

DOCUMENT RESUME

ED 155 716

CS 204 190

TITLE Language Use, Language Ability, and Language Development: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," July through December 1977 (Vol. 38 No. 1 through 6).

INSTITUTION ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.

PUB DATE 78  
NOTE 16p.

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.

DESCRIPTORS Annotated Bibliographies; Black Youth; \*Child Language; Cognitive Processes; Communication Skills; Disadvantaged Youth; \*Doctoral Theses; Early Childhood Education; Elementary Education; Family Influence; \*Language Ability; \*Language Development; Language Handicapped; Language Research; \*Language Usage; Manual Communication; Mexican Americans; Parent Child Relationship; Preschool Children  
IDENTIFIERS Chomsky (Noam); Skinner (B F)

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 27 titles deal with a variety of topics, including the following: facilitation of language development in disadvantaged preschool children; auditory-visual discrimination skills, language performance, and development of manual gestures in young children; language used to describe females; functional communication competence in children; comparison of the speech of preschool urban, lower class black children with that of white middle class children; spoken English of Mexican-American kindergarten children; language processing and memory; home verbal environments of verbally handicapped children; a comparison of Noam Chomsky's theory of generative grammar and B.F. Skinner's theory of verbal behavior; high school students' reactions to taboo words; children's use of superlative adjectives and figurative language; the relationship between family configuration and cognitive and language abilities of preschool children; the concept comprehension of normal children with deviant syntactic development; and support of language development.  
(GW)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

ED1555716

Language Use, Language Ability, and Language Development

Abstracts of Doctoral Dissertations Published in Dissertation Abstracts International, July through December 1977 (Vol. 38 No. 1 through 6)

Compiled by the Staff of

ERIC/RCS

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Dissertation Abstracts  
International

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM "

05 204 190

The dissertation titles contained here are published  
with permission of the University Microfilms International;  
publishers of Dissertation Abstracts International  
(copyright © 1977 by University Microfilms International),  
and may not be reproduced without their prior permission.

This bibliography has been compiled as part of a continuing series designed to make information on relevant dissertations available to users of the ERIC system. Monthly issues of Dissertation Abstracts International are reviewed in order to compile abstracts of dissertations on related topics, which thus become accessible in searches of the ERIC data base. Ordering information for the dissertations themselves is included at the end of the bibliography.

Abstracts of the following dissertations are included in this collection:

Bonner, Leo Glenn

FACILITATION OF ORAL LANGUAGE  
DEVELOPMENT IN DISADVANTAGED  
PRESCHOOL CHILDREN

Braden, Beverly Arlene Dainton

LANGUAGE DIFFERENCES BETWEEN  
REFLECTIVE AND IMPULSIVE FOURTH  
GRADE CHILDREN

Brahigan, George H.

SOME EARLY CONSTRAINTS ON WORD  
COMBINATIONS

Casey, LaDeane Osler

AUDITORY-VISUAL DISCRIMINATION  
SKILLS AND LANGUAGE PERFORMANCE  
IN YOUNG CHILDREN

Cooper, Elizabeth Johnston

A SOCIOSEMANTIC STUDY OF LANGUAGE  
ABOUT FEMALES

Dorle, Jeanne Elizabeth

THE PREDICTION OF LANGUAGE SKILLS  
PRIOR TO KINDERGARTEN ENTRY

Fogel, Daniel S.

FUNCTIONAL COMMUNICATION COMPETENCE  
IN CHILDREN

Gray, Barbara Quint

AUXILIARY STRUCTURE AND SYNTACTIC  
MATURITY IN THE NATURALISTIC  
SPEECH OF 3-TO-5 YEAR OLD  
LOWER-CLASS URBAN BLACK CHILDREN

Harris, Lydia Gloria Aros

A WORD COUNT OF THE SPOKEN ENGLISH  
OF MEXICAN-AMERICAN KINDERGARTEN  
CHILDREN

Henkind-Katz, Ellie D.

THE DEVELOPMENT OF THE MANUAL GESTURAL  
ACCOMPANIMENT TO YOUNG CHILDREN'S  
CONVERSATIONS

Jon, Yoon Sik

THE EFFECT OF CONTEXT ON LANGUAGE  
PROCESSING AND MEMORY

Kaczmarek, Louise Anne

A DESCRIPTIVE ANALYSIS OF THE HOME  
VERBAL ENVIRONMENTS OF NON-TALKING  
CHILDREN

Kelly, Ann Marie

CHILDREN'S ABILITY TO SEGMENT ORAL  
LANGUAGE

Kenefick, Barbara Ann

LANGUAGE FUNCTIONS OF FIRST-GRADE  
CHILDREN WITH AND WITHOUT TEACHER  
PRESENCE: AN EMPIRICAL AND  
PHENOMENOLOGICAL STUDY

Kennedy, Dale Ernest

A THEORETICAL INVESTIGATION OF NOAM  
CHOMSKY'S THEORY OF GENERATIVE GRAMMAR  
AND B.F. SKINNER'S THEORY OF VERBAL  
BEHAVIOR

Mattox, Merry Beth

THE IDENTIFICATION AND EFFECT OF CERTAIN  
TABOO WORDS ON TENTH-, ELEVENTH-,  
AND TWELTH-GRADE STUDENTS IN THE PORTLAND,  
OREGON AND VANGOUVER, WASHINGTON AREA

Norman-Jackson, Jacquelyn

PARENTAL SUPPORT TO LANGUAGE DEVELOPMENT  
IN SIBLING PAIRS OF PRESCHOOL AND  
SECOND GRADE LOW-INCOME BLACK CHILDREN

O'Dowd, Sarah Christian

CHILDREN'S ACQUISITION OF COMPARATIVE AND  
SUPERLATIVE ADJECTIVES

Ryan, Joseph Patrick Kevin

EXPANSIONS IN THE SPEECH OF  
MOTHERS TO THEIR YOUNG CHILDREN

Robinson, Robin Lee Harrison

THE EFFECTS OF AN ORAL LANGUAGE  
TASK AS OPPOSED TO A WRITTEN LANGUAGE  
TASK ON THE PRODUCTION OF FIGURATIVE  
LANGUAGE IN SIXTH-GRADE STUDENTS

Sadow, Marilyn W.

SYNTACTIC AND SEMANTIC FACTORS  
IN CHILDREN'S COMPREHENSION OF  
SENTENCES WITH BEFORE AND AFTER

Shelly, Melvin Harold

THE RELATIONSHIP BETWEEN FAMILY  
CONFIGURATION AND COGNITIVE AND  
LANGUAGE ABILITIES OF PRE-SCHOOL-  
AGED CHILDREN

Spector, Cecile Cyril

CONCEPT COMPREHENSION OF NORMAL  
KINDERGARTEN CHILDREN WITH  
DEVIANT SYNTACTIC DEVELOPMENT

Stokes, Nona Hopson

A CROSS-SECTIONAL STUDY OF THE  
ACQUISITION OF NEGATION STRUCTURES  
IN BLACK CHILDREN

Stokes, William Thomas

CLARIFICATION EPISODES IN  
CONVERSATIONS BETWEEN CHILDREN  
AND ADULTS

Thompson, Ralph Bonner

AN INVESTIGATION OF THE  
COGNITIVE PROCESSING OF NEW  
VOCABULARY ITEMS

Wubbena, Richard Lee

A STUDY OF THE EFFECT OF  
ILLUSTRATIONS ON THE RETELLING  
OF A STORY READ TO CONSERVING  
AND NONCONSERVING GRADE ONE  
CHILDREN

## FACILITATION OF ORAL LANGUAGE DEVELOPMENT IN DISADVANTAGED PRESCHOOL CHILDREN

BONNER, Leo Glenn, Ph.D.  
The University of Wisconsin - Milwaukee, 1976

The purpose of this study was to isolate specific teacher language behaviors and their hypothesized relationship to the child's acquisition of syntax. Specifically the study focused on one question: What change in the level of syntactical development should be expected in children after they have received a specified amount of exposure to psycholinguistic techniques? This question was embodied in the hypothesis that this study has been designed to test: Children who receive more exposure to psycholinguistic techniques will show greater language growth than do children who do not receive such treatment.

In experimental design this study constituted a two by two by two design with the second factor nested within the first. The first factor, treatment, had two levels: Experimental and control. The second factor, classroom, had two classrooms nested within each treatment. The third factor, sex of child, had two levels: Male and female. Teachers in the experimental classrooms received special training in language facilitation while teachers in the control classes received no special training. Prior to the training of teachers and beginning of treatment 22 Head Start classrooms were observed to show that the four treatment classrooms were within acceptable ranges in regards to: the non-verbal context in which the child's language occurs, the stimulation given the child and responses to the child's speech. Upon completion of the training, treatment began. Treatment extended over a three month period. During this treatment phase the linguistic behaviors of teachers in the two experimental classrooms were periodically monitored to insure effective implementation. Statistical analysis of this monitoring showed significant increases in the use of the techniques, by teachers in the experimental classrooms.

