ABSTRACT
        A number of studies on the acquisition of
communicative competence (the ability to communicate effectively in
natural social settings) in varying cultural and social settings are
described. Languages covered are English, including urban
Afro-American dialects; Samoan; Tzeltal, an Indian language of
Southern Mexico; Luo of Kenya; and the Spanish of California Chicano
bilinguals. Substantive areas of concentration are acquisition of (1)
syntax, (2) semantics, (3) social rules affecting choice of
linguistic variants, (4) code switching in bilingual speech, and (5)
relation of speech to grammar. The emphasis is on empirical
investigations to test current speculations on psychological
mechanisms for learning language and other human communicative
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FINAL REPORT

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STUDIES IN THE ACQUISITION OF COMMUNICATIVE COMPETENCE

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U. S. Department of
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Office of Education
Bureau of Research

Summary

A number of studies on the acquisition of communicative competence in varying cultural and social settings are described. Languages covered are English, including urban Afro-American dialects; Samoan; Tzeltal, an Indian language of Southern Mexico; Luo of Kenya; and the Spanish of California Chicano bilinguals. Substantive areas of concentration are acquisition of (1) syntax (2) semantics (3) social rules affecting choice of linguistic variants (4) code switching in bilingual speech and (5) relation of speech to grammar. The emphasis is on empirical investigations to test current speculations on psychological mechanisms for learning language and other human communicative abilities.

Introduction:

   The present project consists of a series of studies which explore
new approaches to language learning, by applying some of the principles
and insights gained from recent work in generative grammar, developmen-
tal psycholinguistics, sociolinguistics, and ethnographic semantics to
the study of communicative competence.

   The concept of communicative competence which derives from and extends
the notion of linguistic competence, refers to the ability to communicate
effectively in natural social settings. Like grammatical competence,
communicative competence is a matter of shared tacit knowledge. But
many kinds of knowledge, other than grammar alone, are necessary for
the production and interpretation of appropriate speech acts. In any
particular situation, speakers must choose among a range of permissible
communicative options: whether to employ verbal or non-verbal·symbols,
what to say to whom and when, what topics to select, what linguistic
variables to use, and how to interpret what they hear.

   This latter selection process can be treated as an information
processing routine (Geoghegan) which has as its input grammatical rules,
knowledge of social norms and speech etiquette, and the ability to per-
ceive appropriate contextual clues, and has, as its output, appropro-
priate communicative acts. Linguistic, social, and environmental
variables are thus treated within a single integrated analytical frame-
work and not as different entities to be correlated. The focus is on
individuals and the shared knowledge which enables them to generate '
appropriate speech. Although a wide range of observational and experi-
mental methods are employed, the emphasis is on empirical investigation
of speech acts in varying cultural and social settings. Speech serves
as a resource for both linguistic and social analysis.

   Since the problems we pose are new, there is as yet little empirical
data to test our approach. Systematic work in language acquisition has
been confined largely to middle class speakers of Western languages. Modern
sociolinguistics is hardly ten years old, cognitive anthropology has
only begun to go beyond kinship and ethnoscience. Our work at the moment
is therefore clearly exploratory. The goal is to illustrate gaps in the
existing approaches to language learning, to indicate new types of
information to be collected, and to suggest how a broadening of present
research paradigms can contribute to the solution of some of the basic
issues that confront scholars and educators.

   The main body of our findings is presented in the papers and reports
by individual participants enclosed with this final report. A number of
subject areas are dealt with, including: (1) comparative language
development, with special emphasis on universals of development in
syntax (Slobin) and phonology and on the earliest grammar, (2) semantics,
including acquisition of systematic semantic features and of the seman-
tic structure of lexical domains (Talmy, Kernan, Stross), (3) socio-
linguistic rules governing the selection of appropriate linguistic
forms and their acquisition (Geoghegan, Gumperz and Hernandez, Blount,
Tripp), (4) the relation between speech and language, the speech editing

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problem (Kay), (5) application to problems of first and second language
instruction (Gumperz and Hernandez, Tripp).

