VERB USAGE IN THE SPEECH OF FIFTH GRADE GIRLS
IN MANHATTAN, KANSAS

by

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<div align="right">CHAO Tepen</div>

CHAPTER I

INTRODUCTION

1.0 A small part of a larger program examining the speech of children in the public schools of Manhattan, Kansas[1], this study is an attempt to analyze, describe, and tabulate the verb phrases used by fifth-grade girls.

1.1 Purpose. The purpose here is two-fold: first, to analyze morpho-syntactically, in the girls' spontaneous speech, their verb phrases and to learn something of their use of different verb patterns and verb expansions (Engler and Hannah 1966:8); and second, to make a contribution to the discipline of speech pathology, which is tremendous in scope and difficulty, ranging from the problems of speakers with mental disorders or incipient mental disorders to those resulting from some kind of trauma. At the same time this study may be of some help to English teachers in preparing more effective and efficient teaching materials. There seems to be wide agreement that the reading texts in current use in elementary schools have been produced with the use of little knowledge of the language capabilities of a child.

1.11 By use of transcriptions of speech, corpus analysis as done by Fries (1952) and Joos (1965) has been an accepted form of linguistic analysis for a number of decades. Paul Garvin (1964) suggested that such methods were of limited value, since any corpus (spoken or written) or any introspection might very likely fail to include some grammatically possible constructions, or fail to note some restrictions which systematic search might uncover; in other words, that inductively testing the mathematically possible combinations may uncover additional grammatically possible constructions or restrictions or

impossibilities that would otherwise be missed. His concept has yet to be developed to completion.

1.12 From a theoretical point of view, it would be preferable to determine the child's linguistic competence, but practical ways of doing this are still not available. Meanwhile, it is hoped that a description of the performance usage of 'normal' children will be useful as a basis for comparison with the performance of 'non-normal' clients in the clinic, and that the contrast will be useful as an additional dimension in the practical clinical business of attempting to understand the client's problem and in devising therapy for him. We note that such descriptive information will leave unexplained why the client's performance in the clinic differs from the performance of the 'normal' children at school, and that clinicians using it will have to continue to be very careful about making assessments based on performance and about the temptation to infer linguistic competence from performance.

1.2 <u>Hypothesis</u>. In the last forty years, linguists as well as communication workers (French, Carter and Koenig 1930:290-324) have noted that human beings do not use individual words equally often, even in the long run. Instead, some words are used very frequently and others are used very infrequently. The observation is equally true for the use of any linguistic pattern (Zipf 1935). As students mature, they tend to have more to express about a subject; their sentences tend to get longer and their sentence structure becomes more complicated. Based on these assumptions, the author expected that fifth-grade girls would have a tendency to use more often some kinds of structures with which they were familiar, and, at the same time, there would be some expected structures they use less frequently or not at all.

1.21 A favorite generalization of one school of linguistics used to be that every normal child has complete control of his language by the age of five or six. Conclusions from a report by Strickland (1962) included the recognition that children learn at an early age basic language structure and that the oral language of children is 'far more advanced' than is the language of reading in textbooks. The hypothesis here is that while the language development of elementary school children is indeed far more advanced than the language used in their reading textbooks, their ability to use complex constructions has not developed at a uniform rate. It is further assumed that their performance for certain constructions will correlate highly with age and grade levels.

1.3 Scope. As indicated in paragraph 1.0 above, the data on which this study is based comes from the corpus gathered by Engler and Hannah at Kansas State University in 1964, and is concerned exclusively with Manuscript XII A, consisting of twenty-four pages of material transcribed from tape produced in interviews of fifth grade girls in the public schools of Manhattan, Kansas.

1.31 The corpus, which was recorded on tape, was not formal edited dialogue between two or three girls, but rather unorganized rambling, natural talking, and story-telling. What has been transcribed for this manuscript are the utterances of relatively distinct articulation.

1.32 This study deals mainly with the verbal constructions in the material examined. Hence, the structure of every verb phrase and its object(s) or complement(s), used in the girls' speech will be carefully examined.

1.40 Review of the literature concerning the language of children. There has been a great deal of investigation concerning children's acquisition

of language(s). Yet, most of it has dealt with the language of very small children, or with written language; part of it has been concerned with learning theory, and with factors causing differences in language learning ability. Underwood and Keppel (1962) found that learning is a gradual process. Spielberger and Levin's study (1962) supported the theory of a correct response. The Journal of Verbal Learning and Verbal Behavior contains many articles concerning language studies and Elementary English gives copious detailed information concerning the research programs conducted yearly. As mentioned before, most of those studies and reports dealt with written language. This has restricted, if not nullified, the usefulness of these studies in describing the spoken language of school children.

1.41 The Development of the Language of Preschool Children. Miller and Ervin (1964), Brown and Frazer (1964), and Braine (1963a) used different terminology, but obtained very similar results. Each study discovered two basic classes of words in the speech of very young children, which were basically what Fries labeled 'function words' and 'form classes' (Fries 1952:88, 62). The children learn the position of the form classes in relation to the function words in the sentence. Braine noted that the language grows structurally by adding to the latter and grows in vocabulary by adding to the former.

Berko studied the control of English morphology in the language of both first graders and preschool children. She found that 'the answers were not always right so far as English is concerned; but they were consistent and orderly and they demonstrated that there can be no doubt that children in this age group operate with clearly delimited morphological rules' (Berko 1958).