The 42 children in this study, 41 to 58 months of age, were located in Racine Head Start classrooms. The age range of 41 to 58 months was established as a result of preliminary testing of children. No partition was made on the basis of ethnicity, since the critical variable in language acquisition seems to be socio-economic class and not ethnicity. All of the children in this study were members of the lower-socio-economic class. In order to assure that all children were initially functioning on approximately the same linguistic level, a pretest was administered. The results of this pretest failed to reject the null hypothesis of no significant difference between the means of the four treatment classrooms.

The major dependent variable was the set of correct responses by children on the syntax section of Carrow's Test of Auditory Comprehension. Carrow's Test also assesses the dependent variables of vocabulary, grammar and morphology. To test the hypothesis under consideration, an analysis of covariance was performed. This analysis failed to reveal any statistically significant differences between treatment and control classrooms on the major dependent variable, syntax. The analysis of covariance revealed two possible implications: The mean scores of children in experimental classroom two were consistently lower than the mean scores of the other three classrooms and the mean scores of boys in classroom two were consistently lower than the mean scores of their female counterparts in classroom two and lower than the mean scores of control boys. On the basis of these results the hypothesis under consideration failed to be confirmed.

Order No. 77-15,988, 163 pages.

## LANGUAGE DIFFERENCES BETWEEN REFLECTIVE AND IMPULSIVE FOURTH GRADE CHILDREN

BRADEN, Beverly Arlene Dainton, Ed.D.  
Virginia Polytechnic Institute and State University, 1977

Contradictory reports of previous researchers concerning the relationship between language abilities and the reflective-impulsive dimension prompted this investigation. From a sample of 118 fourth grade children, 57 subjects were classified as reflective or impulsive using the Matching Familiar Figures test. Three measures of language performance were administered. Scoring procedures were defined to adjust for chronological age of the subjects and ascending level of difficulty of the items on one of the language measures. Scores on the three

measures were combined to form a Language Performance Index (LPI). Analyses of the data were both statistical and descriptive and included testing of differences between reflective and impulsive groups as well as an analysis of the kinds of errors made by each group.

## Results

1. The difference between reflective-impulsive groups on the LPI was significant at the  $p < .057$  level of probability.
2. Intelligence, sex and socioeconomic level contributed more to the difference found on the LPI than the reflective-impulsive designation.
3. Impulsives made more errors on the language tests than reflectives, though not different kinds of errors.
4. Impulsives displayed more maze behavior and were more likely to change the meaning of sentences they orally replicated.
5. Impulsives experienced more difficulty on vocabulary items representing abstract concepts.
6. Differences between groups on five subtests of the SRA Assessment Survey were not significant either before or after statistical control of intelligence and language performance.

## Conclusions

1. Impulsive fourth graders in the study displayed a lower level of language performance than their reflective counterparts on repetition of syntactically more complex sentence structures.
2. Use of the LPI is a viable process for assessing different levels of language performance in the nine to twelve year old age group.
3. The finding of no significant differences between groups on the achievement subtests may have been due to the difficulty level of the test.
4. The results of the study tended to support conclusions of previous researchers that a relationship exists between the reflective-impulsive dimension and language performance.

## Research Implications

1. Because groups in the present study were non-equivalent, the study should be replicated on a group of nine to twelve year olds who are matched on known language correlates.
2. Reasons for the changes in meaning upon repetition of sentences need to be delineated to determine whether original meanings were misunderstood or were lost in the process of repeating syntactically complex sentences.
3. The predilection for impulsives to experience more difficulty with reverse digit span test items suggests a need for continued research on information processing differences between R-I groups.
4. Treatment research needs to be applied to impulsive responders for the language deficiencies identified--problems with fluency and coherence, meaning change, and syntactical complexity.
5. Psychologists and linguists should continue to work together toward construction of a language development test for the older elementary school child. Order No. 77-20,222, 149 pages.

## SOME EARLY CONSTRAINTS ON WORD COMBINATIONS

BRANGAN, George H., Ed.D.  
Boston University School of Education, 1977

Major Professor: Paula Menyuk

This study was undertaken to determine whether or not successive single word utterances possessed suprasegmental properties in common with single word utterances or multiple word utterances. The two suprasegmental features examined were duration and shape of fundamental frequency contours across pause boundaries.

Three children were recorded bi-weekly at 45 to 60 minute sessions over the latter part of the one word period. Spectrographic reproductions of all utterances were made. Duration was measured from broad-band spectrograms and fundamental frequency was measured at the 5th harmonic from narrow-band spectrograms. Analytic categories were determined from the length of the pause which intervened between the words in an utterance.

We found that on both measures successive single word utterances shared suprasegmental characteristics with multiple word utterances but not with single words. Non-final words in successive single word and multiple word utterances had compressed durations compared to single words of matched

syllabic form, and they also suspended fundamental frequency contour across the intervening pause. Further, we found an additional utterance form, a compressed sentence, which could not be classified in established categories. This form was rapidly executed, with no pause between words, and had a reduced phonological form. Two of our children used this form; the other did not.

We concluded that successive single word utterances are not accurately described as single word utterances strung together. Rather, they appear to be a less fluent form of multiple word utterance.

We argue that the constraints on utterance forms as the child begins to combine words are basically organizational in nature. That is, the inability to organize together phonological features, syntactic relations and semantic content result in the production of utterance forms like successive single word utterances.

Order No. 77-21,631, 156 pages.

#### AUDITORY-VISUAL DISCRIMINATION SKILLS AND LANGUAGE PERFORMANCE IN YOUNG CHILDREN

CASEY, LaDeane Osler, Ph.D.  
Arizona State University, 1977

The present study explored the differences in language between children for whom speech stimuli are, or are not, effective discriminative stimuli in a two-choice situation. First, 42 13- to 35-month-old children were evaluated as to whether, in a two-choice situation, they were under the control of visual only or visual and auditory discriminative stimuli. Second, half-hour audiorecordings of infants' verbalizations were made in a laboratory setting and transcribed. Mean length of utterance, longest utterance, and vocabulary were calculated from the transcriptions and used as measures of language performance. The three language variables were highly intercorrelated. Although there was wide variance with age, children who utilized auditory cues to make a response uniformly demonstrated greater language performance. An important by-product of the investigation was the finding that two-choice visual discrimination skills appeared in infants 13-18 months old, and that two-choice auditory and auditory-visual-combined discrimination skills appeared simultaneously in children 27-32 months old.

Order No. 77-14,538, 82 pages.

#### A SOCIOSEMANTIC STUDY OF LANGUAGE ABOUT FEMALES

COOPER, Elizabeth Johnston, Ph.D.  
The University of North Carolina at Chapel Hill, 1976

Supervisor: Bruce Champney-Johnson

The purpose of this study is to investigate the mechanism of semantic change within the framework of the heterogeneous structure of a speech community, Little Rock, Arkansas. The area of semantic space investigated is that which encompasses females of the human species. Oral and written definitions of lady, woman, and girl gathered from members of the speech community provide an understanding of their conscious and often stereotypic knowledge of the semantic space. Their not so conscious knowledge of lady, woman, and girl is measured by a written survey using a set of semantic differential scales especially developed for describing the semantic space presently being investigated. Statistical procedures such as factor analysis provide a description of the semantic space; discriminant function analysis and hierarchical grouping analysis are used to show that there is significant difference in the meaning of the three words for three age groups.

Further corroborative evidence for age gradation in the speech community implying semantic change in progress is provided by an investigation of the historical definitions of the words. An overview of the historical and contemporary social reality (context) in which the words have actually had their meaning is based on both scholarly and popular sources as well as the evidence from members of the speech community them-

objectively. Analysis of the objective evidence must be firmly grounded in the theory that meaning does not exist in the human mind alone, but that meaning interacts between the objective world (or matter) and consciousness, that matter is primary, and consequently any study of semantic change must consider both mind and matter. Order No. 77-17,311, 202 pages.

#### THE PREDICTION OF LANGUAGE SKILLS PRIOR TO KINDERGARTEN ENTRY

DORLE, Jeanne Elizabeth, Ph.D.  
University of Minnesota, 1977

The study was conducted to determine the strength of the relationship between communication skills possessed by 433 three-year-old subjects and the communication-behaviors these subjects possessed prior to entering kindergarten. Subjects were classified into three groups based on their performance prior to entering kindergarten: Intervention, Follow-Up or No Follow-Up Treatment. Three-year performance was then used in a discriminant analysis to predict this group membership. Results of the study indicated that less than half of the subjects who, on the basis of their five-year performance, required special follow-up or intervention were correctly identified by their three-year performance.

Order No. 77-26,090, 82 pages.

#### FUNCTIONAL COMMUNICATION COMPETENCE IN CHILDREN.

FOGEL, Daniel S., Ph.D.  
The University of Wisconsin-Madison, 1976

Supervisor: Professor Thomas M. Scheidel.