Individual papers touch on many of the basic issues discussed in
recent writings on language development and language education. Among
these are: (1) The relative importance of syntax and semantics in lan-
guage acquisition, (2) the problem of what is universal and what is cul-
turally specific in acquisition, (3) the mechanisms by which communicative
tasks required by the child's life space affect his language, (4) the
relation of competence to performance (5) the nature of sociolinguistic
rules, (6) problems of field work and data elicitation with culturally
diverse populations.

Analysis and findings:

Source data for the studies are taken from anthropological field work by staff members and students of the Language-Behavior Research Laboratory, University of California. Five of these studies, Keith Kernan's work in Samoa, Claudia Mitchell-Kernan's work in the Oakland inner city, Ben Blount's work in Kenya, Brian Stross' work in Southern Mexico, and David Argoff's work in Finland were directly concerned with language acquisition. Comparable types of data were collected for a variety of language situations using methods and procedures outlined in the Field Manual for Cross-cultural Study of the Acquisition of Communicative Competence (Slobin, 1967). These methods combine observation in naturalistic settings with psycholinguistic tests of various kinds. The approach, however, differs from that of the linguist or psycholinguist working on language development, in that field workers live as members of the communities they study and interpret the observational data that they collect in the light of their own first-hand knowledge of the native socio-ecological situation.

William Geoghegan's work on address systems derives from ethnographic semantic research among the Samal of the Southern Philippines. Eduardo Hernandez spent about a year in tape recording small Spanish speaking children who were learning English through informal contact with English speaking children and staff in a bilingual day care center in Oakland. Additional data on code switching in bilingual conversations were recorded by Hernandez and by Susan Ervin-Tripp in various Bay Area class rooms. Kay's analysis is based on tape recordings of the natural speech of middle class white groups in a variety of settings ranging from formal lectures to informal conversation.

The bulk of the field data was available in the form of partially analyzed tapes and field notes prior to the start of the present project. A major aim of the project was to enable field workers to stay together at a time when they would ordinarily disperse to take on other commitments and to provide a research and learning environment necessary for continued cooperation. In this way it was possible to develop the common frame of reference necessary to bring out the general implications of the work. In spring and summer of 1969, therefore, Ervin-Tripp, Gumperz, Kay, and Slobin worked with field workers on the preparation of four monograph length Working Papers (K. Kernan, C. Mitchell Kernan, Blount, Stross). These Working Papers were made available in November 1969, and approximately 100 copies of each have been distributed to scholars throughout the country. While all four papers share a common analytical framework, each makes its own contribution to the problem outlined in the introduction to this report.

Keith Kernan, using his Samoan data concentrates on the earliest stage of grammatical development, called the "pivot" or "two word" sentence. He reviews his own findings in the light of other recent work and argues that the linguists' attempts to explain the child's linguistic competence

at this stage on the basis of syntactic analysis alone are:
(1) unnecessarily complex and (2) fail to account for some of the learning
processes by which the child's verbal ability adapts to the changing
communicative tasks which his environment requires. He finds that recent
semantically based models of linguistic analysis, such as Filmore's case
grammar, are more adequate in explaining these influences.

Blount, working with early grammar among the Luo, devotes special
attention to the effect of social norms or rules of etiquette on speech
performance. Luo society is one in which behavior toward strangers,
visitors, non-family members, or even elders within one's family, is
severly channeled by rules of linguistic etiquette. Children begin to
learn these rules after some of the early stages of grammatical develop-
ment are complete. Blount shows that this learning of social norms
affects linguistic performance causing a significant drop in mean utter-
ance length when speech is measured by interviewers who are non-family
members. Clearly, linguistic performance in this case is not simply
a matter of knowledge of grammar; knowledge of local culture and social
norms is necessary to insure valid data. Blount's results raise some
serious questions about the common psycholinguistic practice of using
mean utterance length as a measure of verbal development.