Menyuk also studied the language of preschool and first grade children, but she dealt with the structure of their language by means of

transformational grammar. She found that 'all the basic structures used by adults to generate their sentences were found in the grammar of the nursery school group. In comparing the number of children at the two age levels who used these structures, it was found that most of the structures were used at an early age and used consistently. Structures which were still in the process of being acquired by the nursery school group were also still in the process of being acquired by the first grade group (Menyuk 1963).

Albright and Albright were referring to very young children in their methodological article 'Application of Descriptive Linguistics to Child Language', but almost all of their statements are valid for older children as well. They emphasized the rapid changes which occur in children's language as compared to adult language and the uniqueness of each stage of development. The article discussed at some length techniques for the elicitation and segmentation of data. They concluded that 'In this struggle to maintain ... their own unique language ... for communication with others and, at the same time developing it through successive stages of incre   complexity, lies what is probably the central problem of speech development in children. Careful descriptive studies should help to clarify this development' (Albright and Albright 1958).

1.42 _Literature Related to Learning Theory._ Although as early as 1958 Albright and Albright emphasized the importance of descriptive studies of children's language, much of the recent investigation of the language of children has ignored their theories in favor of an investigation of learning theory. After his article which dealt with the two main parts of speech, Braine (1963b) stated that he believed that 'grammar structure is acquired by "contextural generalization", a type of generalization which results from a

subject's learning the position of a unit in a sequence.' He later rejected this theory and decided that 'the place-contingency theory' - in which language structures are learned according to their positions in larger structures and contingency between the parts - can offer an alternative to this "transformer theory".

Mandler and Mandler (1964:195-202) also were concerned about the use of lists of unrelated words. They maintained that 'In contrast, the presence of grammatical structure in an English sentence will reveal some of the syntactic relations. Beyond the effect of structure, however, one can look at a serial "learning" task as an experiment in memory rather than learning'. In addition they found that 'Serial position curves for sentences differ markedly from those for unrelated words, and they may be said to reveal the core-memory unit of the sentence. What is correctly anticipated, i.e. remembered, frequently is in the major communicative message for the sentence'.

Fodor and Bever also conducted a study which supported the theory that structural units are thought groups and therefore different from word lists and nonsense languages. In their experiment they asked the subjects to locate subjectively clicks heard during speech. Their results indicated that '(a) clicks are attracted toward the nearest major segment boundaries in sentential material. (b) The number of correct responses is significantly higher in the case of clicks located at major segment boundaries than in the case of clicks located within segments. (c) These results are consistent with the view that the segments marked by formal constituent structure analysis in fact function as perceptual units and that the click displacement is an effect which insures the integrity of these units' (Fodor and Bever 1965:414-20).

1.43 Literature Related to the Acquisition of Specific Language
Structures. Berko's study of small children's control of morphology might
fall subject to this criticism since she used nonsense words to elicit the re-
sponses. However, she was dealing with very young children and wanted to in-
sure that she was eliciting a productive morpheme and not a pattern learned
previously as part of one English word accidently used as the stimulus. This
study dealt with the inflected forms of nouns, verbs, and adjectives. It was
found that most of the morphological inflections were present to some degree
with the exception of the comparative and superlative forms of the adjectives.

In DiVesta's study (1966) of the modification slot, all morphologically
inflected parts of speech were excluded. He tried to describe the fillers of
the modification slot and the frequency of occurrence of these structures.
His exclusion of inflected forms, however, renders his results difficult to
relate to other studies. In another study of modifiers DiVesta stated that
'it appears the child's use of modifiers corresponds closely with those of the
adult' (DiVesta 1964).

1.44 Literature Related to the Language of Older Children and/or Written
Language. Bernstein worked with London boys from 15-18 years of age. He
posited that members of the 'working class' would use a language much more
predictable in structure and vocabulary than members of the 'middle class'.
He tried to prove that there would be less 'verbal planning' (formulation of
language units) in the former group and that this would be shown by shorter
and fewer hesitations in speech. The results of his study supported this
theory.

Hunt studied the written language of fourth, eighth and twelfth-graders
by means of transformational grammar. Almost all the structures which he

examined were used by the youngest writers, but many of them 'were used with significantly greater frequency by the older students. In the great majority of instances the structures which increased were the very ones produced by sentence combining transformations' (Hunt 1964:141). Therefore, 'the older student can incorporate and consolidate more grammatical structures into a single grammatically independent unit' (Hunt 1964:139). There was a slight increase in the frequency of usage of the verbal auxiliary, and a decrease in the frequency of usage of nonclause adverbs which were not produced by sentence combining transformations. He concluded that his study had identified and isolated some 'growth buds' (Hunt 1964:141).

Zigler, Jones, and Kafes's results (1964) indicated that written English was different from spoken English. In their study of the language acquisition of first, second, and third grade boys they sought to discover factors in language performance. They made every possible combination of any two of the factors: written language, pictures, and spoken language, to discover which factors were discriminated in language performance. The only tests which failed to satisfy their study included spoken language. All of the combinations of writing and pictures were considered to be discriminated adequately. The difference in discrimination indicates that speech and writing are different and should not be equated and compared as if they were the same.

1.45 Studies Utilizing Linguistically Oriented Methodology of Language Description. Linguists, such as Strickland, DeGraff, at Indiana University developed a system which is basically a description of slots, movables, and 'mazes'[2]. Strickland used this system to investigate the relationship between the actual structures presented in children's readers. While the comparison is of little interest here, the description of the structure is. She

described several patterns of slots and movables which relate to the English basic sentence patterns. Yet only four of Engler's fourteen types and sub-types were shown by her system. She did describe the fillers of these slots and subordination in terms of the function of subordinated clauses and the slots which they filled. Yet, she did not describe these clauses in terms of the sentence patterns in which they were found.