A major focus of the present thesis was placed on the assessment of the child's growing ability to use speech acts in a variety of interaction situations. The underlying concern can be termed the study of communication development where the major theme that serves to unify the pertinent literature is the acquisition of message strategies by the child, i.e., the ability of an individual to alter his or her communicative behavior to affect others. The emerging capability or acquisition refers to the child's development of repertoires of behavior, means of implementation of those behaviors, and a "cognition" of evaluation pertinent to changing inappropriate or ineffective communication. Message strategy is a phrase that stresses an emphasis on the sequential use of language to accomplish goals.

Evidence from literature reviews and a theory on functional communication development indicated a need to explore the developmental function of communication, to formulate and test relevant variables sensitive to communication behavioral change, and to detail salient attributes for understanding children's perceptions of the process of communication. Thus, two studies were designed to meet these needs.

Three major questions were asked in the two studies. They were (1) What are inter-grade differences in communication behavior? (2) What acts of communication are particularly important to children as they communicate with other people for different purposes? and (3) What do individuals, or groups of individuals, consider to be important in a communication situation?

In order to answer the above questions, experimental settings were designed for children from a variety of grade levels. The first study included children from grades Kindergarten, First, Third, and Fifth. The second study included grades First, Third, Fifth, Seventh, and Ninth.

The stimuli consisted of pictures and verbal probes that sought to elicit information about the communication behavior of the subjects and three significant others who participated in two different communication situations. The three significant others were mothers, teachers, and peers; the two communication situations were control and emotional. Follow-up

questionnaires were sent to parents and teachers. These questionnaires served to validate information obtained in the interviews and to elicit more information about each subject's communication behavior.

To facilitate the description of language behaviors and situations, a Communication Index was formed which consisted of the following eight variables: (1) utterance length, (2) tentativeness, (3) functional maturity, (4) speech acts, (5) syntax, (6) anaphoric pronouns, (7) situational specificity, and (8) mazes.

Results showed the basis upon which children discriminate their communication in different interaction situations. Subjects differentially used the attribute of function of communication in the various contexts. No sex differences were found in either study.

Also analyzed were the specific speech acts used by the children. One major finding pointed to a significant change at the Fifth grade level in the abilities to use "listener adapted" types of acts. Also, younger children were more able to comment on others as communicators, than they were able to comment on their own behaviors. Attention in the analyses was also paid to the strategies children used to persuade others and to try to express emotion. An individual differences analysis was used to analyze the data from Studies I and II. Findings showed that there was no indication that intelligence and family background variables are important for prediction of communication behavior. In the ratings of children's maturity as communicators, teacher's were less able to identify High Communicators versus Low Communicators than were mothers of the same children. Order No. 77-8783, 196 pages.

#### AUXILIARY STRUCTURE AND SYNTACTIC MATURITY IN THE NATURALISTIC SPEECH OF 3-TO-5 YEAR OLD LOWER-CLASS URBAN BLACK CHILDREN

GRAY, Barbara Quint, Ph D.  
New York University, 1976

This study examined the syntax of the naturalistic speech performance of 15 three-to-five year old urban, lower-class, black children to determine their syntactic maturity compared to white middle-class children of the same age as measured by Mean Utterance Length, types of transformations standardly used, and number of sentence-combining transformations per t-unit and to determine the range and nature of their non-standard verb, question, and negation structures. The data were spontaneous speech samples volunteered by the participants, who were male and female children enrolled in a Head Start Program in Harlem. They were chosen on the basis of regular attendance, status as monolingual native speakers of English, production of a minimum 50 t-units of speech, willing participation in the use of the tape recorder, and normal hearing and development. Findings show that the subjects' syntactic maturity is comparable to that of their white middle-class counterparts. Their syntactic differences from the standard patterns were primarily due to omissions, mainly omission of a tense-bearing element, and to different restrictions on transformations. There was no evidence to support suggestions of deep structure differences between standard English and Black English Vernacular. There was some evidence to suggest that young children do not produce as wide a variety of non-standard forms as do their older counterparts.

Order No. 77-16,427, 190 pages.

#### A WORD COUNT OF THE SPOKEN ENGLISH OF MEXICAN-AMERICAN KINDERGARTEN CHILDREN

HARRIS, Lydia Gloria Aros, Ed.D.  
The University of Arizona, 1976

Director: Roach Van Allen

It was the purpose of this study to collect samples and classify the word count of spoken English of Mexican-American children who were in the first semester of Follow-through kindergartens in public schools. The study attempted the following questions: 1. Did the word count differ in quantity from the word count of monolingual

Anglo children? 2. Which of the spoken words were words of highest frequency in the English language? 3. Were there unique-word types reflecting the cultural heritage?

Using selected sets of commercial pictures as stimulus materials, speech samples were obtained in 30-minute sessions. From the taped interviews, the words were typed, alphabetized and counted. The complete word list and their frequency of occurrences were compared and presented alongside the Helen A. Murphy study of middle-class Anglo children's word count.

Using a dependent measures t test, a positive correlation was found showing a match with the Anglo children's language.

In addition, a comparison was made with the Dale D. Johnson "Basic Vocabulary for Beginning Readers List." A  $\chi^2$  calculation revealed a significant use of words of high frequency by the children in this study.

Unique-word types reflecting the cultural heritage were observed but they were limited.

Order No. 77-15,335, 121 pages.

#### THE DEVELOPMENT OF THE MANUAL GESTURAL ACCOMPANIMENT TO YOUNG CHILDREN'S CONVERSATIONS

HENKIND-KATZ, Ellie D., Ph D.  
New York University, 1977

Chairperson: Professor John S. Mayher

This study investigated the development of the manual gestural accompaniment to young children's conversations. It compared the gestural behavior of thirty-two three and five year olds, eight girls and eight boys in each age group.

A gestural coding scheme was created with which to taxonomize all the children's gestural output. This coding scheme included twelve separate categories: eight of which were primarily linguistic gestures; four of which were primarily psychological/emotional gestures.

Gesturing was investigated as a function of each child's age and sex. Also explored were possible underlying causes of gesturing in children: motor coordination and verbal expressiveness, a concept created to grossly explore verbal inclinations and willingness to engage in spoken interaction. Ability levels of motor coordination and verbal expressiveness were measured for each child.

In an attempt to understand young children's gestural production, it was hypothesized that age and sex play an important role in gesturing. It was also hypothesized that verbal expressiveness plays an important role in gesturing, while motor coordination does not.

Results revealed that five year olds gesture significantly more than three year olds and that they gesture in a significantly different way, relying on different kinds of gestures. Girls gesture significantly less and in significantly different ways from boys.

It was demonstrated that verbal expressiveness is significantly correlated with gesturing. Those children who indicated an inclination to be verbally expressive tended to gesture more frequently than those children who demonstrated little propensity toward verbal expressiveness.

Results revealed that motor coordination is not significantly correlated with gesturing. This enables the conclusion that increased motor coordination does not underlie change in gestural output from age three to five.

Order No. 77-16,430, 101 pages.

#### THE EFFECT OF CONTEXT ON LANGUAGE PROCESSING AND MEMORY

JOHNSON, Yoon Sik, Ph.D.

The University of Wisconsin-Madison, 1976

Supervisor: Professor Robert E. Davidson

A constructive model assumes that language processing and memory are controlled by prior knowledge, intention, context and task demands in combination with input structure.

There have been experimental demonstrations in which contextual factors were shown to affect sentence processing and memory. However, the findings are inconsistent and conflicting. In addition, there has been little research about the effect



of pre-experimental knowledge or experience on language processing and subsequent memory. The present study was an attempt to extend the works of Bransford and Johnson (1972; 1973) by combining the factors of prior knowledge and context on comprehension and recall.

Two hundred middle class Korean high school students were divided into two groups. One-half of them were taught about the "serenade" to supply them some background information. After this training, these students were designated as the "experienced group". The Ss were assigned to one of five conditions; Appropriate context, Rearranged context, Wrong context, No context (1) and No context (2). The remaining one-half were called the "inexperienced group" and were allotted to one of the five conditions.

All subjects were tested as a group in a single session. The Ss were told they would soon hear a tape recorded passage and be asked to attempt to comprehend and remember it. They were told they would later be asked to recall the passage as accurately as they could. The Appropriate context, Rearranged context, and Wrong context subjects in each group were given 30 seconds to inspect their respective picture presented individually before the start of the recorded passage. The No context (2) subjects heard the same recording twice.

Immediately after the acquisition, the subjects rated the difficulty in comprehending the passage. A five-point scale was used, with 1 indicating the passage was very difficult to comprehend, 3 indicating moderate difficulty and 5 indicating very easy. Immediately after the rating task, the subjects were asked to recall the passage as accurately as they could; but in the event that they could not remember it word for word, they should write down as many of the semantically same ideas as possible. Ten minutes were allowed for recall.