Brian Stross places his major emphasis on the child's learning of
semantic domains. He concentrates on botanical nomenclature, one of the
mc important aspects of culture in a largely agricultural society. He
finds that the processes involved in the learning of these semantic
structures are quite similar to those found by other investigators who
have studied the learning of grammatical rules. For example, children
tend to overgeneralize, when first learning certain types of naming
rules, in somewhat the same way that children learning the rules for
past tense formation are at first unable to distinguish between regular
and irregular verbs. Stross' work is the first study anywhere on the
acquisition of naming rules.

Field work for David Argoff's study of Finnish was completed in
summer 1970. The write up of the data will concentrate on semantics
and syntax and should be complete by September 1971.

The cross-cultural implications of the acquisition studies are
reviewed in Slobin's report (1969). Among other things, Slobin points
out the universal features of the two-word stage of grammatical devel-
opment, noting that two-word grammars everywhere serve a limited and
cross-cultural constant set of semantic functions (e.g. naming, demands,
negation, describing, posession, etc.). Since the distributional facts
of such early sentences do not fully reflect their semantic complexity,
Slobin argues that the child's semantic competence is more developed
than is conveyed by the surface form of his utterances. Children
at this stage, furthermore, show a much heavier reliance on word order
and stress and intonation, than on other grammatical devices such as
inflection.

Keith Kernan (1970) provides the detailed analysis of the semantic
function of two-word sentences in Samoan and also argues for the priority
of semantic development over syntactic development. He discusses the

implications of his data for the question of innate versus environmental influences in language learning. He suggests that the child is born with two abilities, the ability to distinguish and name entities in the environment and the ability to recognize that these entities form relationships which, in turn, are linguistically codeable. The actual nature of the linguistic code at any time is the function of the child's cultural experience and of the language input he is exposed to.

Blount (1969) deals with the problem of environmental effects on acquisition from a slightly different perspective. His analysis of speech input to Luo, Samoan, and Black children, suggests that utterances addressed to children are universally simplified. The function of the remarks to children seems to vary. Questions and imperatives abound where children have restricted rights to speaking, whereas statements are more frequent where rights are less limited. This may account for some of the differences in language usage rules.

Talmy and Stross present a componential or semantic feature analysis of some aspect of lexical and grammatical structure in Samoan and Tzeltal respectively. While they confirm Slobin's and Keith Kernan's conclusion regarding the importance of semantics in language acquisition, they go on to point out the amazing accuracy with which children use the highly differentiated and seemingly complex terminological distinctions, such as the many different Samoan words for eating or the Tzeltal numeral classifiers, at a very early age. They note that these usages, which on the surface would seem to reflect a highly complex set of semantic rules, are, in fact, extremely context bound, occuring only in highly limited lexical environments or in clearly defined communicative situations. The picture of the learning process which emerges from their work is one in which the child first learns words within the context of particular sentences. Only at a later stage does he begin to isolate word items from their original idiomatic environments. It is at this later stage, when words begin to be used productively, that mistakes due to overgeneralization begin to occur.

Blount (1970) and Arlene Moskowitz deal with acquisition of phonology, another area which has been neglected in recent years. They place particular emphasis on the transition from babbling to early sound systems. Moskowitz focuses on the learning and perceptual processes which lead to the development of the sound system. She points out that, although it has been the practice to talk of phonological acquisition as if it were a matter of learning particular phonemes, the learning of sounds cannot be separated from the syllabic context in which they occur. Phonological learning begins when children begin to differentiate intonation carrying stretches of speech or syllables. Phonemic contrasts then emerge as a result of the child's practicing particular syllable distinctions and his beginning to combine consonant and vowel sequences of different types. The learning of sound systems, when described in these terms, bears striking similarity to the learning of semantic features. In each case, the child starts by learning items in context and then, at the later stage, learns to separate out elements from these learned utterances sequences and recombines them in new ways. All four of the last mentioned papers point to new directions of research in areas in which there exists almost no systematic data.