Loban (1963) conducted a longitudinal study based on the same system that Strickland used. He studied the language of 334 children every year from kindergarten to the twelfth grade. In a supplementary study he investigated children some of whom had exceptionally high verbal ability and some excep-tionally low verbal ability. He studied the differences between the two groups' speech patterns as well as their reading and writing practices. He admitted that 'clearly determined stages of development remain as yet un-marked' (Loban 1963:87). The most significant conclusion was that 'not basic sentence pattern, but what is done to achieve flexibility within pattern proves to be a measure of proficiency with language at this level' (Loban 1963:88).

DeGraff (1961) studied only the spoken language of first, third, and fifth grade boys. He used basically the same system as Strickland and Loban with the exception that in his study of concatenation, he classified sentences into 'simple, compound, compound-complex, and utterance (incomplete)'. The greater part of the study dealt with the description of mazes, movable ele-ments, and concatenation based on the previously mentioned system for the description of sentences.

Engler and Hannah have also conducted an analysis of the speech of first, third, and fifth grade children in the hope of establishing methods for

determining norms of development. Several of Engler and Hannah's students have undertaken related studies of the Engler-Hannah corpus. Gardner (1966) studied the verb slot deviations of clinical 'language cases' and compared them to the development of normal children examined in the Engler-Hannah project. Hsu (1966) studied the order of fillers of the nominal modification slot and Campbell (1965) did a theoretical expansion of all the possible concatenation that could result from any two of the Engler basic sentence patterns.

1.5 _Justification_. A practical justification for this study is that if performance norms could be set up for children, then the speech patterns of children who come to speech clinics can be evaluated with reference to these normal patterns of development, and therapy devised for them to meet more specifically the individual client's deviations. This sort of information might also indicate a more productive order for lessons used in teaching English to speakers of other languages. It might be particularly helpful in developing an elementary school bilingual education program or program in standard English as a second dialect. The structure could be presented so that patterns being used by standard-speaking children at the age level in question would be emphasized in the lessons.

CHAPTER II

WORKING PROCEDURES

2.1 The Engler-Hannah Procedure. The investigators tape-recorded the speech of children in the public school system of Manhattan, Kansas. They found three elementary schools in the system which were representative of cross sections of the socio-economic strata of the community. At each school they had teachers choose eight boys and eight girls from each of three grades, first, third, and fifth, whom they considered 'normal', who ranged from 90 to 110 IQ on the Otis scale, and who had no record of identification for speech or hearing problems. At each school they used two separate rooms for recording, with hidden microphones. The first room, called the 'holding room', was equipped with a table and sets of plastic toys. The second, called the 'interview room', was equipped with a table, three chairs, and a set of pictures from the adult Thematic Apperception Test (Murray 1963). First, eight boys were brought from the first grade classroom to the holding room and allowed to play with the toys and to converse freely. Then two of these boys were taken to the interview room, leaving six to converse in the 'free field'. The two interviewees were shown the TAT pictures and asked to discuss them; the interviewer stayed out of the conversation as much as possible. After ten minutes, the interview was terminated and the boys returned to the holding room, and two more boys were interviewed by use of the same technique. When all the eight boys had been interviewed, the group was returned to the classroom and eight first grade girls were called to the holding room. The same process was repeated; then third grade boys were called, and so on. The result obtained was over thirty hours of tape of the speech of 144 children,

half in a free field and half in a structured interview situation.

2.11 The tapes were transcribed in orthography, without any punctuation, but including "ums and ahs", lapses, and "noise". The manuscripts were coded to correspond with the tapes and to indicate holding or interview, boys or girls, and grade levels. Scanners then listened to the tapes again while watching the manuscripts, and marked the manuscripts at places corresponding to pauses occurring in the speech recorded on the tapes. The material between every two marks was called a segment, and corresponded roughly to a phrase, clause, or sentence. Each segment was transferred to a 4x6 card provided with blanks and labels corresponding to a linguistically oriented model for the grammar of English, based on slot-filler display. On the top of the card, spaces for identification purposes were provided.

2.2 The Chao Procedure. By use of the slot-filler idea, the author was able to identify the verb-base and its auxiliaries, complement(s) or object(s) in any position in a segment.

2.21 In the 24-page manuscript, there are 488 running lines of different length, some with several verb bases and some with none. The segments are indeed often strung together one after the other in longer utterances, and sometimes are found embedded one inside the other. After careful examination of the manuscript, the author found two kinds of questionable entries, to which special consideration has been given. First, there was the interviewer's speech giving instructions or advice in the opening or closing part of the interview, which were definitely not from the fifth grade girls' speech. This material was excluded from the corpus. Second, there were the repetition or false start parts of a complete utterance, such as 'we made - we made a

picture' (see line 98). In this case, only one verb was actually counted. In a complex sentence, the verb phrases were counted as many times as there were separate clauses. After these details were determined, the author transferred each segment onto a pre-printed card, and the identification blanks for 'page - ', 'line - ' and 'card - ' were filled in order according to the original entry in the manuscript. This information is very useful in locating a particular entry in its context in the corpus. A total of 339 cards were actually made for this study.

