the meaning of indirect speech acts in conjunction with our present understanding of children's egocentric thought, one might wonder if children can understand indirect requests similar in kind to those that Gordon (1970) suggests, i.e., those which simply state what the situation is. Based on research we do know that parents make requests of
their children, but how best can those requests be made? Research (Carrell, 1979; Holzman, 1972; Shatz, 1977a, 1977b, 1979) answering this question is scarce, and what exists generally has not focused on the less explicit kind of indirect requests, for example that which omits the action desired and the agent of action. Where research has dealt with indirect directives of the less explicit type (Ackerman, 1978) methodological problems are present. Because a large proportion of utterances of parents to their children are requests and because research has not provided us with precise information regarding children's understanding of various kinds of requests, the present study examines parent's use and children's understanding of indirect requests that omit the action desired and the agent of the action: nonconventional indirect directives.

**Statement of the purpose**

The primary purpose of the present research is to investigate children's responses to nonconventional indirect directives, parents' use of nonconventional indirect directives and the relationship between the two. Of secondary interest are: 1) the relationship between parents' perception of children's compliance with requests and children's responses to nonconventional indirect directives, 2) the relationship between the sex of the child and the type of directives parents use to make requests of their children, and 3) the relationship between the sex of the parent and the type of directives parents use to make requests of their children.
The specific null hypotheses to be tested are:

1. There is no difference in young children's understanding of non-conventional indirect directives and conventional directives.

2. The difference in understanding the two types of directives, conventional directives and nonconventional indirect directives, does not decrease with age.

3. Children's understanding of nonconventional indirect directives is not a function of sex.

4. Children's understanding of nonconventional indirect directives is not related to the type of directives parents' use to make requests of their children.

5. Children's understanding of nonconventional indirectives directives is not related to parents' perception of children's responses to requests.

6. The type of directive used in making requests of children is not related to the sex of the child.

7. The type of directives used in making requests of children is not a function of the sex of the parent.

The operational definitions used in the current investigation are:

1. Young children are children who are between the ages of 3 and 6.

2. Directives are utterances which break topical continuity in discourse and serve to elicit goods or services or regulate the behavior of others. Directives can be one of two types;
   a. Nonconventional indirect directives (NID) are indirect directives (directives which are not of the imperative form) which omit the desired action and agent of action.
   b. Conventional directives (CD) are directives of the imperative form and of the indirect form which contain the desired action and agent of action.

3. Understanding directives refers to interpreting the utterance as a request and responding appropriately. On Task 1 understanding is demonstrated if the child's response can be categorized as Intention, Consequence, or Delayed Intention. On Task 2 understanding is demonstrated if the child chooses the nonliteral alternative of the three possible drawings.
REVIEW OF LITERATURE

The review of literature will include research relating to:
1) ways in which parents make requests of children and children's responses to various forms of requests, and 2) processes by which indirect directives are understood.

Parents' requests and children's responses

In examining how mothers make requests of their young children, Bellinger (1979) delineated five classes of directives:

1. Conventional imperative - This type of directive possesses imperative syntax and includes that the child be the agent.
2. Intermediate interrogative - The syntactic simplicity of the conventional imperative is combined with the rising intonation of interrogatives in these directives.
3. Full interrogative - Here the content is imbedded in a question about the task at hand or the child's ability; explicit reference is made to act although the mood is interrogative.
4. Declarative - This type of directive names the act to be performed but does not request that it be the child who does it, e.g., "The blocks need to be picked up."
5. Implied type - Here the surface form encodes an argument relating to why a particular act should or should not be performed, but fails to state explicitly what the act is or who the agent of the action is. The force is not simply the relationship between the expressed content and its context of delivery, but between the deduced content and the context in which the expressed content is delivered.

These directives differ in how obviously directive they are. Bellinger proposed a cumulative relationship among the directive classes based on the degree to which the various indirect forms simply resemble conventional imperatives in terms of certain surface properties: i.e., how they varied in terms of imperative
syntax, response demandingness, and explicitness of the statement in terms of the action desired.

Bellinger conducted his research assuming that the conventional imperative is the most basic form of directive and that recognition of this form would appear early in language acquisition. He also assumed that a young child's interpretation of an utterance as a request depends on how similar the utterance is to a conventional imperative. Bellinger had two specific interests. One was whether or not the explicitness of mothers' directives change as the child gets older. The other was whether or not the change would be from resemblance to conventional imperatives, to a disappearance of those properties responsible for resemblance (imperative syntax, response demandingness, and implied action).

Bellinger (1979) observed 40 mother-child pairs in a 30-to-60 minute play situation. The children were divided into four age groups, 1.0, 1.8, 2.3 and 5.0 years. In the play situation the tasks presented were too difficult for the children to perform independently, necessitating the wide use of directives on the part of the mothers. One hundred utterances per mother were analyzed and the illocutionary force determined. If the utterance were a directive, then it was assigned to one of the five classes of directives. Reliability for deciding if the utterances were directives and for assigning the utterances to a class was 85.3% and 98.7% respectively. Bellinger found that one third of the utterances
were directives and that the percentage of directives decreased with the age of the child and decreased significantly (p<.05) between 2.3 and 5.0 years of age.

His results also indicated that the frequencies of both conventional imperatives and intermediate interrogatives generally decreased as the children got older while the frequencies of both declarative and implied directives increased over the same period. The frequency of full interrogatives first increased and then decreased. Thus, with an increase in age, forms which are less obviously directive were used more frequently. Bellinger (1979) also found a decrease in the frequency with which mother's directives retained at least imperative syntax between the ages of 1.0 and 1.8 years; the frequency remained relatively stable thereafter. Directives which were at least response demanding were stable between 1.0 and 1.8 years of age, decreased between 1.8 and 2.3 years and continued to decrease between 2.3 and 5.0 years. Only after the children reached 2.3 years did mothers' directives omit the desired act. Thus, the order in which the properties began to disappear from mothers' directives was as predicted. Mothers' first indirect directives lack only the simple imperative syntactic form and continue to be response demanding and to name the desired act. It is only later that these other surface structures disappear.

Bellinger (1979) urges that mothers' choice of expression may at first be based on cognitive ability. However, once the child
obtains the necessary cognitive ability, the style of the mother is influenced by social factors which structure the situation.

In examining the type of directives adults use in discourse with young children Hickmann and Wertsch (1978) found that the explicitness of directive did not depend on the age of the child or on perceived linguistic ability. These researchers observed the use of directives in the transition from other-to self-regulation over the course of a single interaction session which was a task oriented situation. They observed two mother child pairs. In one pair the child was 4½ years old; in the other the child was 2½ years old. On the basis of the mother-child verbal interaction, Hickmann and Wertsch argue that the child's understanding of the ongoing activity including the role s/he is expected to play, influences the mother's choice of directive. Thus, the greater the understanding of the activity and the role, on the part of the child, the less explicit the directive. In addition, these researchers conclude that a common definition of the task situation is necessary for inferring the speaker's intention which in turn is necessary for interpreting less explicit indirect directives.

Holzman (1972) investigated the use of mothers' interrogatives. Her sample included three mothers and their children. Holzman found that mothers rarely use the interrogative to request behavior of young children (six times out of 100 utterances) but do use the interrogative to make suggestions such as "Why don't you show Fraser
horsie, Eve?" Holzman also reports that the children whose Mean Length Utterance (MLU) is 2 - 4 words do not misinterpret these kinds of suggestions. However, when one mother in Holzman's sample says "May I have coffee with Fraser?" and the investigator glosses it on the basis of context as "Don't bother me while I'm having coffee," the mother's statement appears to be a request and a strong one. To draw the conclusion that mothers do not make requests of their children by using interrogatives seems erroneous.

Unlike Holzman, Shatz (1977a) reports that mothers of children 18-24 months do indeed use interrogatives to make requests of their children. Shatz (1977b) also investigated indirect directives or requests by focusing on children's comprehension of that kind of request. Comprehension was demonstrated by responses to these requests. Her subjects were three middle-class children, one of whom was a girl. The ages of the children were 2.0, 2.3 and 2.4 years with a MLU of 2.7, 2.1, and 4.3 words, respectively. The data were collected in a naturalistic setting (the home) while the mother and child played together. The interaction between mother and child was recorded on video tape and later transcribed along with an account of nonverbal behaviors. Shatz categorized the child's responses to imperatives and questions judged to be directives in the following way:

1. Appropriate—Attempt to carry out requested act; act not necessarily accomplished but evidence of understanding need for action. Any accompanying verbal response which is not contradictory to directive interpretation.
2. Literal—A verbal response appropriate syntactically to question without any attempt to carry out requested act.