Student protocols were scored for five recall categories: correct literal recall, paraphrase, integration or synthesis among sentences, inference appropriate related to the context of the passage, inference inappropriate. Dunn's procedure was used to perform 14 non-orthogonal comparisons among conditions.

Differential effects of different contexts on comprehension recall have been supported in this study. One of the important findings of the present research shows facilitative effect of an Appropriate context on comprehension and recall in contrast to the interfering effects of a Wrong context.

Other findings are important to note. First, the hypothesis that retrieval cues are important for recall has not been demonstrated because the Rearranged context, which contained all of the objects represented in the Appropriate context picture, was clearly inferior to the Appropriate context condition in recall scores. Second, the hypothesis that the primary effect of context upon linguistic processing is at the encoding stage has also been confirmed since a significant difference has been found between Appropriate context subjects within the experienced group and the counterpart within the nonexperienced group but not in any other condition. Third, in the analysis of the integration measure, no significant difference among experimental conditions were found. One possible explanation of this finding is integration of synthesis among sentence occurs "universally" (i.e., ?). Integration seems to be less influenced by context than in the case of other memory phenomena. Fourth, Appropriate context subjects made more appropriate inferences from the context of the input passage. In contrast, more inappropriate inferences were found among Wrong context subjects. Fifth, the hypothesis that input data are processed and recalled differently according to different prior knowledge has been confirmed.

Order No. 77-8792, 147 pages.

#### A DESCRIPTIVE ANALYSIS OF THE HOME VERBAL ENVIRONMENTS OF NON-TALKING CHILDREN

KACZMAREK, Louise Anne, Ph.D.  
The University of Rochester, 1977

This study examined the relationship between the behavioral repertoires of four verbally-handicapped children and their home verbal environments. Special attention was given to the development of a methodology for obtaining and analyzing large quantities of naturalistic data, and on the investigation of the nature of parent-child interactions.

Each child wore a smock into which was sewn an FM transmitter-microphone. This smock, worn in the house from the

time of awakening until bedtime, transmitted family-child interactions and other acoustic data to an FM receiver and reel-to-reel tape recorder. The apparatus was operative in each household for four days, yielding a total of one hundred and twelve hours of acoustic data from the four home environments investigated.

Early analysis of the data raised important methodological issues and led to the creation of another unit of analysis called an engagement. This analytical unit provided further integration and expansion of Sapon's formulations of verbal behavior.

Since the primary data in this study were exclusively acoustic, it was necessary to explore the nature of acoustic observation and to devise an analytical procedure appropriate to the level of descriptive detail available from the recorded data. Acoustic events taking place within the range of the microphone were recorded and later transcribed. These acoustic events included all engagements directed to the child, vocal exchanges about the child, vocal movements displayed by the child, and acoustic events related to non-vocal movements. Although acoustic observation does not permit complete descriptions of all movements displayed at any given time, supplementary information regarding the display of acoustically non-observable movements was derived from the vocal behavior of other members of the household. The parameters of this inferential approach were set forth in detail.

An analytical methodology which was based on Sapon's Basic Principle for the Description of Behavior, the nature of acoustic observation, and an analysis of the data from three of the cases was developed. The methodology permitted the classification of every piece of data available from the recordings. Furthermore, the management of massive amounts of data and the systematicity of the methodology suggested the utility of a computer. This suggestion led to the exploration of a set of procedures and a program for implementing reorganization and manipulation of the data in the remaining case.

The results of the analyses of each of the households, described as part of a case report on each family, revealed that although each of the children were diagnostically and behaviorally very different, many aspects of their home environments, especially with regard to parent management, were similar. It was found that each child spent the major portion of his/her day unengaged, thus limiting the number of opportunities for establishing verbal behavior, and at the same time increasing the probabilities of undesirable behaviors. Furthermore, the nature and function of the majority of those engagements which did take place were not likely to enhance the establishment of verbal behavior.

The data made available by this investigation indicated that parental expectations, as evidenced by their management and conversations with other adults, are related to each child's specific diagnosis. These results underscore the critical need for parent education programs which systematically establish teaching repertoires in parents of verbally-handicapped children. In this way, many facets of the child's home environment can be arranged and managed as productive teaching settings.

The study concluded with a discussion of strategic and tactical considerations of some of the issues related to the establishment of verbal behavior.

Order No. 77-25,461, 398 pages.

#### CHILDREN'S ABILITY TO SEGMENT ORAL LANGUAGE

KELLY, Ann Marie, Ph.D.  
Hofstra University, 1977

This cross-sectional study was undertaken in order to: (1) discover if there was a developmental pattern in children's ability to segment oral language into words and word units; (2) determine if children developed oral segmentation skills in a sequential, hierarchical order; (3) determine if there was a correlation between children's ability to segment oral language and their ability to read; and (4) devise a guideline for teaching auditory analysis skills. Gibson's theory of perceptual learning was chosen as the conceptual framework for the study.

The ninety subjects in this study were equally distributed in kindergarten, first, and second grade. Fifteen boys (eight White and seven Black) and fifteen girls (eight White and seven Black) were selected from the district's total population by sex and by race in each grade by a modified randomization.

Three instruments were used in the study--two individually administered, specifically devised oral segmentation tests, and one standardized, group reading achievement test. All testing was done in April and May of 1977.

The statistical findings were: 1. There were significant differences among kindergarten, first, and second graders in the ability to segment orally presented sentences into words. 2. There were significant differences between kindergarten and first grade groups, and kindergarten and second grade groups in the ability to segment orally presented words into units of sound. There were no significant differences between first and second graders in this skill. 3. There were no significant differences between boys and girls, at any of the grade levels, in either sentence or word segmentation ability. 4. At the first grade level there was a positive, significant correlation between the sentence and word segmentation tests. 5. There were no significant correlations between either of the segmentation tests and the reading achievement subtests and total reading scores at the first grade level. 6. At the second grade level there were significant and positive correlations between the sentence segmentation test scores and each of the reading achievement subtests and total reading scores. 7. There was no significant relationship between sentence and word segmentation scores at the second grade level.

Other findings indicated: 1. The ability to segment orally presented sentences developed earlier than the ability to segment orally presented words into units of sound. 2. Kindergarten, first, and second grade children segmented orally presented sentences into words, syllables, and combined word units. 3. At each grade level the children segmented words into phonemes, blends, phonograms, and syllables. They preferred to segment longer words into combinations of sound units rather than into phonemes. 4. Developmental patterns emerged. On both segmentation tasks older children made more segmentations, segmented smaller units, and accurately segmented more complex units than did the youngest children. Older children also used more thorough and effective search strategies than did younger children. 5. The ability to segment oral language can be encompassed in Gibson's theory of perceptual learning.

It was concluded that children develop oral language segmentation skills in a developmental pattern and that boys and girls develop them at the same rate. The ability to analyze oral language develops in a sequence over time, and in a hierarchy of complexity. In addition, the ability to analyze orally presented words is not related to reading achievement, as measured by standardized tests, at the end of either the first or second grades.

A guideline for teaching auditory analysis skills in sequence, and in a hierarchical order of complexity, was suggested. Implications for further research and the limitations of the study were also noted. Order No. 77-26,897, 159 pages.

#### LANGUAGE FUNCTIONS OF FIRST-GRADE CHILDREN WITH AND WITHOUT TEACHER PRESENCE: AN EMPIRICAL AND PHENOMENOLOGICAL STUDY

KENEFICK, Barbara Ann, Ed.D.  
Columbia University Teachers College, 1977

Sponsor: Professor Dwayne Huebner

The purpose of the study was twofold: to establish a philosophical framework for understanding communicative competence in the classroom and to test this framework through a study of first-graders' language functions with and without the presence of a teacher. A theoretical approach to communicative competence was developed based both on empirical investigations and phenomenological description. Three variables were identified as determinants of language functions: characteristics of speaker-listeners, the communicative environment, and the communicative task. From this perspective a system of categories was designed to assess its comprehensiveness, adequacy, and utility in examining actual language samples.

Groups of four children were taped in two conditions, teacher presence and teacher absence, as they worked at four subjects selected by teachers as typifying first-grade experience. Subjects, matched for verbal intelligence, were from inner-city families and represented low and middle income groups in the urban setting from which they were drawn. Both black

and white children participated, with boys and girls equally represented in all groups. Twelve teachers, white women, worked with two groups of children from their classrooms.

Typescripts were made of the tapes, which were then coded for language function by the author and two teams of assistants. Findings were presented as frequencies and percentages.

Results demonstrated that for all children teacher presence facilitated achievement of only one task, completion of a block model. Her continued instructions and shaping of children's language seemed to contribute to student success.

For all tasks, functions of children's language varied more when the children were by themselves. In the absence of the teacher, youngsters produced more declaratives and questions. They also used more language which was imaginatively related to others' experience, reported ongoing situations or events, indicated possession of objects, and structured the language task. Children by themselves always had a group member who volunteered or was selected to play the part of the teacher. However, even with a child as teacher, the volume of language decreased when the adult was absent.