2.22 <u>Verb Types</u>. According to the modification made by Engler, fourteen verb types for English can be posited depending on the type of verb-base and fillers in the post verbal slot. Their structural description is illustrated as follows:

Table 1

<u>Verb Types of English</u>

Type	Structural Description	Example
I.a	Verb + Complement BE nominal (NP) adjectival(adj) adverbial (adv)	That's a good idea.(line 53)
.b	Verb + Complement GET adj adv	He's getting mad at her.(line 122)
.c	Verb + Complement BECOME NP adj	No example found in the corpus.
.d	Verb + Complement Comp-taking NP adj	He looks lazy. (line 204)

Verb Types (continued)

Type	Structural Description	Example
.e	Verb + Complement senses- intransitive adj	No example found in the corpus.
.f	Verb + Complement middle NP (weigh,mean) adj	No example found in the corpus.
II.	Verb $\pm$adv intransitive	They grow up. (line 19)
III.	Verb object-taking	
.a	Verb + Object transitive NP	She has a real problem. (line 14)
.b	Verb + Object gerundive -ing form	No example found in the corpus.
.c	Verb + IO + DO/ trans DO + to + IO	No example found in the corpus.
.d	Verb + Obj$_1$ + Obj$_2$ factitive	No example found in the corpus.
.e	Verb + Obj + PP causative	No example found in the corpus.
IV.	Concatenating	
.a	Verb + Obj + base-form + Obj senses -ing form complement	You can see 'em playing it on the ground. (line 104)
.b	Verb + Obj + Infinitive + Obj transitive Comp	No example found in the corpus.

3.23 _Types of Verbal Expansion_. The Engler system of verbal expansion was derived from the formula '-te(M) (have +PP) (be +ing)' as employed by Joos (1965). Those verbs, which operate in the basic sentence types in base form, or with simple past tense or third person singular present tense inflections, are considered as the finite forms of the verb. According to Martin Joos

(1965:121), English has only two tenses, past and non-past. Other temporal aspects are indicated by means of verb expansion, such as 'be' plus '-ing' form for the continuous, 'have' plus past participle for the perfect, etc. Other expansions include all modals, modal equivalent phrases, and combinations of these complexes. Table 2 describes the Engler verbal expansion system.

Table 2

Verbal Expansion System

Type	Label	Example
I.	FinV (finite form)	goes/went
II.	$FinAux_{do}$ + base-formV	does/did go
III.	$FinAux_{be}$ + ing-formV	is/was going
IV.	$FinAux_{have}$ + past participle	has/had gone
V.	$FinAux_{have}$ + BEEN + ing-formV	has/had been going
VI.	FinModal + base-formV	will go

will	shall	can
must	may	might
dare	need	ought (to)

Type	Label	Example
VII.	FinModal + BE + ing-formV	will/would be going
VIII.	Fin Modal + HAVE + PP	will/would have gone
IX.	FinModal + HAVE BEEN + ing-formV	will/would have been going
X.	$FinAux_{quasi-aux}$ + base-formV	is to go

Quasi-aux:		
be to[3]	seem to[5]	
be able to	like to	
be made to	love to	
be going to	need to	
be about to	wish to	
be supposed to	appear to	
be in a position to	want to	

Verbal Expansion System (continued)

Type	Label		Example
	ask to[4] begin to		used to[6]
	try to expect to		have got to
	have to intend to		
	long to forget to		
	turn to attempt to		
	start to		
XI.	FinModal + base-form QuasiAux + base-formV		will be able to go
XII.	FinModal + base-form QuasiAux + base-form QuasiAux + base-formV		will have to be able to go

3.3 In addition to the verb types and verb expansions, the author was interested in the proportion of occurrences of past and non-past usage by the fifth grade girls. He was also interested in the percentage of use of negative expressions; however, this use was limited to the conspicuous use of NOT or NO in the verb phrase only. When the coding procedure was determined, a 6-digit code was planned. The first two digits were used for verb types. The third and fourth digits were used for verb expansions. The fifth digit was used for negative (1) or non-negative (blank) and the sixth digit was used for past (p) and non-past (n) countings.

3.4 After the coding had been done on the original 4x6 card, all the coded information was then keypunched onto a standard IBM card, each corresponding to one original card entry. In addition to the coded information, the card identification number was also keypunched for reference on the IBM card. This serial number was found very useful in the spotting of a particular data card needed for cross-checking purposes.

3.5 With the use of a specially written program, the sorting and tabulation could have been done completely and automatically by a computer. Because of time and budget limitations, the author sorted the keypunched cards by using a sorting machine, which was available in the computer center. The sorted material was then entered on a blank form specially designed for revealing the distribution, and the frequency of each sub-category of the verb phrase used by the fifth grade girls.

CHAPTER III

ANALYSIS OF THE FINDINGS

3.10 This chapter is concerned for the most part with the distribution of verb types and verb expansions in each relevant category and with the frequency of uses in other related aspects of the verb constructions used by the fifth grade girls in two hours of their spontaneous speech. These uses will be described by use of numerical figures calculated through tabulation of the material examined. For comparison, a general comprehensive table of all the information sought and obtained in this study is shown in Table 3.

3.11 In addition to the detailed quantitative analysis which will be given later, some general characteristics of the fifth grade girls' speech have been observed in this study. The data reveal that some patterns are used more often than others. The frequency trend moves from the simple to the more complex, an indication of the developmental nature of sentence patterns. From a very few basic sentence patterns a child may evolve many variations. Some are identical with those of the adult world, and some are not the pattern per se, but a transition phenomenon of language development. It was also found that child speech used during explanation was characterized by significantly more hesitations and pauses, repetitions and reduced rate than speech used during description. Spontaneous explanations were more fluent than those elicited by the investigators.