3. Negative—
   (a) Verbal no without any attempt at action.
   (b) Nonverbal refusal: turning away, throwing toys, etc.

4. Indeterminate—
   (a) Verbalization unintelligible or action is incomplete.
   (b) Child does required action but appears to have begun to act before request.
   (c) Contradictory: a verbal no accompanied by an attempt at the act.

5. Request for clarification—No action but verbal response, usually a repetition of part of mother's utterance with a question intonation.

6. Ignoring—Mother's utterance ignored; no evidence it was processed or even heard.

7. Looking—Attending to mother, may handle toys but does nothing to indicate understanding of utterance (Shatz, 1977b).

The scores for the three children were grouped together. Appropriate responses were made to 52% of all question directives spoken to the children and 40% of the imperative directives (the difference between the two was not significant). Literal responses (with no attempt to do the required action) were made 9% of the time to question directives.

Several questions which might be raised in regard to Shatz's investigation were answered by Shatz herself. For example, one might ask if the appropriate action and agent of action were stated in the questions of the mothers. In the question "Can you wipe up that water?" this is clearly the case, whereas in the question "Is there water on the floor?" the desired action and agent of action
are missing. Shatz argues that the explicitness with which the required action was stated did not influence the rate of appropriate responding since approximately the same amount of appropriate responses was made to explicit and implicit requests. In addition, 40% of the questions from the mothers in this sample were of the less explicit kind. Unlike Bellinger (1979), Shatz is not completely explicit herself about how much information, i.e., action, agent of action, and object, is contained in the less explicit questions. There appears to be variation in the amount of information given in these less explicit questions.

Shatz was also interested in nonverbal cues used by the mothers. While nonverbal cues were used widely, they were used more with the youngest child (75% of the time) than with the oldest child (20% of the time). However, nonverbal cues were used with imperatives "about as often" (1977a, p. 43) as they were used with question directives. (It is not clear exactly what "about as often" means.) Repeating the request in imperative form after the request was made in an interrogative form did not affect the children's responses to directives.

Shatz (1977b) replicated her study with younger children using a boy age 1.7 years with a MLU of 1.0 word and a girl age 1.8 years with a MLU of 1.8 words. The findings were similar to those of the first investigation. Appropriate answers were given to 38% of the imperatives and 34% of the question directives. No question direc-
tives were answered literally. Nonverbal cues were used extensively, 87% of the time with question directives and 100% of the time with imperatives. Shatz reports that within the category of appropriate response to an uncued question directive, the correct response was given only once by each child.

Other questions which Shatz does not raise perhaps should be asked. For example, her interpretations of the responses of the children with a MLU of less than 2 words are rather liberal. Only 34% of the children's responses to question directives were answered correctly. That does not appear to be a very high percentage. Furthermore, despite the fact that the children responded appropriately to indirect requests as often as they did to imperatives, they more often responded inappropriately to both. And even though it is difficult to say at exactly what point a child has or does not have an ability, one could not unequivocally say that these young children completely understood question directives or even responded correctly to them. Other criticisms of Shatz are that her sample was very small, as was Holzman's, and that the indirect directives were all question directives which are generally more explicit than other types of indirect directives or requests. In addition, Shatz's definition of directives—"suggestions, explicit or implicit that the child perform an act different from the one he was performing at the time of the utterance" (Shatz, 1977b, p.41)—seems narrow in that it does not include requests to stop an ongoing ac-
activity or behavior.

What Shatz has tried to demonstrate through both studies is that mothers do use questions to make requests and that children do respond as appropriately to question directives as they do to imperatives. While Shatz emphasizes that children do have the ability to respond appropriately to question directives, she does not argue that this ability is linguistically based. Shatz explicitly states that she would not try to explain the responses of the children in terms of Searle's (1975) model. Rather, she suggests that the child is acting on a discourse rule which is action oriented, e.g., mother says, child acts. She further suggests that this "rule" is motivated by the child's desire to maintain contact with his/her mother in order to keep the conversation going.

Shatz also gives support to this notion of orientation toward action rather than linguistic sophistication when she refers to an earlier study (1977a) of her own in which young children responded to the ill-formed question "May you shut the door?" by shutting the door and to questions like "Can you jump?" by jumping. Again the notion of the young child's proclivity to act instead of talk is supported. In other words, very young children most likely respond to question directives not because they go through a process such as Searle (1975) describes or because they know that sentence meaning can differ from speaker meaning but rather on the basis of act unless given a reason not
to. In addition, one must keep in mind that interrogatives whether denoted by word order or intonation imply a response. Therefore, Shatz's research may inform us that mothers do use question directives to request behavior of their children and that children act when mothers speak. However, her research does not provide precise information about children's understanding of indirect directives.

In a later investigation, Shatz (1979) examined function in mothers' questions and children's responses to these questions. For Shatz, function refers to the purpose the speaker intends the utterance to serve in the conversation. Shatz speculated that for children who are learning their language, mothers would express relatively few functions through questions and broaden the range of functions their questions express as their children understood them. Her subjects included 17 white middle class mothers and their children age 18-34 months. The dyads were divided into two groups. In one group (N=9) the children had average utterance lengths of two words or less and in the other group (N=8) three or four words. The children and their mothers were videotaped at their homes in a natural play situation for approximately 15 minutes.

Interrogatives comprised 44% of all the 1,142 utterances, and served as the data base. These utterances were coded into 11 functional categories. The children's responses to all the questions were rated as to their functional appropriateness in the conventional context. Appropriateness was indexed by an
awareness of speaker intention which in turn was based on action on the part of the child. Basing the child's awareness of speaker intention on his/her action, produces the same problems found in Shatz's (1977a, 1977b) earlier research.

While there was no difference between the two groups of mothers in the number of functions expressed by interrogatives, the mothers of the children with fewer words used questions significantly more often to request action (p<.05) than did the mothers of the children with more words. The latter group used questions significantly more to request information (p<.01), to request clarification, (p<.01), and to challenge the child (p<.05). The directives were answered about equally as well for both groups, 56% for the children with three or four words and 47% for the other group. Moreover, the children with two words or less responded appropriately more often to directives than to any other kinds of questions (p<.01).

Despite the fact that Shatz's (1979) research somewhat supports the notion that young children understand question directives, the evidence she has given is not compelling.

Carrell (1979) focused specifically on children's understanding of various forms of indirect directives. Her subjects were 100 4-, 5-, 6-, and 7-year old children. Each child was given one sheet of paper on which were drawn 20 uncolored circles. The children were told to color the circles as requested. The four
groups of children were read 10 pairs of positive and corresponding negative requests (20 sentences), one pair being direct and the remaining pairs indirect. The first member of a pair always conveyed a positive request to color a circle either blue or red, e.g., "I would love to see the circle colored red," or "Why not color the circle red?" The second member always conveyed a negative request to color the picture the opposite color, e.g., "I would hate to see the circle colored red" or "Why not color the circle blue?" No time limit was imposed in regard to coloring the circles.

Results indicated that each age level performed significantly better than the next lower age level (p<.01). In addition, each negative request was significantly more difficult (p<.05) than its positive counterpart. It also was determined that certain pairs were more difficult than others, especially for the younger children. For example, "I'll be happy unless ..." and "I'll be sad unless ..." were especially difficult across age levels. In addition, difficulty was seen where there was contradiction of polarity between the literal meaning and the indirect meaning. For example in "Should you color the circle blue?" the literal meaning is positive while the indirect or conveyed meaning is negative. On the other hand in "Shouldn't you color the circle blue?" the literal meaning is negative and the conveyed positive.

Based on Carrell's research it appears that while young children can understand indirect directives, acquisition occurs develop-
mentally and understanding depends on the type of indirect directive used in making requests. However, Carrell's research does not give us information about indirect directives which omit both the action desired and the agent of the action.

Ackerman (1978) examined indirect directives which do not encode the action desired or agent of action and often not the object of the action. He refers to these indirect directives as unconventional indirect speech acts. His subjects included 12 first-grade children, 12 third-grade children and 12 college students who were read short paragraphs containing a target utterance that was an indirect directive, e.g., "It's ten o'clock." The paragraphs either biased the subject toward a literal reading of the utterance (here a statement about the time of day) or an extraliteral reading (that a child, for instance, should prepare for bed). According to Ackerman, in order to make an extraliteral interpretation, the subject had to infer the intent of the speaker.

After the paragraphs were presented, the subjects were asked to respond "yes" or "no" to three questions. One question represented a literal interpretation of the paragraph, one an extraliteral interpretation, and one was simply a distractor. The subject was told that s(he) might answer "yes" to more than one of the questions.