When the teacher was present, children's discourse was primarily patterned as responses to her questions, with an increment in usage relating to the children's own experience, as well as for describing objects and events. Clearly the teacher gave her students vocal cues which encouraged representational speech, usually as brief answers to a multitude of questions. Thus, the teacher cut off dialogue among children and verbally tied individuals to her in a query-response cycle. When children did not immediately answer questions asked of them, teachers utilized peculiar constructions such as "piggy-backs." "Piggy-backs" constituted a series of rapid-fire questions with each successive question departing further from the main subject. Children invariably responded only to the final item.

Unexpected results included the greater language productivity of low-income children, regardless of race, when compared to more affluent peers, and the influence of the communicative task on the amount and functions of language for both conditions of teacher presence and absence. Moreover, the two conditions seemed to present different orders of social complexity, with a larger range of behavioral and speaking options for the children by themselves. Finally, the range of language functions which occurred for both teacher presence and absence was much smaller than that predicted by the theoretical framework.

Implications of this study call for a need to study language and learning strategies children share before adult intervention occurs. This project also demonstrates the need for teachers to be constantly alert to the influence of speaker-listener characteristics, the communicative environment, and communicative task on children's language patterns. This includes the focusing of attention by teachers on their own speaking patterns and the possible effects of these patterns on students' speech. Order No. 77-14,732, 427 pages.

#### A THEORETICAL INVESTIGATION OF NOAM CHOMSKY'S THEORY OF GENERATIVE GRAMMAR AND B. F. SKINNER'S THEORY OF VERBAL BEHAVIOR

KENNEDY, Dale Ernest, Ph.D.  
The University of Nebraska - Lincoln, 1977

Adviser: Lyle Eddy

Few scientific fields have their concerns overlap to the extent that psychology and linguistics overlap on the matter of language. In 1957 both Noam Chomsky, a linguist, and B. F. Skinner, a psychologist, published seminal works in the study of language. They hardly seemed to be talking about the same things, but each has spawned traditions that consider the other to be illegitimate. This is good for building reputations and one's identity, but it makes the going hard for the study of language--too many task masters. The lines of controversy have been drawn and redrawn. Chomsky published a belittling review of Skinner's *Verbal Behavior*, 1957. Skinner found reading the review an exercise in understanding somebody else's lack of comprehension. He gave up after a few pages. The problem of this work was simply this: Is the apparent conflict well founded?

To accomplish this end, the original works of both Skinner and Chomsky were reviewed carefully and then systematically

contrasted, point by point, on such dimensions as their respective goals and purposes, their procedures, and the culminating theoretical structures they put forth.

The conflict is the result only of Chomsky's resurrection of a rationalist, absolutist psychology. Chomsky, it turns out, makes a very poor psychologist. His linguistics, however, are impeccable, albeit a departure from previous methodologies of linguistic inquiry. If Chomsky's psychologizations are removed from his work, the overlap between psychology and linguistics represents no insurmountable conflict. Each has relatively independent concerns, yet each performs a work that is useful to the other. The psychological linguist à la Chomsky is quite wrong in discounting modern psychologies such as Skinner's. And the psychologist behaves just as negligently if he passes off modern linguistics as unscientific.

Order No. 77-23,145, 201 pages.

#### THE IDENTIFICATION AND EFFECT OF CERTAIN TABOO WORDS ON TENTH-, ELEVENTH-, AND TWELFTH-GRADE STUDENTS IN THE PORTLAND, OREGON AND VANCOUVER, WASHINGTON AREA

MATTOX, Merry Beth, Ed.D.  
Duke University, 1976

Supervisor: R. B. Shuman

Aural perception is extremely important to effective learning in today's schools. Some of the research concerning the threshold of perception by Lazarus, McGinnes, Postman, Bruner and a host of other leading researchers has been reviewed in this study. The effect of emotional filters on one's ability or willingness to perceive has been discussed at length. The research report, which is the basis of the thesis, has been an endeavor to add to the knowledge concerning the implied learning problems which accompany emotional filters.

Three null hypotheses were explored in this study.

**First Null Hypothesis:** There are no differences among the mean response scores of the four sex-race groups to the selected words.

**Second Null Hypothesis:** There are no sub-sets of words (factors) which meet the criteria for simple structure.

**Third Null Hypothesis:** There are no differences among mean factor score patterns of members of the four sex-race groups.

In order to test these hypotheses a response protocol based on procedures outlined in Osgood's The Measure of Meaning (1967) was developed. Three hundred tenth-, eleventh-, and twelfth-grade students, who were members of fourteen English classes in three Portland, Oregon and Vancouver, Washington High Schools responded to the 130 words used in this study.

This study was designed to achieve the following: (1) from a list of words, arrange the words by mean score from least desirable to most desirable; (2) identify those words for which there was the greatest difference in the reaction among sex-race groups; (3) identify the subset of words which in combination was most effective discriminating among the four sex-race groups; (4) determine whether or not there were sub-groups of these words (factors) which were maximally intercorrelated with each other and minimally correlated with words outside their cluster; (5) if such factors were identified determine whether or not there were differences among the mean factor score patterns of members of the four sex-race groups; (6) describe the differences identified.

From 130 words, fifty-three were identified as being significantly different among mean response scores of the four sex-race groups. This was determined through the use of analysis of variance. The use of a discriminant analysis revealed that a sub-set of words existed which in combination was most effective discriminating among the four sex-race groups. Seven factors were determined to be maximally intercorrelated with each other and minimally correlated with words outside their word cluster. Differences existed among mean factor score patterns of members of the four sex-race groups. The main effect of race was significant for five word clusters. The main effect of sex was significant for six of the seven word clusters. Sex-race interaction was significant for six of the seven word clusters.

Order No. 77-18,780, 141 pages.

#### PARENTAL SUPPORT TO LANGUAGE DEVELOPMENT IN SIBLING PAIRS OF PRESCHOOL AND SECOND GRADE LOW-INCOME BLACK CHILDREN

NORMAN-JACKSON, Jacquelyn, Ph.D.  
New York University, 1976

Chairperson: Professor Iris G. Fodor

The purpose of this investigation was to describe the verbal interactional experiences of very young preschool children in their natural settings; two contrasting groups of low-income black families were selected for study. Families in which second-grade children have attained success in reading and families in which second-grade children have not attained success in reading. It was the goal of this study to determine if the verbal interactional experiences provided for their preschool children by parents of successful second-grade readers differed in discernible ways from the verbal interactional experiences provided for their preschool children by parents of unsuccessful second-grade readers.

#### Hypotheses

1. Parents of successful readers will spend more time verbally interacting with their preschool children than parents of unsuccessful readers.
2. Parents of successful readers will offer more instances of encouragement to their preschool children's verbalizations than parents of unsuccessful readers.
3. Parents of unsuccessful readers will offer more instances of discouragement to their preschool children's verbalizations than parents of successful readers.
4. Preschool siblings of successful readers will be verbally more mature than the preschool siblings of unsuccessful readers.

#### Procedures

The study was conducted over a period of fourteen months, beginning when the school-age participants were in the first grade, and ending when they were completing the second grade. Participants were fifteen black families, each with a school-age child in the first grade and a preschool child between 24 and 42 months when the study began. 40% of the school-age children were rated by their teachers as potentially successful second-grade readers.

Two observational visits of 1½ to 2 hours each, were made in their homes to tape record descriptions of parent-child interactions and to obtain language samples from the preschool children. A revision of the Human Interaction Scale (Watts, 1973) was used to code sixty minutes of the described interactions for each child to obtain measures of: 1) time parents spent verbally interacting with children; 2) encouragement provided by parents to child-initiated verbalizations; and 3) discouragement provided to child-initiated verbalizations by parents. Language maturity was measured by the Length-Complexity Index (Miner, 1969).

The Gray Oral Reading Test was used to assess reading achievement of the school-age participants during the closing weeks of second-grade, the final data collected in the study.

#### Summary of Findings

The Mann-Whitney U test was performed on measures of time parents spent verbally interacting with their preschool children and measures of time parents providing encouragement to child-initiated verbalizations. These measures showed no significant difference between the two groups of families. The same test performed on measures of time parents spent providing discouragement to child-initiated verbalizations revealed a significant U test favoring the families of successful readers. The Mann-Whitney U test performed on measures of language maturity favored the siblings of second-grade readers beyond the .01 level.

Supplementary analysis of verbal interactional variables revealed that in families of successful second-grade readers, parents and school-age children combined spent more time in verbally stimulating interactions with the preschool children in their families than in families of unsuccessful second-grade readers.

Supplementary analysis of the children's utterances revealed the presence to criterion of grammatical morphemes related to utterance length, as described by Roger Brown.