3.12 According to the Engler verb analysis, the verb slot may be filled by any of fourteen types of verbs, each one of which may be expanded in twelve different ways. This situation indicates that there are at least 12 x 14 or 168 possible minimum fillers of the verb slot. In some cases these expansions

Table 3

Distribution of Verb Types and Expansions

Expansion		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Total	339	230	29	38	8	4	16		1		14		
Types	100%	68%	8.5%	11%	2%	1%	4.5%				4%		
I (30%)	94	80	1	4	1		6				2		
.a	69	58					6				1		
.b	7	4		1	1						1		
.c													
.d	18	17	1										
.e													
.f													
II (20%)	17	38	7	19	4		4				5		
III (46%)	158	108	19	13	3	2	5		1		7		
.a	149	101	19	12	2	2	5		1		7		
.b	1	1											
.c	4	3		1									
.d	1	1											
.e	3	2			1								
IV (4%)	10	4	1	2		2	1						
.a	7	3	1			2	1						
.b	3	1	2										

may be combined. In the corpus, some of these fillers rarely occurred and others not at all. From the material examined in the corpus (see Appendix), 339 verb phrases have been collected, classified and studied for this paper. As revealed in Table 3, the analysis of verb types may be presented as follows:

3.20   The Verb Types. In the total 339 verb constructions, 94 (30%) of them fall in the copulative (from Type I.a to I.f) category; 77 (20%) of them belong to the intransitive (Type II); 158 (46%) of them are classified in the object-taking groups (from Type III.a to III.e); only 10 (4%) of them are in the concatenating family (Type IV.a and IV.b). Perhaps it should be pointed out that there were no examples from the sub-categories of I.c, I.e and I.f found in the whole corpus. There was only one (1) example each found in sub-category III.b and III.d. The small number of occurrences of the other types makes individual generalization unreliable or statistically insignificant. These rarely occurring verb types do not appear to be hard to use. It is very probable that there was simply no adequate opportunity to use them in the situation in which the corpus was gathered.

3.3   The Verb Expansions. As revealed by the tables, not all the verb expansions that are available in the model appeared in the corpus. The first expansion is the base form of the verb plus person-tense markers. This expansion was by far the principal one for the fifth grade girls, and is probably also for all English speakers. The percentage was up to 68%. The second most frequent choice was expansion III, the be + ing-form verb. Expansion II was the third in popularity because most of the negative verb phrases, don't/ didn't + verb-base, were classified in the group. Actually, the emphatic DO,

DOES or DID rarely occurred in the affirmative form. Only one example was found in the corpus (see line 294). Expansion IV, have + past participle, and expansion V, have + been + ing-form verb, were used eight and four times, respectively. These uses indicated their presence as a pattern capable of development, but rarely chosen. There was not a single example found of expansion VII, IX, XI and XII. There was one (1) entered under expansion VIII; it was later found to be a contracted form of the standard construction (see line 44 and card 24).

3.4 Other Findings. In addition to the main objectives of this study, the author also found that the proportion of past and non-past occurrences was 90 (27%) to 249 (73%), and the ratio of negative and affirmative occurrences was 38 (11%) to 301 (89%).

CHAPTER IV

CONCLUSIONS

4.1 As a result of the findings of this study, the statistical figures reveal that there are some rather complicated structures, such as expansions VII, IX, XI, and XII, which fifth grade girls used seldom or did not use at all in the test situation. The result might be influenced, as suggested by Paul Garvin, by the static situation of the pictures used as the elicitation stimulus, which gave little variation in action. But it is tempting to surmise that the fifth grade girls are not accustomed to using those longer and more complicated expansions or that they just cannot use those constructions at all. As Chomsky's syntactic competence model predicted, some linguistic patterns such as passive may take more time to develop than more basic constructions, and this author concludes that fifth grade girls do have trouble in using more complicated language patterns, such as the high-numbered verb expansions described in this paper.

APPENDIX

(The Corpus Used for the Study)

Card Number	Syntax	Code	Line Number
1.	reminds me kinda	3c01 n	1.
2.	when we were up at Turtle Creek	1a01 p	1.
3.	we had a picnic	3a01 p	1.
4.	he's goin' up the empire state building	2003 n	7.
5.	looks like	1d01 n	8.
6.	it is up stairs	1a01 n	10.
7.	look like	1d01 n	14.
8.	she has a real problem	3a01 n	14.
9.	she likes	3a01 n	15.
10.	she is married	1a01 n	17.
11.	she's thinkin' about	2003 n	17.
12.	they grow up	2001 n	19.
13.	she's wondering what - -	3a03 n	19.
14.	what they are doing	3a03 n	19.
15.	she's got a smile on her face	3a04 n	21.
16.	I think	2a01 n	23.
17.	I want the chair over there	3a01 n	23.
18.	boys chase us	3a01 n	37.
19.	boys play kickball	3a01 n	40.
20.	we can't wait to be in the	2006ln	40.
21.	we are going to have a party	3a10 n	41.
22.	we're all going to dance too	2010 n	41.
23.	she told us to be there	3a01 p	44.
24.	I wouldn't a told you	3a08lp	44.
25.	that's a good idea	1a01 n	52.

26.	that's interesting	1a01 n	53.
27.	we didn't think --	3a021p	56.
28.	we was going to get to do it	3a10 p	56.
29.	we just thought	3a01 p	56.
30.	David said	2001 p	57.
31.	we got to do	2001 p	57.
32.	the other said	2001 p	58.
33.	they thought they --	3a01 p	60.
34.	-they were big shots	1a01 p	60.
35.	oh I see	2010 n	63.
36.	mostly we eat	2001 n	66.
37.	we do at school	2001 n	67.
38.	thay can't	20011n	68.
39.	don't let my teacher know --	4a021n	72.
40.	I'm - here	1a01 n	72.
41.	we were	1a01 p	73.
42.	made all kind of things	3a01 p	74.
43.	we didn't make candles	3a021p	74.
44.	they did	2001 p	76.
45.	we made our own kind	3a01 p	77.
46.	everybody got	1b01 p	77.
47.	she just cut it up	3a01 p	80.
48.	she said one year that	3a01 p	82.
49.	one of the girls split paint on her dress	3a01 p	82.
50.	you know and	3a01 n	83.
51.	they used come off real nice	2010 p	83.