In his conclusion, Ackerman reports that children as young as six years of age are capable of interpreting correctly the conveyed
meanings of unconventional indirect directives. However, based on Ackerman's results, it is not entirely clear how he can draw such a conclusion. First, an ANOVA demonstrated that first graders made significantly more (p<.01) "yes" responses that did adults. This suggests perhaps that the six-year-olds were not completely clear about the meaning of the utterances. An analysis of simple effects also demonstrated that first-grade children did not contribute to the context-by-interpretation type variance, while both adults and third-grade children contributed significantly (p<.01). Thus the first-grade children's interpretations were not contextually sensitive in contrast to the responses of the third-grade children and adults. In other words, first-grade children made an extraliteral interpretation as often in a literal context as an extraliteral context and a literal interpretation as often in an extraliteral context as a literal one.

The data also yielded a significant grade-by-interpretation type interaction (p<.01). Third-grade children responded "yes" to more extraliteral than literal choices across both literal and extraliteral contexts while the number of extraliteral and literal interpretations did not differ for the other grades. Judging from a few examples of the paragraphs presented and the possible responses from which the subjects could choose, it appears that the extraliteral option involved action while the literal option involved a verbal response. It is possible that the third-grade children were
simply choosing the action oriented response.

Finally, Ackerman's research could be criticized in that there seems to be no uniformity or control in regard to the amount of clues given in the context, clues which are, of course helpful in interpretation. Although it cannot be denied that six-year-old children can understand indirect directives which do not encode the action desired or agent of the action, Ackerman's research fails to confirm that they can. Verbal presentation, as opposed to a visual presentation of the paragraphs, may have affected the responses of the six-year-old children in the study. In any case, Ackerman's conclusions appear ill formed upon careful scrutiny of his results.

Processes involved in understanding indirect directives.

Although Bellinger (1979), Hickmann and Wertsch (1978) and Holzman (1972) have examined mothers' use of indirect directives, and Shatz (1977a, 1977b, 1979) and Ackerman (1978) have investigated children's responses to indirect directives, none of these researchers have specifically examined the processes involved in understanding indirect directives. However, the processes through which one goes in deciphering the meaning of indirect directives have been explored. The subjects in each investigation have been adults. Using a model similar to Searle's (1975), Clark and Lucy (1975) attempted to determine if in fact individuals proceed through a process such as the one Searle describes. The model they used was that of Gordon and Lakoff (1971) which was comprised of three steps. The
listener must: 1) compute the literal meaning of the sentence, 2) perceive the context, and 3) come up with a so-called conversation-
al postulate to deduce the meaning the speaker must have intended in that context. Clark and Lucy presented 23 undergraduates with a display which had 10 sentences on the left side, e.g., "Can you color the circle blue?" and 10 circles on the right side which were colored blue or pink. The subjects then had to judge whether or not the circle on the right had been colored correctly according to the request on the left. Their judgements were timed. The requests were direct and indirect negative ("Why not color the circle blue?") and indirect positive ("Can you color the circle blue?")

Their results generally support the model of Gordon and Lakoff (1971). The subjects did in fact understand the indirect or conveyed meanings. In addition, because it took the students longer to decide on the correctness of the color using the interrogative form than with the declarative form, the authors argue that one does first construct the literal meaning and then goes on to understand the indirect meaning. However, the difference in time could be the result of the test situation. In a naturalistic situation if X says "Must you shut the door?" Y hears the tone of voice of X, sees the door shut, and most likely knows immediately that X wants the door to be left open. The nonlinguistic context can be crucial. In addition, one might wonder if Clark and Lucy's findings could have been the result of sentence complexity and length of sentence. Both
of these factors contribute to the time factor which Clark and Lucy assert demonstrates that the listener goes through the process described by Gordon and Lakoff (1971).

On the basis of research (Clark and Lucy, 1975) and theories (Searle, 1971), Clark and Clark (1977) argue that computing indirect meaning involves four major steps:

1. Compute the direct meaning of the utterance.
2. Decide if this meaning is what was intended. Are there sufficient and plausible reasons for the speaker to have intended to convey this meaning, or this meaning alone in this context?
3. If not, compute the indirect meaning by way of the cooperative principle and the conventions on speech acts.
4. Utilize the utterance on the basis of its indirect meaning.

It appears that what Clark and Lucy (1975) postulated earlier was refined by Clark and Clark.

However, Clark (1979) again examined the process through which one goes in responding to an indirect directive, specifically question directives. He explains that in a question directive, such as "Can you pass the salt?" the hearer can respond to the literal meaning or the question, or the hearer can respond to the indirect meaning which in this case is a request. According to Searle, (1975), the speaker means both meanings, the literal and the indirect meaning. Clark, however, asserts that the hearer may respond to the literal and indirect meanings differently depending on the situation and the way in which the question is phrased. The hearer must decide how seriously the speaker intended the question and how seri-
ously the speaker intended the request. In the question "Can you
tell me the time?" the hearer can respond with "Yes" which would
be a response simply to the question, with "Yes, it is six" which
would be a response to both the question and the request, or with
"Six" which would answer the request only. Clark refers to these
responses respectively as answer alone, answer plus information,
or information alone. Clark then proposed a response model which
reflects the level of probability that the hearer's response is to
the question or to the request.

Clark conducted five experiments in which 950 merchants in the
San Francisco area were contacted by telephone. The caller made a
single request a merchant would expect to deal with by phone, e.g.,
"Are you open after six?" The utterance of the caller could be an­
ered as a question, or as a request. The merchants' responses
were recorded verbatim and the probability level of the response
being a literal or nonliteral one was computed. Clark's hypothesis
was confirmed.

He found that there are several significant factors which serve
as sources of information in determining if an utterance is more a
request than a question. For example, Clark found that convention­
alcy of the utterance was critical. If a merchant was asked
"Could you tell me what time you close tonight?" he was signifi­
cantly more likely (p<.002) to reply as if the question were a re­
quest than if asked "I was wondering whether you close before seven
tonight?"

Clark also found that merchants respond to an utterance as a request significantly more (p<.05) if: 1) the form is conventional, 2) special markers such as please are used, 3) the indirect meaning is transparent, 4) the literal meaning is implausible and 5) the speaker's imputed plans and goals imply a request is being made. Thus when Clark's subjects heard the utterances, certain sources of information were used in deciding if the utterance were a question or a request, some linguistic and some nonlinguistic. The situation and the way in which the question was phrased contributed to the interpretation.

Clark then rejects the earlier model of Clark and Lucy (1975) contending that it is misleading. First, it treats conventional indirect requests like "Can you tell me the time?" as if they were idioms such as "How do you do". It also assumes that in indirect speech acts the literal meaning is never intended to be taken seriously. Furthermore, it only deals with the fifth source of information cited above, the plausibility of the literal meaning. Clark further argues that the earlier model suggested that one computes the literal meaning first and then proceeds, whereas in reality the opposite could be true. Thus, computing the literal and indirect meanings is part of a single package.

Conclusion

In conclusion, based on the research of Bellinger, (1979)
Hickmann and Wertsch (1978), Holzman (1972) and Shatz (1977a, 1977b) it appears that mothers do use indirect directives with their pre¬school-age children. Moreover, according to Bellinger mothers use indirect directives which omit the action desired and agent of ac¬tion with children as young as 2.3 years. Holzman (1972) and Shatz (1977a, 1977b, & 1979) have concluded that children as young as 18 months can understand question directives. In addition, Ackerman (1978) argues that even six-year-old children can understand indi¬rect directives which omit the action desired and the agent of the action. However it must be noted that: 1) Holzman and Shatz have looked at only one type of indirect directive (question directives) and have not included fathers in their investigations; 2) the re¬search of Holzman, Shatz, and Ackerman has methodological problems; and 3) the subjects have been adults in research (Clark & Lucy, 1975; Clark, 1970) which examines processes involved in understanding in¬direct directives. Our information regarding children's under¬standing of indirect directives is lacking. More research in this area of communication is definitely needed to deal with these issues.
METHODOLOGY

Purpose

The primary purpose of this research study was to investigate children's understanding of nonconventional indirect directives, parents' use of nonconventional indirect directives and the relationship between the two. Of secondary interest were: 1) the relationship between parents' perception of children's compliance with requests and children's responses to nonconventional indirect directives, 2) the relationship between the sex of the child and the type of requests parents make; and 3) the relationship between the sex of the parent and the type of requests parents generally make.