### Conclusions and Implications

The families who participated in the present observational study appear to differ significantly in the development of language maturity in both their second-grade child and their pre-school child. Families are evidently consistent in their ability - or lack of it - to foster language development in their children.

Order No. 77-16,441, 222 pages.

### CHILDREN'S ACQUISITION OF COMPARATIVE AND SUPERLATIVE ADJECTIVES

O'DOWD, Sarah Christian, Ph.D.  
Brown University, 1976

This dissertation investigates the relatively late acquisition of comparative and superlative adjectives, hypothesizes that linguistic, cognitive, and social factors all contribute to the delay in acquisition, and evaluates the importance of each of these factors through a search of the literature and by first-hand observation and experiments. The evidence presented here shows that all of these factors play a part in the child's acquisition of comparative and superlative adjectives, thereby supporting the view that children's language development must be studied in the context of their social environments and psychological growth.

The adult target language is first described in terms of linguistic analyses of comparative and superlative adjectives and also analyses of performance data. Previous linguistic analyses in terms of morphology, syntax, or semantics are shown to be insufficient to explain adult usage; performance factors such as frequency are also significant. Since both comparative and superlative adjectives have a number of different meanings for adults, children may produce these forms with only partial mastery of the range of adult meanings.

Spontaneous child language data from several sources are analyzed. These include diary studies (e.g., Leopold 1939), a large-scale vocabulary study (Rinsland 1945), and two tape-recorded corpora of approximately twenty hours each. In addition, three experiments the author are reported a replication of Berko (1958), and a production test, and a semantic differential test of antonym acquisition. Observations of children's language and social interaction at a day-care center are also described.

From these data, conclusions are drawn about the effect of various linguistic, cognitive, and social factors in determining children's acquisition of comparative and superlative adjectives. A very high positive correlation is found between the frequency of adjectives in adult language directed toward children and the appearance of these adjectives in the children's own vocabularies. Although there are significant exceptions, both adults and children use positive forms of adjectives more frequently than comparatives, and comparatives more frequently than superlatives, reflecting one markedness prediction.

Children, like adults, use the basic polar antonym pairs (Dress 1964) in inflected forms more frequently than they use other adjectives in inflected forms. For about two-thirds of antonym pairs the unmarked antonym is more frequent than the marked, and in general, children acquire the unmarked antonym before the marked. The hypothesis that children will acquire both polar antonyms defining a dimension before acquiring relational terms referring to that dimension is not strongly supported. Instead, in many cases, preference for the unmarked antonym seems to lead to acquisition of its inflected forms before the marked antonym is acquired.

The adjective vocabularies of children at successive stages fall within a sequence of semantic domains which can be predicted from their cognitive development and socialization. Children's early comparative and superlative adjectives appear only in limited semantic areas -- primarily evaluation and quantity (though we find that two early-produced forms, more and better, are not true comparatives for children.) Children acquire the semantic notions associated with comparative adjectives at first by other linguistic devices -- intensive adverbs, reiteration, and change in vocal

The proportion of comparative and superlative adjectives in children's vocabularies more than doubles between our 3½-to-5-year-old sample and our first grade sample, supporting the hypothesis that increased competitiveness around six years is related to increase in comparative and superlative adjectives. Our data show some slight evidence for sex differences, though not for social class differences, in acquisition of comparative and superlative adjectives.

Order No. 77-14,172, 565 pages.

### EXPANSIONS IN THE SPEECH OF MOTHERS TO THEIR YOUNG CHILDREN

RYAN, Joseph Patrick Kevin, Ph.D.  
The University of Chicago, 1977

Adults often respond to children's speech by repeating children's words and word order while adding the functions missing from the children's telegraphic utterances. For example, many adults will say, "The window is broken", in response to a child saying, "Window broke". Responses such as these are called expansions.

Expansions are thought to facilitate children's acquisition of syntax because they present children ideal syntactic information in an appropriate medium at an appropriate time.

Experimental investigations attempting to demonstrate the efficacy of expansions have been inconclusive and contradictory and at the same time there is a paucity of accurate descriptive information on expansions. What descriptive research is available provides inconsistent reports concerning the definitions of expansions, their frequency and correlates.

The present study, was undertaken to provide a detailed descriptive analysis of expansions in the naturalistic context of mother-child speech during free play in their homes. Specifically, the study was designed to provide a detailed account of 1) the forms in which expansions occur, 2) the frequency with which mothers used the various forms of expansions, and 3) the characteristics of children and mothers which are correlated to mothers' use of expansions.

Twenty-four subjects were studied in a 2 x 3 design with two levels of SES (blue collar and white collar) crossed by three levels of age (24, 30, and 39 months). A homogeneous sample of white, first born boys was used to control the effects of possible extraneous variables. Two one-hour visits were made to each home where tape recordings were made of mother-child conversations. Children were given vocabulary and comprehension tests, mothers a test of their perceptions of their children's syntactic comprehension.

The transcripts were coded for various indices of the mean length of utterance for mother-to-child, child-to-mother, and mother-to-experimenter speech. Eleven forms of expansions were coded. These included "model expansions", in which the mothers add functors and only functors, expansions with pronoun reversals, interrogative transformations, lexical additions, substitution and additions, and various combinations of these adaptations. A composite variable called expansion-like responses was formed by adding together the eleven forms of expansions.

Model expansions and expansion-like responses were studied in detail. Model expansions had extremely low raw and proportional frequencies. They were considerably less common than earlier research had suggested. White collar mothers used slightly more model expansions than blue collar mothers but the difference was not significant. Both the raw and proportional frequencies of model expansions showed a significant negative correlation to the measures of the children and the mothers. The best multiple predictors of the frequency of model expansions were child-to-mother MLU and the mothers' perceptions of their children's syntactic comprehension.

Expansion-like responses had a low proportional frequency but a high raw frequency. For the blue collar SS, the raw frequency of expansion-like responses was negatively correlated to the measures of the children and mothers. The raw frequency of expansion-like responses for the white collar subjects and the proportional frequency for both SES groups were curvilinearly related to the measures of the children and the mothers. The frequency increased up until the children were 29 months old and then decreased steadily. Collapsing across SES and age groups obscures this systematic and statistically significant nonlinear relationship.

The study shows that expansions occur in various forms and that the frequency with which a mother uses expansions and the type of expansions a mother uses depend on her child's linguistic ability. The study helps understand some of the confusion in earlier expansions research, discusses the role that expansions play in children's acquisition of syntax, and offers implications for further study.

#### THE EFFECTS OF AN ORAL LANGUAGE TASK AS OPPOSED TO A WRITTEN LANGUAGE TASK ON THE PRODUCTION OF FIGURATIVE LANGUAGE IN SIXTH-GRADE STUDENTS

ROBINSON, Robin Lee Harrison, Ed.D.  
University of Arkansas, 1977

Major Professor: Dr. Larry J. Greathouse

#### PURPOSE

The purpose of this study was to determine whether the quantity of figurative language was greater in an oral task than in a written task with sixth-grade students.

The following questions were considered: 1. Is there a significant difference in the total amount of figurative language produced by sixth-grade students in an oral task and in a written task? 2. Is there a significant difference in the amount of similes used by sixth-grade students in an oral task and in a written task? 3. Is there a significant difference in the amount of metaphor produced by sixth-grade students in an oral task and in a written task? 4. Is there a significant difference in the amount of onomatopoeia produced by sixth-grade students in an oral task and in a written task? 5. Is there a significant difference in the amount of personification produced by sixth-grade students in an oral task and in a written task? 6. Is there a significant difference in the amount of total figurative language produced by sixth-grade boys and the amount of total figurative language produced by sixth-grade girls?

#### PROCEDURE AND DESIGN OF THE STUDY

The data were collected from 48 children who were in the two sixth-grade classes at Central Elementary School in Springdale, Arkansas, during the spring semester of the 1975-76 school year.

The Children's Apperception Test was used as a stimulus for creative stories by subjects. Written and oral responses were elicited from all subjects. Stories were transcribed, typed, and analyzed by the researcher in terms of total figurative language, simile, metaphor, onomatopoeia, and personification.

The data were treated by analysis of variance. Mean scores of figurative productions for each mode within each group of communicating the stories were analyzed and compared.

#### FINDINGS

1. There is a significant difference in the total amount of figurative language produced in an oral task and in a written task. 2. There is a significant difference in the amount of similes produced by sixth-grade students in an oral task and in a written task. 3. There is a significant difference in the amount of metaphor produced by sixth-grade students in an oral task and in a written task. 4. There is a significant difference in the amount of onomatopoeia produced by sixth-grade students in an oral task and in a written task. 5. There is not a significant difference in the amount of personification produced by sixth-grade students in an oral task and in a written task. 6. There is not a significant difference in the amount of total figurative language produced by sixth-grade boys and the amount of total figurative language produced by sixth-grade girls.

Order No. 77-23,351, 68 pages.