52.	take it	3a01 n	83.
53.	you know	3a01 n	86.
54.	they called us stupid	3d01 p	87.
55.	my grandmother collects irons	3a01 n	89.
56.	she'll love antiques	3a06 n	90.
57.	we took a newspaper	3a01 p	90.
58.	we put that in	3a01 p	91.
59.	we took all kinds of crayon shavings	3a01 p	91.
60.	and set in the newspaper	2001 p	91.
61.	we took crayon	3a01 p	92.
62.	sprinkled it all over	3a01 p	93.
63.	she had newspaper	3a01 p	94.
64.	we took an iron	3a01 p	94.
65.	we had heated up	2004 p	94.
66.	we just pushed it	3a01 p	97.
67.	we made a picture	3a01 p	98.
68.	it's just	1a01 n	98.
69.	we cut it out	3a01 p	98.
70.	they were pasting 'em together	3a03 p	99.
71.	we made two of each picture	3a01 p	99.
72.	we pasted it together	3a01 p	100.
73.	it looks real pretty	1d01 n	100.
74.	I don't know what to think	3a021n	118.
75.	what do you think's going on	3a01 n	119.
76.	he looks like	2001 n	120.
77.	the woman's scared	1a01 n	121.

78.	he's gettin' mad at her or somethin'	1b03 n	122.
79.	that man is asking her a question	3c03 n	124.
80.	looks like spring	1d01 n	127.
81.	that looks like	1d01 n	131.
82.	reminds me	3c01 n	135.
83.	that looks like	1d01 n	137.
84.	that reminds me	3c01 n	138.
85.	I guess	3a01 n	138.
86.	it does	3a01 n	139.
87.	she's going to school	2003 n	140.
88.	really doesn't look too old	1d021n	141.
89.	let's see	4a01 n	142.
90.	I don't know	3a021n	145.
91.	this could be anything	1a06 p	145.
92.	people looks	1d01 n	147.
93.	they're sleeping	2003 n	147.
94.	after they work	2001 n	147.
95.	I guess so	2001 n	148.
96.	he's trying to wake 'em up	2003 n	149.
97.	you know all around	2001 n	154.
98.	she is trying to think	2010 n	155.
99.	don't have anything to do	4b011n	156.
100.	I'm sorry	1a01 n	157.
101.	go out and play	2001 n	163.
102.	play kickball	3a01 n	165.
103.	I don't know	3a021n	167.

104.	I just like to sit around and talk	2001 n	167.
105.	we just play basketball	3a01 n	169.
106.	we have to play	2010 n	170.
107.	we play	2001 n	172.
108.	I like to do they all	3a10 n	173.
109.	we just had a new one	3a01 p	175.
110.	we have six	3a01 n	177.
111.	she'll be a year old in	1a06 n	179.
112.	I have a little girl	3a01 n	180.
113.	I have a sister	3a01 n	180.
114.	that's in 3rd grade	1a01 n	181.
115.	that's in high school	1a01 n	181.
116.	I read books	3a01 n	185.
117.	we walk around	2001 n	188.
118.	usually talk to each other	2001 n	188.
119.	all we do is walk around	1a01 n	189
120.	I had never heard of this record	2004 p	198.
121.	our teacher has lots of	3a01 n	200.
122.	my teacher has some	3a01 n	201.
123.	we use 'em think	4a01 n	201.
124.	there is four or five of them	1a01 n	201.
125.	we didn't	3a021p	205.
126.	we are going to recess	2010 n	206.
127.	we just came back from the library	2010 p	206.
128.	not that I know of	2001 n	209.
129.	looks like a lady	1d01 n	220.

130.	close the window	3a01 n	221.
131.	that's awake	1a01 n	225.
132.	they're having a argument	3a03 n	232.
133.	man is real tough	1a01 n	233.
134.	she's going to school	2003 n	236.
135.	they are plowing the field	3a03 n	236.
136.	leaves are probally turning color	2003 n	240.
137.	the water's probally real cold	1a01 n	241.
138.	it froze	2001 p	242.
139.	looks like	1d01 n	243.
140.	wouldn't be surprised	1a061p	244.
141.	she is walking to cemetery	2003 n	245
142.	they got different clothes	3a01 p	246.
143.	we got this time too	3a01 p	246.
144.	she is probably watching somebody	3a03 n	249.
145.	she is going to do	3a10 n	250.
146.	she is gonna go	2001 n	251.
147.	that's possible	1a01 n	252.
148.	girls play jump rope	3a01 n	254.
149.	cars go	2001 n	254.
150.	she's sitting on the floor	2003 n	255.
151.	she's on a chair	1a01 n	256.
152.	she's sittin' down	2003 n	256.
153.	this is the door back	1a01 n	257.
154.	she is sittin' on steps	2003 n	257.
155.	you can tell	2006 n	258.
156.	she is this way	1a01 n	260.