Subjects

Subjects for the study were 25 girls and 23 boys ranging in age from 38.0 to 75.0 months with a mean age of 52.7 months and their parents. The children were enrolled in the Iowa State University Child Development Laboratory. Of the 72 potential subjects there were 24 children who did not qualify for the final sample for one of the following reasons: 1) parental consent was not given, 2) English was not the primary language spoken in the home, or 3) the child was physically or mentally handicapped.

Instruments

Two instruments were used in the present study. The Nonconventional Indirect Directive Comprehension Assessment was developed to assess children's understanding of nonconventional indirect directives. The Request Questionnaire was developed to assess parents'
use of nonconventional indirectives and their perception of their children's responses to requests. Reliability and validity have not as yet been established for either of these instruments.

The Nonconventional Indirect Directive Comprehension Assessment (NIDCA). The NIDCA is comprised of 16 short stories depicted in cartoon form. Central to each of the short stories is an interaction in which a parent makes a request of a child. Combinations of sex of parent and sex of child are equally represented.

Four drawings are presented with each short story, one large drawing (8 x 11 inches) depicting the situation, and three smaller drawings (4 x 8 inches) representing responses that the story child might make to the parent's request. Visual presentation is deemed necessary because of the relatively young age of the subjects.

Several criteria were used in determining the specific situational contexts of the interactions. The situations: 1) had to be familiar but not routine for most 3-to 6-year-old children, 2) could not compel a child to alter her/his behavior independent of the story parent's making a verbal request of the child, and 3) could not involve physical danger to the story child. In regard to the requests used, the request had to be one with which most 3-to 6-year-old children could comply and one that would not go beyond the appropriate age expectations of a 3-to 6-year-old child.

Of the three possible responses of the story child, one drawing demonstrates compliance, while two demonstrate noncompliance. Two

\[1\] The cartoons were drawn by Lynn Graham, Iowa State University, Department of Child Development.
response choices demonstrate noncompliance so that understanding of the request of the story parent can be inferred from the choice of the compliance alternative on the part of the story child. To control for a response bias toward action, all choices included physical action on the part of the story child. Careful control in regard to the clues given in the situations, age appropriateness of the requests made by the story parents, and delimiting the possible responses of the story child should allay problems encountered in Ackerman's (1978) and Shatz's (1977a, 1977b, 1979) research.

The short stories are randomly divided into two groups, 8 stories each, A and B, and presented under one of four conditions. In the first condition, the subject is presented the stories in Group A with the parent using a nonconventional indirect directive to make a request followed by stories in Group B with the parent using a conventional directive to make a request. Under the second condition, the subject is presented stories A with the parent using a conventional directive, and then stories B with the parent using a nonconventional indirect directive. Under the third condition, the subject is presented the stories in Group B first with the parent using a nonconventional indirect directive, followed by the stories in Group A with the parent using a conventional directive. In the fourth condition, the B stories are presented first, with the parent using a conventional directive followed by the stories in Group A with the parent using a nonconventional indirect directive to make the request (see Figure 1). The order of presentation of the sto-
ries within each condition is constant. Each child is randomly assigned to a condition and then tested individually.

![Diagram of order of presentation of stories under four conditions.](image)

The experimenter presents each of the 16 stories to the subject along with the larger cartoon drawing. S(he) completes the story by having the story parent make a request of the child using a nonconventional indirect directive or a conventional directive. S(he) then says,

"Why did s(he) say that?"

If the child's response does not include the intention of the story parent or indicate an understanding that a request is being made, the experimenter then says,

"Why does s(he) want (story child's name) to know that?"

Next, the experimenter says,

"Let's see what you think (story child's name) will do. Put your finger on the picture that shows what you think (story child's name) will do."
The child can then choose one of the three smaller pictures (see Appendix A). The order of presentation of the three smaller pictures is counterbalanced through the use of a Latin Square.

**Scoring of the NIDCA.** The children's understanding of non-conventional indirect directives is based on the responses to the two questions asked at the completion of each short story (Task 1) and on the subject's choice of the drawing representing what action the story child takes (Task 2).

The responses to the questions 1) "Why did s(he) say that" and 2) "Why did s(he) want (story child's name to know that?" (Task 1) are categorized and scored as follow:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>The child responds to the utterance as a request, focusing on the intention of the parent. After the first question is asked, the child states what the parent wants of the child, (e.g., &quot;He wants her to put on her coat&quot;).</td>
<td>1</td>
</tr>
<tr>
<td>Consequence</td>
<td>The child responds to the utterance of the story parent as a request but does not mention the intention of the parent. After the first question or both questions are asked the child mentions the result or consequence of compliance or noncompliance, (e.g., &quot;The floor would get dirty if they walk on it&quot;) or indicates a reason why the parent would have made the request, (e.g., &quot;The mom just washed the floor&quot;).</td>
<td>2</td>
</tr>
<tr>
<td>Delayed intention</td>
<td>The child attributes intention to the parent only after the second question &quot;Why does s(he) want (story child's name) to know that?&quot; has been asked.</td>
<td>3</td>
</tr>
</tbody>
</table>
Literal

The child responds to the parent's utterance literally. The child simply repeats the content of the story parent's statement. The child's words may be the same or different from the story parents, (e.g., "The cookies are for the guests").

Other

The child's response is: 1) indistinguishable, 2) one which does not relate to the question, 3) "I don't know, or 4) silence.

The children's choice of one of the three cartoon drawings representing actions the story child might take (Task 2) are categorized and scored as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonliteral</td>
<td>The child chooses the story child's action which demonstrates compliance with the request of the story parent. This choice indicates interpreting the utterance as a request.</td>
<td>1</td>
</tr>
<tr>
<td>Literal</td>
<td>The child chooses the story child's action which demonstrates noncompliance with the request and includes a literal response which may be verbal or nonverbal.</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>The child chooses the story child's action which demonstrates noncompliance but does not include a literal response.</td>
<td>3</td>
</tr>
</tbody>
</table>

Two scores for each child are derived by adding the scores for the responses on each of the two tasks.

Request Questionnaire

The Request Questionnaire (RQ) is a paper and pencil questionnaire which includes the 16 short stories used in the NIDCA. However, only the larger cartoons representing the situations are included and on each is typed an explanation of the situation. For each situation the parent is asked two ques-


tions. One determines whether the parent usually uses a nonconventional indirect directive or a conventional directive in making requests. The other determines the parent's perception of the child's responses to requests (see Appendix B).

**Scoring of the RQ** The parents' responses to the question determining the type of directive usually are categorized and scored as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonconventional</td>
<td>Indirect directives (directives which are not if the imperative form) which omit the desired action and agent of action.</td>
<td>1</td>
</tr>
<tr>
<td>Indirect Directives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional</td>
<td>Directives of the imperative form and of the indirect form which contain the desired action and agent of action.</td>
<td>2</td>
</tr>
<tr>
<td>Directives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The parents' responses to the question determining their perception of their child's responses to requests (How do you think your child would respond to your request?) are categorized and scored as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance</td>
<td>The parent indicates that the child would comply. This category includes the story child's asking for an alternative to his/her behavior, (e.g., &quot;Where can I sit?&quot;) or asking for help in complying.</td>
<td>1</td>
</tr>
<tr>
<td>Probable</td>
<td>The parent indicates that the child might comply, or sometimes complies. This category also includes verbal bargains, (e.g., I will put the blocks away when I finish).</td>
<td>2</td>
</tr>
</tbody>
</table>
Indeterminable The parent indicates a response by the child in which it is difficult to tell whether or not the child complies. These are often verbal and include an explanation by the child of the ongoing activity, (e.g., "I am looking for my truck.") or simply "Why" on the part of the child.

Noncompliance The parent clearly indicates noncompliance on the part of the child.

Two scores for each parent are derived by adding the scores for the responses on each of the two questions.

Procedure

Parental consent to allow the children to participate and willingness to respond to the questionnaire were obtained from parents using a letter sent home through the teachers of the children (see Appendix C).

Each child was tested individually on the NIDCA and both parents of each child were sent the RQ. All sessions with the children were tape recorded and later transcribed. For 10 of the 48 subjects two judges independently transcribed the tapes. A reliability score of .99 was obtained for the transcribing. To insure reliability in coding the responses to the NIDCA and RQ, two independent judges coded responses for 10 of the 48 subjects and their parents. Intercoder reliability for the children's and parent's responses were .93 and .89 respectively.

A partially balanced incomplete block design with three factors -- the two tasks required of the children, the order of presentation of the stories and two types of directives, and the interaction be-
between the two—was used in the present study.