#### SYNTACTIC AND SEMANTIC FACTORS IN CHILDREN'S COMPREHENSION OF SENTENCES WITH BEFORE AND AFTER

SADOW, Marilyn W., Ph.D.  
The University of Chicago, 1977

Chairman: Rebecca Barr

Children's comprehension of sentences with Before and After was examined at two age levels, Kindergarten and third-grade, and during reading as well as listening at third-grade level. In these sentences events can be mentioned in the order in which they are described as occurring (e.g., (1) He watched TV before he did his homework and (2) After he watched TV he did his homework) or in reverse of their temporal order (e.g., (3) Before he did his homework he watched TV and (4) He did his homework after he watched TV). It was proposed that sentences should be easier to understand when they correspond to the way in which we organize perceptual experience. Since events are perceived and, therefore, presumably organized in chronological order, it was expected that sentences would be easier to understand when the sentence order of events coincided with the temporal order described.

A sequence of two events can also be either reversible or non-reversible. Reversible events represent plausible behavior in either order (as in the example above) and non-reversible events are plausible in one order and not the other (e.g., She washed the clothes before she hung them up to dry). Because understanding a sentence must involve cognitive awareness of the real-world situation to which it refers, it was expected that sentences would be easier to understand when they described non-reversible events as occurring in their plausible order than when they described reversible events; and that plausible sequences of events would be easier to understand than implausible sequences.

Significant differences were found among the three groups studied. Kindergarten children were not influenced by the sentence order of events but did find sentences with Before significantly easier than those with After; whereas, sentence structure was not a significant factor for the Third-Grade-Listening group and sentences with the After-clause in second position (No. 4 above) were more difficult than the other three sentence-types for the Third-Grade-Reading group. While implausibility interfered with comprehension for all three groups, the non-reversibility of plausible sequences facilitated comprehension only for the Kindergarten group.

The results suggest that third-grade children generally "know" the structure of sentences with Before and After but reading burdens language mechanisms just enough to interfere with the processing of particularly difficult sentence structures; and that semantic factors play a reduced role in comprehension as children acquire knowledge of language structure. Furthermore, by the time children reach the age of five, they appear to be more responsive to the internal or formal structure of language than to the superficial order of sentence elements.

#### THE RELATIONSHIP BETWEEN FAMILY CONFIGURATION AND COGNITIVE AND LANGUAGE ABILITIES OF PRESCHOOL-AGED CHILDREN

SHELLY, Melvin Harold, Ph.D.  
The University of Michigan, 1977

Chairman: LeVerne S. Collet

This study assessed the impact of an intellectual environment on a child's measured intellectual ability. In this study, the intellectual environment was the family, inferred from family configuration pattern. The measured ability was a target child's score on a cognitive or language test. The target population was preschool-aged children in compensatory education programs. The educational relevance of the study has been suggested by the parallel of the classroom intellectual environment to the family intellectual environment.

This study was based on notions of family influence derived from the Zajonc and Markus (1975) "confluence model." This theory, developed to explain observed patterns of intellectual

family configuration patterns create family intellectual environments which influence a child's measured intellectual abilities. A "teacher effect" has been posited to explain the observed relative advantage of all not-last-born children in families of varying sizes.

This researcher developed a multivariate family configuration model, mapping five notions of influence derived from the confluence theory: number of siblings, birth order, number of adults, spacing between births, and the teacher effect. Family configuration influence was assessed by the explanatory power of the multivariate family configuration model on its own and relative to the maximum explanation possible. Explanatory power of the multivariate model was the R-square value from a multiple linear regression equation using only family configuration predictors. The proportion of maximum explainable variance was computed as the family configuration R-square value divided by the R-square value of a model including all available family configuration, status, and demographic predictors.

Subject data were drawn from three existing data sets used in national evaluations of two Office of Child Development compensatory education programs conducted by the High Scope Educational Research Foundation. Subjects included in the analyses were non-handicapped, English-language dominant, preschool-aged children with siblings. This study used the analytic sample survey design (Campbell and Stanley, 1966). Multiple linear regression was used for most analyses.

By controlled, exploratory data-snooping (McNeil, Kelly, and McNeil, 1975) in the first data set, the researcher specified ten predictor vectors which best mapped the five notions of influence derived from the confluence theory. The explanatory power of the multivariate family configuration model was pilot-tested in the first data set, and replicated, cross-validated in the third data set.

In the pilot-test, the multivariate family configuration model explained eighteen percent ( $p = .0000$ ) of the variance in a composite cognitive-language score. Family configuration accounted for over half of the maximum explainable variance in the first data set. In the replication model-test, the multivariate family configuration model explained eight percent ( $p = .0000$ ) of the variance in a composite cognitive-language score. Family configuration accounted for one-third of the maximum explainable variance in the third data set. Results of supporting analyses suggested adequate mapping of the ten family configuration predictors to the five notions of family influence derived from the confluence theory.

The researcher concluded that the multivariate family configuration model demonstrated sufficiently important explanatory power or influence in this study, and in the context of previous research. The relevance of the researcher's model to the confluence theory was discussed, and the implications for family interaction research were suggested. Since the "teacher effect" notion of influence was the strongest influence in the multivariate family configuration model, the researcher suggested a translation of the family configuration model into a classroom membership model. Necessary steps for this translation were outlined. Order No. 77-18,116, 146 pages.

#### CONCEPT COMPREHENSION OF NORMAL KINDERGARTEN CHILDREN WITH DEVIANT SYNTACTIC DEVELOPMENT

SPECTOR, Cecile Cyril, Ph.D.  
New York University, 1977

Chairwoman: Professor Mary Pettas

The purpose of the study was to determine the relationship between the ability to comprehend selected basic concepts and deviant development of syntax in normal kindergarten children.

Middle socio-economic status kindergarten children, aged  $4\frac{1}{2}$  to  $5\frac{1}{2}$  years, were screened in order to select only those who had normal intelligence and were free of physical, psychological, and perceptual disorders. The syntactic ability of the children was determined by scores received on the Northwestern Syntax Screening Test (NSST). Two groups, each having 25 subjects, were formed. Subjects in the group considered deviant in syntactic development, had scores at or below the 2nd to 3rd percentiles on the NSST. Subjects in the group considered normal in syntactic development, had scores above the 10th percentile on the NSST.

The ability of the subjects in each group to comprehend selected basic concepts was measured by scores on the Boehm Test of Basic Concepts (BTBC). The 50 concepts on the BTBC are arranged in categories of time, space, quantity, and miscellaneous concepts.

For comparisons of the BTBC scores of the subjects in the two groups, the point biserial correlation coefficient ( $r_{pb}$ ) was used. The total scores for the 50 concept items were compared, as well as the category scores of time, space, quantity, and miscellaneous concept items. The results of the  $r_{pb}$  showed a significant difference for the total scores at  $p < .05$ , as well as at  $p < .01$ . Each category score for time, space, quantity, and miscellaneous concepts was also significant at  $p < .05$ . In fact, except for the category of time concepts, all categories were significant at  $p < .01$ , with the group of syntactically deviant subjects receiving the poorer scores in every instance. However, since the BTBC presents neither reliability or validity data for the four categories as individual units, the scores for each category were viewed as descriptive in nature.

Also, for descriptive purposes, the ability of each concept item to discriminate between the two groups was considered. Those concept items which received at least .40 more correct responses from one group than the other were selected as discriminating items. The need for a 40 or greater difference was arbitrarily set by the investigator.

Sixteen individual concept items, such as always, never, different, and forward, appeared to discriminate between the groups. The syntactically deviant subjects received the poorer scores in every instance. However, no particular patterns were found for errors on these 16 concept items. Rather, the items which appeared to discriminate between the groups were widely spread over all four concept categories.

The conclusions were that: a generalized, rather than a specific, weakness in the comprehension of basic concepts was present in normal subjects with deviant syntactic development; the scores for the syntactically deviant group were lower, reflecting a general inability to handle cognitive processes required to comprehend the concepts; lack of comprehension of specific concepts did not appear to be isomorphic to deviant syntax, and factors such as spatial perception, following complex directions, attention focusing ability, vocabulary comprehension, and auditory memory for sentences, appeared to contribute to lack of comprehension on the basic concepts.

The results imply that a general deficit in cognitive functioning affects the child's ability to comprehend basic concepts. This same deficit also may be related to the inability to grasp the fundamental strategies required for proper syntactic development. Therefore, the strengthening of cognitive skills appears to be worth stressing in language therapy procedures.

Finally, the researcher recommends: reevaluation of speech and language therapy programs which stress control of syntactic usage or development of specific words or sounds, but do not consider cognitive weaknesses, the use of diagnostic instruments, such as the BTBC, before beginning remediation; and further research on other cognitive skills in relation to normal children with deviant syntactic development.

Order No. 77-20,760, 116 pages.