157.	I like to play basketball	3a01 n	266.
158.	I was thinking what --	3a03 p	268.
159.	what is tether ball anyway	1a01 n	268.
160.	there's only two plays	1a01 n	270.
161.	you draw a line	3a01 n	271.
162.	you hit the ball	3a01 n	271.
163.	it takes --	3a01 n	272.
164.	you can see 'em playing it on the ground	4a06 n	274.
165.	I got to feed our cows	3a10 p	278.
166.	hmm got rabbits and chickens	3a01 p	280.
167.	I do part of all	3a01 n	282.
168.	my mother helps me	3a01 n	282.
169.	I think --	3a01 n	284.
170.	it's milo and corn	1a01 n	284.
171.	we have to feed 'em	3a10 n	287.
172.	we have a little house	3a01 n	287.
173.	he fixed a --	3a01 p	288.
174.	you dump the feed in there	3a01 n	288.
175.	he does ride on the school bus	2a02 n	294.
176.	I live across the viaduct	2a01 n	297.
177.	we're going to get a horse this spring	3a03 n	301.
178.	we've been havin' bad luck	3a05 n	301.
179.	it was green	1a01 p	303.
180.	our cows ate it	3a01 p	304.
181.	let's see	4a01 n	304.
182.	three of 'em died	2a01 p	304.

183.	we only have two	3a01 n	305.
184.	our dad said	3a01 p	307.
185.	we keep --	3a01 n	307.
186.	they had died	2004 p	308.
187.	that is too bad	1a01 n	309.
188.	where are the stockyard	1a01 n	311.
189.	I saw some horses there one time	3a01 p	313.
190.	there used to be a bunch of horses	1a10 p	315.
191.	they took 'em out	3a01 p	315.
192.	they were fighting	2003 p	316.
193.	they only left one in	3a01 p	318.
194.	what did they do with the horse	2002 p	319.
195.	they took them up to	3a01 p	320.
196.	they put them up	3a01 p	320.
197.	that is probably better	1a01 n	321.
198.	they were riding horses	3a03 p	322.
199.	they were still wild	1a01 p	324.
200.	they weren't tamed yet	1a011p	324.
201.	they are not real wild	1a01 n	326.
202.	they didn't tame 'em yet	3a021p	326.
203.	I was just thinking about something	2003 p	332.
204.	he looks lazy	1d01 n	333.
205.	I don't know	3a021n	336.
206.	he's the main one	1a01 n	337.
207.	he does too	3a01 n	338.
208.	I don't know	3a011n	340.

209.	he's got that needle	3a04 n	340.
210.	looks like	1d01 n	340.
211.	I could do that	3a06 p	343.
212.	it's pretty	1a01 n	345.
213.	I'm curious	1a01 n	350.
214.	I forgot	2001 p	350.
215.	are you tape recording what --	3a03 n	353.
216.	what we're saying	3a03 n	353.
217.	we talk about people	2001 n	356.
218.	we're mad at somebody	1a01 n	357.
219.	we just stick our nose up at 'em	3a01 n	357.
220.	we talk about 'em	2001 n	358.
221.	they have a certain dress on	3a01 n	358.
222.	we don't like 'em	3a021n	358.
223.	we talk about work	2001 n	362.
224.	we'll talk about them	2006 n	362.
225.	they did too much work	3a01 p	363.
226.	it looks like a girl	1d01 n	369.
227.	there is a pond	1a01 n	369.
228.	it could be her father	1a06 p	371.
229.	it looks more like a father	1d01 n	372.
230.	I know	2001 n	373.
231.	I don't think -	3a021n	373.
232.	he'd be that	1a02 p	373.
233.	she's standing there	2003 n	376.
234.	she is watching him	3a03 n	376.

235.	I don't know	3a02ln	377.
236.	she's got her eyes closed	3e04 n	378.
237.	I think --	3a01 n	379.
238.	the girl's the main part in it	1a01 n	379.
239.	she's the closest to the standing out	1a01 n	380.
240.	she's going to school	2003 n	380.
241.	she has more features	3a01 n	381.
242.	this one doesn't have an outline for	3a02ln	381.
243.	she's cut off from the rest of the scene	2004 n	382.
244.	it's standing up	2003 n	383.
245.	you really look at it	2001 n	383.
246.	this is standing up	2003 n	385.
247.	I can't go like this	2006ln	386.
248.	that's a clock	1a01 n	387.
249.	it's been doing it all day	3a05 n	389.
250.	look kinda funny	1d01 n	390.
251.	it looks to me like the steps on the	1d01 n	395.
252.	are there steps around there	1a01 n	398.
253.	if you don't rock across the thing	2002ln	399.
254.	they're steps	1a01 n	400.
255.	that go to the end	3a01 n	404.
256.	you walk clear across	2001 n	404.
257.	it's just quicker	1a01 n	405.
258.	I hate to go down those steps usually	2010 n	405.
259.	we use them	3a01 n	408.
260.	that looks to me like a little girl	1d01 n	409.

261.	I first saw part of it	3a01 p	410.
262.	hum could be	1a06 p	411.
263.	I don't know	3a021n	412.
264.	it's a little bit too small for an old lady	1a01 n	412.
265.	she is thinking	2003 n	417.
266.	she looks like concentratin' on something	3b01 n	418.
267.	I don't know	3a021n	419.
268.	she's sitting on a pillow	2003 n	419.
269.	he is threatnin' her	3a03 n	421.
270.	she is leaning	2003 n	423.
271.	you know nut	3a01 n	427.
272.	are all these drawn by the same people	3e01 n	428.
273.	it shows action in it	3a01 n	430.
274.	I mean	2001 n	431.
275.	she's just sitting there	2003 n	432.
276.	you can see 'em moving	4a06 n	434.
277.	some pictures are like that	1a01 n	435.
278.	some aren't	1a011n	435.
279.	I don't know	3a021n	435.
280.	her hair is raised up	2001 n	436.
281.	you can see more of his head	3a06 n	437.
282.	I don't know	3a021n	441.
283.	it seems kinda funny	1d01 n	442.
284.	they always seem like	1d01 n	443.
285.	they get somebody older	1b01 n	443.
286.	I know some girls	3a01 n	447.