**Statistical analysis**

In determining whether the child's response to the story parent's utterance is a function of the type of directive, age, or sex, an analysis of variance was used. The between individual variability was divided into five sources: sex, age, condition, and the interaction between sex and condition and individual differences within these sources ($\text{Error}_1$). The within individual variabilities were directive type, and the interactions of this source with those named above. The dependent variables are the two scores derived from the two tasks.

For each parent there are also two variables: one derived from the score based on the type of directive the parent usually uses and one derived from the score based on the parent's perception of the child's responses to requests. A Pearson Product Moment Correlation was used to examine the following relationships:

1. Between parents' use of nonconventional indirect directives and the children's understanding of nonconventional indirect directives.
2. Between parents' perception of children's responses to requests and children's understanding of nonconventional indirect directives.
3. Between child's sex and the type of directive parents use in making requests.

To determine if the type of directive used is a function of sex of parent a matched-pairs $t$ test was employed.

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$^2$Dr. Leroy Wolins, Iowa State University Department of Statistics, served as the statistical consultant for the present study.
RESULTS

The present investigation examined children's understanding of nonconventional indirect directives, parents' use of nonconventional indirect directives and the relationship between the two. It also examined: 1) the relationship between parents' perception of children's compliance with requests and children's responses to nonconventional indirect directives, 2) the relationship between the sex of the child and the type of directives parents use to make requests of their children, and 3) the relationship between the sex of the parent and the type of directives parents use.

The first null hypothesis that there is no difference in young children's understanding of nonconventional indirect directives and conventional directives fails to be rejected. The analysis yields no significant main effect for directive type. The children responded equally well on both tasks regardless of whether conventional or nonconventional indirect directives were used (see Tables 1 & 2).

The second null hypothesis that the difference in understanding the two types of directives does not decrease with age can be rejected. The analysis yields a significant age effect ($p<.05$) for both tasks of the NIDCA but no significant interaction between directive type and age on either task (see Tables 1 & 2). Thus the older children respond more appropriately to both tasks using both types of directives. However, the younger children, as well as the older,
TABLE 1
ANOVA of scores (N=48) derived from Task 1 of NIDCA

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>30.66</td>
<td>30.66</td>
<td>.13</td>
</tr>
<tr>
<td>Condition</td>
<td>3</td>
<td>2183.34</td>
<td>727.78</td>
<td>3.06*</td>
</tr>
<tr>
<td>Sex X Condition</td>
<td>3</td>
<td>1159.38</td>
<td>386.46</td>
<td>1.62</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>3788.48</td>
<td>1849.24</td>
<td>7.95*</td>
</tr>
<tr>
<td>Error₁</td>
<td>38</td>
<td>9051.57</td>
<td>238.20</td>
<td></td>
</tr>
<tr>
<td>Within Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directive Type</td>
<td>1</td>
<td>37.99</td>
<td>37.99</td>
<td>.05</td>
</tr>
<tr>
<td>Sex X Directive Type</td>
<td>1</td>
<td>282.35</td>
<td>282.35</td>
<td>3.85</td>
</tr>
<tr>
<td>Condition X Directive Type</td>
<td>3</td>
<td>510.01</td>
<td>170.00</td>
<td>2.34</td>
</tr>
<tr>
<td>Sex X Condition X Directive Type</td>
<td>3</td>
<td>23.05</td>
<td>7.68</td>
<td>.10</td>
</tr>
<tr>
<td>Age X Directive Type</td>
<td>2</td>
<td>6.57</td>
<td>3.35</td>
<td>.05</td>
</tr>
<tr>
<td>Error₂</td>
<td>38</td>
<td>2784.75</td>
<td>73.28</td>
<td></td>
</tr>
</tbody>
</table>

aNIDCA - Nonconventional Indirect Directive Comprehension Assessment.

*p < .15.

respond as well to nonconventional indirect directives as to conventional directives. Mean responses to the directives on both tasks are given in Table 3.

A Pearson Product Moment Correlation also yields significant relationships between: 1) age and scores derived from Task 1 using nonconventional indirect directives (r=−.37, p<.01), 2) age and scores derived from Task 1 using conventional directives (r=−.35, p<.05), 3) age and scores derived from Task 2 using nonconventional
TABLE 2
ANOVA of scores (N=48) derived from Task 2 on NIDCA

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>16.59</td>
<td>16.59</td>
<td>.49</td>
</tr>
<tr>
<td>Condition</td>
<td>3</td>
<td>24.76</td>
<td>8.26</td>
<td>.25</td>
</tr>
<tr>
<td>Sex X Condition</td>
<td>3</td>
<td>77.88</td>
<td>25.96</td>
<td>.77</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>282.20</td>
<td>141.10</td>
<td>4.19*</td>
</tr>
<tr>
<td>Error₁</td>
<td>38</td>
<td>1277.67</td>
<td>33.62</td>
<td></td>
</tr>
<tr>
<td><strong>Within subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directive Type</td>
<td>1</td>
<td>.36</td>
<td>.36</td>
<td>.03</td>
</tr>
<tr>
<td>Sex X Directive Type</td>
<td>1</td>
<td>1.31</td>
<td>1.31</td>
<td>.11</td>
</tr>
<tr>
<td>Condition X Directive Type</td>
<td>3</td>
<td>68.10</td>
<td>22.70</td>
<td>1.82</td>
</tr>
<tr>
<td>Sex X Condition X Directive Type</td>
<td>3</td>
<td>20.56</td>
<td>6.85</td>
<td>.55</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>1.43</td>
<td>.72</td>
<td>.06</td>
</tr>
<tr>
<td>Error₂</td>
<td>38</td>
<td>474.01</td>
<td>12.47</td>
<td></td>
</tr>
</tbody>
</table>

\(^{a}\)NIDCA - Nonconventional Indirect Directive Comprehension Assessment.

\(^{b}\)p < .05.

indirect directives (r=.51, p<.01), and 4) age and scores derived from Task 2 using conventional directives (r=.40, p<.01) (see Table 4).
TABLE 3
Mean scores (N=48) on Task 1 and Task 2 of NIDCA as a function of Directive Type

<table>
<thead>
<tr>
<th>Directive Type</th>
<th>Task 1</th>
<th>Task 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NID\textsuperscript{b}</td>
<td>2.78</td>
<td>1.49</td>
</tr>
<tr>
<td>CD\textsuperscript{c}</td>
<td>2.85</td>
<td>1.51</td>
</tr>
</tbody>
</table>

\textsuperscript{a}NIDCA Nonconventional Indirect Directive Comprehension Assessment.
\textsuperscript{b}NID Nonconventional Indirect Directives.
\textsuperscript{c}CD Conventional Directives.

The children also were divided into two age groups and responses to the tasks when nonconventional indirect directives were used were tabulated. The percentages of responses that fall into one of five categories for Task 1 and one of three categories for Task 2 are presented in Tables 5 & 6. The largest percentage of responses for both older and younger children fall into the category called consequence on Task 1. These responses are very similar to those one would give to a conventional directive.
TABLE 4

Correlation Coefficients (N=48) between sex, age, Task 1 using NID, Task 1 using CD, Task 2 using NID, Task 2 using CD, mothers' directives (MD), mothers' perceptions (MP), fathers' directives (FD), fathers' perceptions (FP)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sex</th>
<th>Age</th>
<th>Task 1 NID</th>
<th>Task 1 CD</th>
<th>Task 2 NID</th>
<th>Task 2 CD</th>
<th>MD</th>
<th>MP</th>
<th>FD</th>
<th>PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>-06</td>
<td>.00</td>
<td>.20</td>
<td>.11</td>
<td>-14</td>
<td>-07</td>
<td>-01</td>
<td>.05</td>
<td>.30*</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.37**</td>
<td>-.35*</td>
<td>-.51**</td>
<td>-.40**</td>
<td>-.05</td>
<td>-.34*</td>
<td>-.18</td>
<td>-.32*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 1 NID</td>
<td>.61**</td>
<td>.07</td>
<td>.17</td>
<td>-.08</td>
<td>.12</td>
<td>-.03</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 1 CD</td>
<td>-.03</td>
<td>.04</td>
<td>-.26</td>
<td>.11</td>
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<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 2 NID</td>
<td>.55*</td>
<td>.06</td>
<td>.16</td>
<td>-.02</td>
<td>.04</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Task 2 CD</td>
<td>.08</td>
<td>.20</td>
<td>-.10</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MP</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FD</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

aNID Nonconventional Indirect Directives.

bCD Conventional Directives.

*p<.05.