#### A CROSS-SECTIONAL STUDY OF THE ACQUISITION OF NEGATION STRUCTURES IN BLACK CHILDREN

STOKES, Nona Hopson, Ph.D.  
Georgetown University, 1976

The negation structures of thirty-six male and female three, four and five-year-old Black children are examined for the purpose of comparing their acquisition of these structures to that of Standard English speaking children, and determining the similarities and differences of these structures as compared to those of Standard English and Vernacular Black English speaking adults. Secondary to these goals are determination of variations between male and female informants; and, the determination of whether certain negation structures can be labeled as unmarked based on the acquisition of these structures by Standard English and Vernacular Black English speaking children.

This study identified various structures that followed similar paths of development in both Standard English and Vernacular Black English. Negative concord, absence of the copula as an auxiliary and as a main verb, use of the negative modal *can't* are all structures that show similarities in development. Other structures, such as formation of the past participle, indicated similarity of development at an early age (three years), but deviation at four years and thereafter. Still other structures, such as use of the modal will and the negative of do in the third person singular (*don't* in VBE or *doesn't* in SE), showed differences in development as early as three years.

Based on the data from this study and data from a study on the acquisition of negation structures of Standard English speaking children (Bellugi, 1967) we can postulate that the structures that were used by both groups at the early stages are the unmarked forms. Negative concord and copula absence were examples of these structures. These structures are also present in adult Vernacular Black English, which implies that some Vernacular Black English structures are unmarked as well.

This study has shown that children of other dialects, Vernacular Black English specifically, do not totally follow the same acquisitional patterns as do Standard English speaking children in terms of the structures acquired or the time in which they appear and are lost. Present verbal tests determining levels of acquisition and norms for intelligence quotients are as they stand biased against dialects other than Standard English. Further studies on other structures and other dialects can lead to fairer and more valid tests, as well as, information about language acquisition in general.

Order No. 77-16,846, 201 pages.

#### CLARIFICATION EPISODES IN CONVERSATIONS BETWEEN CHILDREN AND ADULTS

STOKES, William Thomas, Ed.D.  
Boston University School of Education, 1977

Major Professor: Paula Menyuk

This study investigates the nature and significance of children's attempts to clarify their intentions when utterances embodying those intentions are misunderstood by adults during ordinary conversations. Sequences in conversation where a misunderstood utterance is clarified and acknowledged are called clarification episodes.

Two questions are addressed: (1) how do children respond to listener misapprehension? (2) do experiences in clarification episodes influence language acquisition? To address the first question we are concerned with the range of children's responses (linguistically characterized) and the cognitive activities (metalinguistic processes) that underlie those responses. To address the second question we are concerned with whether experiences in clarification episodes prompt or motivate children to form and test hypotheses regarding the structure and use of the language.

The nature of children's clarifications has been examined in several recent papers (Garvey 1977, Keenan and Schieffelin 1976, and Stokes 1976). We have extended the findings reported therein with emphasis upon analysis of the metalinguistic processes that underlie the ability to offer clarifications which entail the modification of or the correction of phonological, morphological, syntactic, semantic and pragmatic aspects of misapprehended utterances. We hypothesize that it is by stimulating such metalinguistic processes that experiences with listener misapprehension influence language development. To test this hypothesis we have conducted two investigations and have provided both structural and quantitative analyses of the data.

In the first study we recorded 30 hours of child-adult conversations. Three middle class children (26 to 38 months) participated over seven months. The character and frequency of listener misapprehension and child clarifications are described with attention to developmental trends. Children evidenced the ability to analyze the form of the misunderstood utterance, the form of the misapprehension, and the context of interaction as they prepare clarifications. We provide evidence of complex clarification strategies and evidence of

hypothesis testing during these episodes. In the second study we experimentally test the consequence of exposure to listener misapprehension in the context of elicited imitation tasks presented on three occasions. Twenty children (42 to 54 months) participated. We found that exposure to listener misapprehension resulted in significantly improved performance on the imitation task compared to control subjects not so exposed.

We conclude that experiences in clarification episodes prompt the hypothesized metalinguistic processes and thereby influence language development.

Order No. 77-21,682, 134 pages.

#### AN INVESTIGATION OF THE COGNITIVE PROCESSING OF NEW VOCABULARY ITEMS

THOMPSON, Ralph Bonner, Ph.D.  
University of Denver, 1977

People hearing unknown words often must try to infer the meanings of those words. Their ability to do so when no perceptual example of the unknown word's designatum is available suggests that manipulating such conditions may prove fruitful for investigating the cognitive aspects of linguistic meaning.

Since the relationship between thought and language is very close, one is led to ask whether differences in the formal structure of language reflect underlying differences in cognitive processes. Descriptive linguists classify new words in a language according to the morphology of the words. This study is an attempt to investigate the efficacy of a psycholinguistic model in predicting performance on a definitional task involving two morphologically different types of new words, inventions and derivations.

In Chapter 1, the primacy of the oral/aural modality in conducting human language is demonstrated and its distinctness from other linguistic modalities described. In Chapter 2, an epistemic argument for a knowledge based upon structured concepts (knowledge by description), rather than perceived particulars (knowledge by acquaintance), is advanced. Literature in the field of word meaning is reviewed to show the dependence of the research described upon knowledge-by-acquaintance paradigms and the irrelevance of that research to the investigative task at hand.

Chapter 2 continues by considering the speech perception process in order to establish the practicality of measuring differences in the duration of the cognitive processing of speech stimuli. A paradigm of the processing of such stimuli is developed, based upon current Western psychological models. Two experimental hypotheses are advanced; one predicting that subjects will process new inventions encountered in context more rapidly than new derivations encountered in context; the other predicting that subjects will display more agreement in their definitions of derivations than in their definitions of inventions.

Chapter 3 describes the procedures. To insure that participants possessed satisfactory linguistic competence and performative ability, subjects were recruited from among undergraduates in the University of Denver Honors Program who had achieved scores of at least 640 on their CEEB Verbal Scholastic Aptitude Tests. Subjects listened to 26 short taped utterances, each including an invention or a derivation. They indicated when they had decided upon a definition for the target word by depressing a switch which governed a timer. Then they stated their definitions, which the investigator transcribed. Subjects also underwent an interview, in which they described how they had reached their decisions, and a post-test to establish their knowledge of the morphemic components comprising the derivations.

The analysis of the data in Chapter 4 shows that neither hypothesis was supported. The means of all subjects' RT's were 3.20 sec. (inventions) and 3.17 sec. (derivations). While the subjects produced less diverse groups of definitions for derivations than for inventions, the difference was not statistically significant. Subjects displayed considerable individual variation in RT, some responding more rapidly to derivations; others, more rapidly to inventions. Supplementary analysis of the data showed that the derivation-faster subjects defined both inventions and derivations more accurately than their counterparts. The derivation-faster subgroup included half the 22 women in the study and 8 of the 13 men.

The data suggest that cognitive style preference may be related to the results obtained. Cognitive style is discussed briefly in Chapter 5, with the recommendation that the research of the present study be extended in two directions; first, by investigating the generality of the phenomenon of differential rapidity of response; and second, by seeking correlations between accepted measures of dimensions of cognitive style and performance on the instrument presently used.

Order No. 77-27,428, 132 pages.

#### A STUDY OF THE EFFECT OF ILLUSTRATIONS ON THE RETELLING OF A STORY READ TO CONSERVING AND NONCONSERVING GRADE ONE CHILDREN

WUBBENA, Richard Lee, Ph.D.

The University of Texas at Austin, 1977

Supervisor: Frank J. Guszak

Reading and listening activities in grade one are often accompanied by illustrations. This study was designed to provide basic information about the effect of illustrations on the retelling by grade one prereading children of a taped story they had listened to.

The investigation involved establishing equal size groups of subjects based on their ability to conserve on a task of liquid reversibility. Eighty-four children were selected from five regular classrooms to participate in the study. Forty-two children of a total of 129 children tested were selected to participate in the study on the basis of their successful performance on the liquid reversibility task. At random, from the remaining children, forty-two nonconservation subjects were also selected to participate. The eighty-four subjects (42-conservation, 42-nonconservation) were placed at random in two groups, the picture group and the nonpicture group, with each group ultimately being composed of twenty-one conservation subjects and twenty-one nonconservation subjects. The picture group of twenty-one conservation and twenty-one nonconservation subjects individually listened to the taped story with an illustration of the story present. The nonpicture group individually listened to the same story, but no illustration was present. Immediately upon listening to the story each individual engaged in retelling the story. It was found that there was no overall picture-nonpicture difference between the groups. In addition, there was no difference in retelling between the conservation and nonconservation subjects in the nonpicture group. There was, however, a significant difference at the .01 level favoring the retelling results of the conservation subjects over the nonconservation subjects in the picture condition.

It was suggested that subject to control for conceptual or mental maturity, a picture condition difference favoring conservation subjects over nonconservation subjects would be found in the random population. Illustrations probably adversely affect nonconservation children's retelling of a story listened to.

Order No. 77-23,052, 125 pages.