287.	girls that was in there	1a01 p	445.
288.	her name's Christine	1a01 n	446.
289.	she has a friend named Mary	3e01 n	446.
290.	she like the boy	3a01 n	447.
291.	I think in third grade now	3a01 n	447.
292.	it's not all that way	1a011n	449.
293.	I mean they	3a01 n	451.
294.	it's kinda	1a01 n	452.
295.	I know	3a01 n	453.
296.	the boys like a lot of girls	3a01 n	453.
297.	that not older than they are	1a01 n	453.
298.	I bet	2001 n	454.
299.	I know this one boy	3a01 n	454.
300.	he is in the sixth grade	1a01 n	454.
301.	his name is John Duff	1a01 n	455.
302.	he like this girl	3a01 n	455.
303.	that isn't even in school	1a011n	455.
304.	he likes	3a01 n	459.
305.	I guess	2001 n	459.
306.	he did like a girl	3a02 p	459.
307.	that's in the sixth grade	1a01 n	460.
308.	he got mad at her today	1b01 p	460.
309.	you know --	3a01 n	461.
310.	Roy hit her today	3a01 p	461.
311.	boys're thinking they	3a03 n	465.
312.	the girls will slap the boys	3a06 n	465.

313.	a boy slapped a girl	3a01 p	466.
314.	but he didn't slap her	3a021p	467.
315.	he kicked her	3a01 p	467.
316.	they're going to fix his fingerprints	3a10 n	468.
317.	but I don't know	20021n	470.
318.	you know I	3a01 n	470.
319.	I also noticed that	3a01 p	470.
320.	there are about one or two in there	1a01 n	470.
321.	the boys'll take 'em out to basketball	3a06 n	472.
322.	yes he does	3a01 n	474.
323.	he goes with Bill	2001 n	475.
324.	I mean	2001 n	475.
325.	they don't sit together	20021n	475.
326.	they ride together	2001 n	476.
327.	no they don't (ride)	20021n	477.
328.	they went to this movie	3a01 p	480.
329.	they went by themselves	2001 p	482.
330.	that doesn't matter	20021n	483.
331.	I don't think they should	3a021n	483.
332.	I think it's all right	3a01 n	484.
333.	it's all right	1a01 n	484.
334.	it was at night	1a01 p	485.
335.	that would be all different	1a06 p	485.
336.	if it was at night	1a01 p	486.
337.	I don't think that they should	3a021n	486.
338.	we've had what fifth grade girls	3a04 n	487.
339.	we're going to go back	2010 n	487.

FOOTNOTES

[1] Leo Engler and Elaine Hannah, 'Toward Norms for the Speech of Children' Kansas State University Research Project 1964-65. These investigators tape recorded the speech of first, third and fifth grade boys and girls in three public schools in Manhattan, Kansas. The tapes were transcribed in standard orthography without punctuation to provide the basic data for the study.

[2] Mazes consist of false starts, corrections, and involuted, uncompleted structures.

[3] These take expansions I, IV, VI, VIII, and with certain restrictions, X.

[4] These take expansions I-IX and some, X.

[5] These take expansions I, II, IV, VI, VIII and some, XI.

[6] These take expansion I only.

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VERB USAGE IN THE SPEECH OF FIFTH GRADE GIRLS
IN MANHATTAN, KANSAS

by

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B. A., National Taiwan University, 1963

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF ARTS

Department of Speech

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1970

ABSTRACT

This study is an attempt to describe the verb usage in the speech of
a select group of fifth-grade girls. In 1964-65, in a study of the sponta-
neous conversational speech performance of public school children in
Manhattan, Kansas, some thirty-six hours of tape recordings were produced,
transcribed, and subjected to linguistic analysis. This report is concerned
exclusively with Manuscript XII-A of that transcript, a twenty-four page
corpus of the speech of fifth-grade girls.

From the transcript, the verb phrases were identified by techniques
of descriptive linguistics. Each verb phrase was transferred to a card
pre-printed with the morpho-syntactic labels adopted for the purpose of
classifying the verbs for type and degree of expansion, and the analysis
of the verb phrase on each card carried out. By means of a coding system
devised specifically for the purpose, the results of the analysis were
punched on IBM cards for statistical work with the aid of a computer.

The corpus contained a total of 339 verb phrases. Of the verbs in
these 339 verb phrases, 94 (30%) fall in the copulative or linking-verb
category; 77 (20%) are classified as intransitive; 158 (46%) are object-
taking verbs; only 10 (4%) are in the concatenating or conjoining category.
As for degree of expansion, the favorite was Expansion I (verb base plus
person/tense marker), used more than six times as frequently as any other
degree of expansion. The more complicated the degree of expansion, the
lower was its frequency in the corpus, until among the higher-numbered
expansions, e.g., Modal plus perfective, there was no occurrence at all
in the corpus. The proportion of past- to non-past tense marker occurrence

was 90 (27%) to 249 (73%), and the ratio of negative to affirmative polarity was 38 (11%) to 301 (89%).

The author concludes that the classification system devised for the study is eminently workable, and that the findings of the study seem compatible with other reports from related fields. Noting the inverse ratio of frequency to degree of complexity, he is tempted to conclude further that fifth-grade girls have not yet really completed acquisition of control of the patterns of their language, and that normative information by age and grade levels could be provided by extensions of this study that would be helpful to such practitioners as the speech clinician and the English teacher.