**p<.01.
### TABLE 5

Percentages of responses ($N=48$) to Task 1 using NID\(^a\) in each category as a function of age

<table>
<thead>
<tr>
<th>Categories</th>
<th>Intention</th>
<th>Consequence</th>
<th>Delayed Intention</th>
<th>Literal</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger(^b)</td>
<td>8.7</td>
<td>45.1</td>
<td>1.6</td>
<td>9.2</td>
<td>35.3</td>
</tr>
<tr>
<td>Older(^c)</td>
<td>20.0</td>
<td>55.0</td>
<td>1.5</td>
<td>5.0</td>
<td>18.5</td>
</tr>
</tbody>
</table>

\(^a\)NID Nonconventional Indirect Directives.

\(^b\)Younger < 53 months.

\(^c\)Older ≥ 53 months.

### TABLE 6

Percentages of responses ($N=48$) to Task 2 using NID\(^a\) in each category as a function of age

<table>
<thead>
<tr>
<th>Categories</th>
<th>Nonliteral</th>
<th>Literal</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger(^b)</td>
<td>61.5</td>
<td>20.8</td>
<td>17.7</td>
</tr>
<tr>
<td>Older(^c)</td>
<td>78.6</td>
<td>8.3</td>
<td>13.0</td>
</tr>
</tbody>
</table>

\(^a\)NID Nonconventional Indirect Directives.

\(^b\)Younger < 53 months.

\(^c\)Older ≥ 53 months.
Other interesting significant relationships are seen. The correlational analysis yields a significant relationship between the scores derived from Task 1 using nonconventional indirect directives and Task 1 using conventional directives ($r = .61, p < .01$). Moreover, a significant relationship exists between scores derived from Task 2 using nonconventional indirect directives and Task 2 using conventional directives ($r = .55, p < .05$) (see Table 4). Furthermore, there is no relationship between the two scores on the two tasks. Thus, the measurement of the two constructs, understanding nonconventional indirect directives and understanding conventional directives, displays neither discriminant nor convergent validity, but rather a substantial amount of method bias (Campbell and Fiske, 1959).

The third null hypothesis that children's understanding of nonconventional indirect directives is not a function of sex fails to be rejected. There is no significant sex effect between subjects or interaction with other sources in regard to either task on the NIDCA (see Tables 1 & 2). In addition there is no significant correlation between sex of the children and responses to the two tasks on the NIDCA (see Table 4).

A Pearson Product Moment Correlation also was used to examine the relationships in the fourth, fifth, and sixth null hypotheses: 4) Children's understanding of nonconventional indirect directives is not related to the type of directive parents' use to make requests of their children, 5) Children's understanding of nonconventional
indirect directives is not related to parents' perception of children's responses to requests, 6) the type of directive used in making requests of children is not related to the sex of the child. These null hypotheses fail to be rejected.

The seventh null hypothesis that the type of directive used is a function of the sex of the parent can be rejected. The $t$ test of the two means of the parents' responses to the first question on the RQ yields a $t$ test of 2.42 which is significant ($p < .05$).

Significant correlations also exist between mothers' perception of children's responses to requests and children's age ($r = -.34, p < .05$) and fathers' perception of children's responses to requests and children's age ($r = -.32, p < .05$) (see table 4). Thus, both parents perceive older children as more compliant. Moreover, mothers' perceptions of children's compliance and fathers' perception of children's compliance are significantly correlated ($r = -.43, p < .01$).

A significant correlation also exists between fathers' perception of children's responses to requests and sex ($r = -.30, p < .05$) (see Table 4). Fathers perceive girls as complying with requests more than they perceive boys complying. Furthermore, fathers' perceptions of children's responses to requests are significantly related ($r = -.69, p < .01$) (see Table 4) to the type of directive used by fathers. Thus there is an increase in use of nonconventional indirect directives with an increase in perceived compliance. While mothers' perception of responses to requests does not significantly
correlate with type of directive used, the correlation is in the same direction as the fathers' response (see Table 4).

The percentages of responses that fall into each category on the RQ are presented in Table 7. Of the mothers' responses relating to type of directive used, 27.7% were nonconventional indirect directives and 70.7% were conventional directive. Of fathers' responses, 24.1% were categorized as nonconventional indirect directives while 64.6% were categorized as conventional directives (see Table 7).

**TABLE 7**
Percentages of types of directives used

<table>
<thead>
<tr>
<th>Parent</th>
<th>NID&lt;sup&gt;a&lt;/sup&gt;</th>
<th>CD&lt;sup&gt;b&lt;/sup&gt;</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers</td>
<td>27.7</td>
<td>70.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Fathers</td>
<td>24.1</td>
<td>64.6</td>
<td>11.3</td>
</tr>
</tbody>
</table>

<sup>a</sup>NID Nonconventional Indirect Directives.

<sup>b</sup>CD Conventional Directives.

**Ancillary findings**

The analysis yields a significant condition effect (p<.05) between subjects on Task 1 of the NIDCA (see Table 1). Thus, there are significant differences with respect to the story order, the directive type order, or the interaction between these two sources in regard to the questions asked of the children. However, these order
effects did not interact with other sources. Thus, the significant condition differences are not important and will not be considered further.
DISCUSSION

Children's understanding of nonconventional indirect directives

Based on the current investigation, there is no evidence that there is a difference in the ability required in understanding nonconventional indirect directives or in understanding conventional directives in children between the ages of 3 and 6. No significant main effect for type of directive nor interaction between age and type of directive were found in the present study. The subjects responded as appropriately to nonconventional indirect directives as to conventional directives. Similar to the results found here are those of Shatz (1977b). Using subjects 2.0, 2.3, and 2.4 she found no significant difference in responses to imperative directives and question directives.

It was also found that significant correlations exist between the responses to the questions asked of the children (Task 1) when nonconventional indirect directives and when conventional directives were used and between the responses to the choice of action of the story child (Task 2) when nonconventional indirect directives and when conventional directives were used. Moreover, no relationship exists between the two scores derived from the two types of directives on the two tasks. Thus, there is no evidence for discriminant nor convergent validity for the two constructs, understanding nonconventional indirect directives or understanding conventional directives. The responses seem to depend more on the task used than the type of directive used. The tasks could be
tapping two different abilities, one the ability to reflect on the meaning of an utterance the other simply to act on that utterance. It may be that the tasks do not measure the constructs at all. However, there is at least minimal reliability of the tasks as evidenced by the correlation within the tasks and the correlation between both tasks and age.

Research (Clark & Clark, 1977; Gordon & Lackoff, 1971; Clark & Lucy, 1975) has been conducted to determine the processes involved in understanding indirect requests of various types. While these researchers have basically argued for a process that requires computing the literal meaning first and the indirect meaning second, it seems more plausible to argue as does Clark (1979) that computing the literal and indirect meanings are part of a single package.

Based on the results of the present research, one might speculate that processing indirect requests does not differ greatly from processing direct requests. One simply processes requests. This seems to be the case with the young children in the current study. Perhaps it is the case only for young children and not for adults.

It could also be the case that the situations in this study elicited the responses as much as the directives themselves. In light of Shatz's results and the results of the present study, one might wonder if indeed children glean as much from the nonlinguistic context as they do from the utterance themselves. This notion is given support from Morgan's (1978) assertion that understanding what
one hears, is by no means an exclusively linguistic task. He explains that one must combine the occasion and purpose of the utterance with the utterance itself in order to respond to it appropriately. The words alone may not mean to the child what they do to the adult. Children, then, may put more emphasis on the situation than the utterance when they try to combine the two. Flavell (1978) argues that young children do not reflect on utterances, nor do they realize that an utterance can have more than one meaning. This lack of realization may explain why children respond equally to nonconventional indirect directives and to conventional directives: The young child does not seem to pay much attention to the words but relies heavily on the nonlinguistic context in deciding how to respond. Moreover, because parents do make many requests of children (Newport et al. 1977) it may be the case that when children observe situations involving an interaction between a parent and a child, they expect the parent to make a request.

It also has been argued that inferring the intention of the speaker is necessary in order to respond appropriately to indirect directives of various types (Grice, 1975; Morgan, 1978; Searle, 1971). In the present investigation, however, when nonconventional indirect directives were used, only 8.7% of the responses of the younger children to the questions and 20.0% of the responses of the older children to the questions fell into the category which included explicitly attributing intention to the parent. However, in
regard to the category called consequence, which undeniably demonstrates an awareness that a request has been made, 45.1% of the responses of the younger children and 55.0% of the responses of the older children fell into this category. Of those who seem to understand nonconventional indirect directives, a small proportion explicitly attributed intention. Moreover, in the consequence category are responses which are very similar in kind to the responses one would give to a conventional directive. It appears then that young children can respond appropriately to nonconventional indirect directives without explicitly inferring intention, perhaps without inferring intention at all.

It is not surprising to find a significant main effect for age. It is expected that older children would respond appropriately more often to requests than would younger children. Perhaps it is simply because they are more aware of various situations and what type of responses are considered appropriate in those situations. Hickmann and Wertsch (1978) stressed the importance of understanding the ongoing activity and the definition of the situation in comprehending directives of various types. One would expect older children to be more apt at this ability. Thus, while it appears that younger children use the nonlinguistic context in responding to requests of all types, they do not do it as well as do older children.

Parents use of directives and perceptions of compliance

Despite the fact that Holzman (1972) and Shatz (1977a, 1977b)
found that mothers use question directives with young children and Bellinger (1979) found that mothers use indirect directives which omit the action and agent of action with children as young as 2.3 years, a small percentage of mothers' directives (27.7%) and fathers' directives (24.1%) were found to be nonconventional indirect directives.

However, the data do indicate that mothers use significantly more (p<.05) nonconventional indirect directives than do fathers. It is not surprising that mothers would try to "soften" their imperatives more than would fathers. Research (Elrod & Crase, in press; Hetherington, 1970) has shown that mothers and fathers react differently to their children and that fathers react differently to boys and girls while mothers seem to react nondifferentially. Therefore, it was not unexpected to find that fathers perceptions of girls and boys differ, while mothers' perceptions of boys and girls does not differ.

There were, however, similarities in mothers' and fathers' perceptions. Their perceptions to children's responses to requests were significantly correlated. In addition, both mothers and fathers perceive older children as being more compliant than younger children. Perhaps the basis of this perception is understanding. Parents perceive older children as understanding directives better than do younger children and thus find older children more compliant. Perhaps, however, the relationship is based on parents' perception
of children's self-control. Parents may see older children as having more self control and therefore as being more compliant.

It is interesting to note, however, that while fathers' perceptions of children's responses to requests are significantly (p<.05) related to the type of directives fathers use, mothers' perceptions are not significantly related to type of directive. Fathers use more nonconventional indirect directives as their perception of compliance increases. It is not surprising that as compliance increases, directives would become less explicit. This is indeed what Hickmann and Wertsch (1978) found. What is somewhat unanticipated is that this would be the case for fathers in the present study but not for mothers. While mothers' and fathers' perception regarding compliance is similar, except with respect to perceived sex differences their behavior based on these perceptions differs. It is possible that because mothers use more nonconventional indirect directives than do fathers, they do not significantly increase the use with an increase in perceived compliance as do fathers.

In summary, it appears that the parents in this investigation do not use a large percentage of nonconventional indirect directives but that mothers use them more than fathers. In addition, it appears that mothers' and fathers' perceptions regarding compliance in general and with respect to age are similar, but their perceptions of boys' and girls' compliance differ. Moreover, fathers' use of
nonconventional indirect directives increases with a perceived increase in compliance while this relationship is not significant for mothers.

Limitations of the study

Among the limitations of this study are those which are possible in any investigation in which young children serve as subjects. Many of these problems have been discussed by Flavell (1977). For example, one cannot be certain that the child has understood the task required, that is what s/he is being asked to do. Moreover, in addition to the task being examined other skills are required in responding to the target task. For example, the child's verbal ability could be a factor in determining the responses given. Of course the child's motivational level or interest in the task can affect responses also.

The sample in this investigation is derived from a university population. Problems in generalizing to other populations, therefore, exist.

Problems exist also which are particular to the current study. While careful consideration was given to the situations in the short stories, problems nevertheless appeared. For example, in the story involving the plate of cookies an alternative allowing the child to eat a cookie later might have elicited different responses. Thus, the undesirability of some compliance responses might have been attenuated by indicating that the story child would have his/her needs met at a later time.
With respect to the RQ, the question relating to the type of directive used might have included a "both" alternative since many of the parents perceived the nonconventional indirect directives as a reason for the conventional directive. In fact many parents did indicate that they used both. If both choices were indicated, the response would be scored as a conventional directive since the action and agent of action would have been mentioned.

Implications for future research

Gardner, Winner, Bechhofer and Wolf, 1978, found that preschool age children produced more imaginative endings than did elementary-age children and that the elementary-age children resisted endings such as "quite as a magic marker". These researchers speculate that school age is a "literal" stage in the development of children, when they are consolidating the literal meanings of words and the community's definitions of categories. Thus, school-age children are perhaps reluctant to countenance any violations of these recent acquisitions. Gardner et al.'s finding may inform us as to what happens with 3- to 5-year old children when compared with school-age children in regard to nonconventional indirect directives. It is possible that the school-age children might consider the utterances themselves more thoroughly than the younger children. If they are in a "literal" stage of development as Gardner et al. suggest, they might not perform as well on the NIDCA as do the younger
children. Those researchers urge that comprehension in early primary grades is intimately tied to the literal plane and those linguistic uses which do not conform to the most ordinary and established of community practices are rejected as "impossible". It would be of interest to test 6-to 8-year-old children on the NIDCA.

Of interest also would be to determine how much young children rely on the nonlinguistic context as opposed to the utterance itself in deciphering nonconventional indirect directives. It would be possible to use the NIDCA, leave out the requests of the parents, and ask the children what they think the parent is saying and why.

Our knowledge of how individuals come to understand nonliteral language, as well as metaphors, jokes, proverbs, stories and other figurative language is still limited. There is still much work to be done in terms of use and understanding of nonconventional indirect directives.
SUMMARY

The present investigation was concerned with parents' use and children's understanding of nonconventional indirect directives and the relationship between the two.

It was found that children respond as appropriately to nonconventional indirect directives as they do to conventional directives. However, appropriateness of responses to requests increases with an increase in age. In regard to young children, questions were raised with respect to abilities involved in responding appropriately to nonconventional indirect directives specifically. Based on the present study it appears that there is not a separate ability required to understand nonconventional indirect directives as opposed to conventional directives. It appears that young children respond to directives of all types similarly. It is possible that children process directives differently than do adults, perhaps using the nonlinguistic context to a greater extent than do adults.

While the mothers and fathers in the present investigation indicated that they would use relatively few nonconventional indirect directives to make requests, mothers indicated using significantly more than did fathers. Other differences regarding the responses of mothers and fathers were found. Fathers perceived girls as complying to requests more than boys; mothers did not. Fathers also indicated an increase in use of nonconventional indirect directives as their perceptions of compliance increased; mothers did not. Both mothers and fathers perceive compliance to
requests increasing with an increase in age.

No relationship between use of nonconventional indirect directives and children's understanding was found.


ACKNOWLEDGEMENTS

There are many to whom I am grateful for help and support in conducting this research.

I would like to express my gratitude first to my major professor, Dr. Damaris Pease who has given so generously of her time. Her continued support and thoughtful criticisms have been both helpful and meaningful to me.

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The cooperation of the children, parents, and teachers in the Child Development Labs is also appreciated.

I would like to acknowledge also the College of Home Economics for its financial support through the Graduate Student Research Fund. To the faculty and staff of the Child Development Department, I extend my thanks for support given in myriad ways.

To my mother, late father and family for their endless love and faith, to Adam and Joshua who have given so much without realizing it, and to John who out of commitment and love has made it possible for me to complete this task so I can begin another, I am most truly grateful.
APPENDIX A

NONCONVENTIONAL INDIRECT DIRECTIVE COMPREHENSION ASSESSMENT
Mike is looking for his toy truck. He tosses the folded clothes out of the clothes basket searching for his truck.
Mike stops taking the clothes out of the basket.
Mike says, "Oh the clothes are folded," and keeps looking for his truck.

Mike takes all the clothes out of the basket.
Carol has finished getting dressed and has eaten her breakfast. She tells her dad she is going outside to play.
Carol goes and gets her coat and then goes outside.
Carol says, "It is cold outside," and goes outside without her coat.

Carol goes outside to play without her coat.
Betty has been playing with her lego set in the living room. Betty's father comes into the room.
Betty picks up her lego set.
Betty goes to the door to see who the company is.

Betty turns on the T.V.
Bill and his friend are playing. They come into the kitchen for a drink. Bill's mom has been cleaning the kitchen.
Bill and his friend go out of the kitchen.
Bill and his friend come into the kitchen to see how shiny the floor is.

Bill and his friend go to the sink and get their drink.
Phil and his dad get into the car to go to a movie. It begins to rain.
Phil puts his hand out the window to feel the rain.
Phil rolls up the window.

Phil gets out a piece of candy and begins to eat it.
Lisa is washing her doll in the sink. Her dad comes in while Lisa is filling the sink with water.
Lisa turns the water off.
Lisa says, "The water is high," and washes the doll.

Lisa lets the water run down the doll's back.
Sally's and Kathy's moms are talking in Sally's family room. Sally and Kathy come into the room and turn on a story record.
Sally turns the record player down.
Sally says, "The record is loud," and continues to listen to the record.

Sally and Kathy open the record cover to look at the pictures and listen to the record.
Nancy and her father are visiting Nancy's grandmother. Nancy walks toward a small chair to sit down.
Nancy sits in another chair.
Nancy looks at the broken leg and sits down in the chair.

Nancy moves the chair in front of the T.V. and sits down in the chair.
Scott is coloring at the kitchen table. Scott reaches across the table for a cookie.
Scott puts the cookie back.
Scott says, "These are for our guests," and eats one.

Scott puts down the crayons and eats the cookie.
Mark is in his room playing. He has been looking at his books and has taken them all off the shelf. Mark's dad comes in the room.
Mark puts the books back on the shelf.
Mark says, "I saw the books on the shelf," and leaves the room.

Mark begins to build with his blocks.
Susan has been taking her bath and her mom has been helping her. Susan gets out of the tub and starts to go out the door.
Susan comes back into the bathroom and dries off.
Susan says, "The floor is getting wet," and goes into her room.

Susan goes on out the door.
Frank walks into his room. His father is painting the room.
Frank moves away from the wall his father is painting.
Frank touches the wall to see how wet it is.

Frank puts his hand on the wall his father is painting.
Bev is helping her mom make pudding. She starts to climb up on the counter so she can stir the pudding.
Bev gets a chair to stand on and stirs the pudding.
Bev climbs on the counter and says, "The counter is wet."

Bev gets on the counter and begins to stir.
Chad has brought his blocks into the hallway from his room and is building a big tower.
Chad takes his blocks back into his room.
Chad brings out some more blocks to build a bigger one.

Chad adds some more blocks to his tower and says, "The hall is crowded."
Andrew is playing out in the yard and has the sprinkler on. Andrew's dad comes to the window.
Andrew moves the sprinkler away from the house.
Andrew goes inside and looks at the water coming in the window.

Andrew runs through the sprinkler.
Ann has found some old dry playdough in her room and is playing with it.
Ann throws the crumbling playdough away.
Ann says, "The playdough is falling into the rug," and tries to make a ball.

Ann makes a dog out of her playdough.
APPENDIX B
REQUEST QUESTIONNAIRE
Mike is looking for his toy truck. He tosses the folded clothes out of the clothes basket searching for his truck.

a. In telling your child that you don't want to refold the clothes, would you usually say something like
   
   - I just folded those clothes; or
   - Please don't take the clothes out of the basket.

b. How do you think your child would respond to your request?
Carol has finished getting dressed and has eaten her breakfast. She tells her dad she is going outside to play.

a. In letting your child know that he/she needs to wear a coat outside, would you say something like

   ___ It's really cold outside; or
   ___ Please put your coat on.

b. How do you think your child would respond to your request?
Betty has been playing with her lego set in the living room. Betty’s father comes into the room.

a. In letting your child know that the legos need to be picked up, would you usually say something like

   - We have company coming to visit in a few minutes; or
   - Please pick up your legos.

b. How do you think your child would respond to your request?
Bill and his friend are playing. They come into the kitchen for a drink. Bill's mom has been cleaning the kitchen.

a. In letting your child and his friend know that you do not want them to walk on the freshly waxed floor, would you usually say something like

- I just waxed the floor; or
- Please stay out of the kitchen.

b. How do you think your child would respond to your request?
Phil and his dad get into the car to go to a movie. It begins to rain.

a. In letting your child know that the window needs to be rolled up, would you usually say something like
   __ The back seat is getting wet; or
   __ Please roll up the window.

b. How do you think your child would respond to your request?
Lisa is washing her doll in the sink. Her dad comes in while Lisa is filling the sink with water.

a. In letting your child know that the water needs to be turned off, would you usually say something like
   ___ The water is really high; or
   ___ Please turn off the water

b. How do you think your child would respond to your request?
Sally's and Kathy's moms are talking in Sally's family room. Sally and Kathy come into the room and turn on a story record.

a. In letting your child know that the record player needs to be turned down, would you usually say something like
   - The record is loud; or
   - Please turn the record player down.

b. How do you think your child would respond to your request?
Nancy and her father are visiting Nancy's grandmother. Nancy walks toward a small chair to sit down.

a. In letting your child know that he/she should not sit in the broken chair, would you usually say something like
   
   ____ That chair has a broken leg; or
   
   ____ Please do not sit in that chair.

b. How do you think your child would respond to your request?
Scott is coloring at the kitchen table. Scott reaches across the table for a cookie.

a. In letting your child know that he/she should not eat the cookies, would you usually say something like

   __ Those cookies are for your guests tonight; or
   __ Please don't eat the cookies.

b. How do you think your child would respond to your request?
Mark is in his room playing. He has been looking at his books and has taken them all off the shelf. Mark's dad comes in the room.

a. In letting your child know that the books should be put back on the shelf, would you usually say something like
   __ I just put all your books on the shelf this morning; or
   __ Please put the books back on the shelf.

b. How do you think your child would respond to your request?
Susan has been taking her bath and her mom has been helping her. Susan gets out of the tub and starts to go out the door.

a. In letting your child know that he/she needs to dry off before leaving the bathroom would you usually say something like

   __ The floor is getting wet; or
   __ Please dry off before you leave the bathroom.

b. How do you think your child would respond to your request?
Frank walks into his room. His father is painting the room.

a. In letting your child know that the walls should not be touched, would you usually say something like
   - That wall is wet; or
   - Please don't touch the wall.

b. How do you think your child would respond to your request?
Bev is helping her mom make pudding. She starts to climb up on the counter so she can stir the pudding.

a. In letting your child know that he/she should not climb on the counter, would you usually say something like
   ___ The counter is wet; or
   ___ Please do not climb on the counter

b. How do you think your child would respond to your request?
Chad has brought his blocks into the hallway from his room and is building a big tower.

a. In letting your child know that some of the blocks need to be moved back into the child's room, would you usually say something like

   __ The hallway is very crowded; or
   __ Please take some blocks back into your room.

b. How do you think your child would respond to your request?
Andrew is playing out in the yard and has the sprinkler on. Andrew's dad comes to the window.

a. In letting your child know that the sprinkler needs to be moved away from the house, would you usually say something like
   ____ Water is coming in the window; or
   ____ Please move the sprinkler away from the house.

b. How do you think your child would respond to your request?
Ann has found some old dry playdough in her room and is playing with it.

a. In letting your child know that the old playdough needs to be thrown away, would you usually say something like
   - The playdough is crumbling and falling onto the rug; or
   - Please throw that old playdough away.

b. How do you think your child would respond to your request?

_________________________________________________________________________
APPENDIX C

LETTER TO PARENTS
Dear Parents:

I am a graduate student in Child Development at Iowa State University and am presently working on my Doctoral dissertation under the direction of Dr. Damaris Pease. I am interested in communicative patterns between parents and their children. Specifically I am interested in ways which parents make requests of their children and children's understanding of various ways in which requests are made.

In order to obtain this information each participating child will be individually presented 20 cartoon drawings depicting situations with which a child would be familiar. Each child will be asked to match the drawings with statements the parents in the drawings might make and then will be asked questions about those statements. This procedure will take place during your child's regular school time.

Both parents of each child will be sent a brief questionnaire which will include the same 20 situations involving a parent and a child. For each situation the parent will be asked two questions, one relating to how he/she makes requests of his/her child and one relating to how he/she thinks his/her child responds to requests made by the parent. Response to the questionnaire should take no more than 20 minutes. The responses of the children and parents will be completely confidential. No information will be considered on an individual basis nor will individual copies of the responses be made available to anyone. Once the information is tabulated, your child's responses and both parents' questionnaires will be destroyed. You may withdraw consent at any time.

I will be happy to answer any questions you might have concerning this project and can be reached at my office (294-3040) or at home (292-9294). Would you please indicate below whether you and your child are willing to participate and return this letter to your child's teacher as soon as possible.

Your willingness to be involved in this study would be greatly appreciated.

Approved by: ____________________________
Dr. Damaris Pease, Distinguished Professor

Sincerely,

______________________________
Mimi Milner Elrod, Graduate Student

We are willing to participate

We are not willing to participate

Child's name

Date ____________________________

Parent's signature