It has often been pointed out that competence, be it linguistic competence or communicative competence, cannot be studied apart from performance. Any work such as ours, therefore, which attempts to deduce abstract rules of grammar or usage from empirical data must be concerned with the editing processes by which speakers use their own system of rules to interpret actual instances of speech. Kay's work in this area, the first systematic work of its kind, shows that speech editing is rule governed and that editing rules are (a) few (b) simple (c) operate on utterances as linear strings of words, i. e. surface structures. An understanding of speech editing processes is of special importance in the interpretation of language acquisition data which rely on imitation tests such as those discussed by Stross and Claudia Mitchell-Kernan.

Apart from acquisition studies, the second major area of our work deals with social rules of speaking. These rules are a major component of communicative competence, yet so far, little is known about the way in which these rules operate of affect speech performance. Much of our work in this area is therefore concerned with clarifying the nature of social rules of speaking.

C. Mitchell-Kernan deals with teenage and adult speech in the urban ghetto, utilizing tape recordings of natural conversations and responses to imitation tests obtained during four weeks of experimental teaching in Emeryville, California. The non-standard English features revealed in her data are much the same as those found by previous investigators. But Mrs. Kernan goes on to show that while these features are grammatically distinct and thus constitute a separate linguistic system, they are socially meaningful in that they symbolize the contrast between speakers' social identity as blacks and the surrounding white world. She proves her point by showing that in everyday speech, non-standard markers of black speech are not used alone but alternate within the same conversation.

Gumperz and Hernandez deal with language usage within the special context of code switching in bilingual conversation. They demonstrate that what, to the outsider, might seem like random alternation between linguistic forms, conveys definite and easily decodeable meanings. Codeswitching thus is an important communicative device in certain bilingual societies.

Building on Gumperz' and Hernandez' work, Ervin-Tripp has begun work on the development of systematic elicitation techniques to study school children's code switching skills. The aim is to islate those situational clues which are most likely to trigger codeswitching from one language to another. A corpus of tape recorded material has been collected and is now being transcribed and analyzed. The materials, when complete, will serve to discover developmental sequences in the acquisition of code switching skills.

Geoghegan's papers included in this report are a first attempt to formalize some of the semantic processes involved in communication through such linguistic devices as vocabulary selection, code switching, etc. He shows that it is necessary to distinguish two types of rules: "code rules"

which give the normal or referential meaning of an utterance, and "marking rules" which operate on code rules and result in the selection of an other than usual form of speech, in order to convey such things as affect intimacy, anger, deference, respect, etc. He shows that both code rules and marking rules imply knowledge of a variety of social and environmental information and are applied in ordered sequences. Geoghegan's preliminary data indicates that marking rules and code rules increase in complexity with age through adolescence and early adulthood.

The importance of sociolinguistic work for studies of language development is highlighted in Ervin-Tripp's Social Dialects in Developmental Sociolinguistics, which is enclosed with this report. In this report, Ervin-Tripp covers social problems in field work, i. e. the question of sociolinguistically realistic testing procedures, the areas of dialect and code switching, and social meaning, as well as problems of comprehension and subjective reaction tests. Of particular importance are her remarks on the role of language in the formation of teachers' stereotypes.

An additional paper by Keith Kernan and Claudia Mitchell Kernan explores methods of studying the child's acquisition of social rules through an analysis of insult behavior. Insulting, they argue, requires a knowledge of social norms. The insulting behavior of younger children, as revealed in field data from Samoa and the Oakland Black community, frequently shows errors of over generalization and faulty inference similar to those found in grammar acquisition.

Ervin-Tripp's second report explores the implications of insights gained in language acquisition studies for the problem of second language learning. She points out that social connotation, generated by newly introduced language material and by the manner in which this material is taught, often seriously affects motivation to learn. The language learning process is also discussed, as are the implications of work in sociolinguistics for second language instruction.

Gumperz' second paper explores the implication of his code switching studies (with Chicano and Black English) for the problem of communication in the classroom. He argues that the teacher's failure to understand the meaning in the child's alternation between standard and non-standard English constitutes a serious miscommunication. It may serve to reinforce teachers' stereotypes about the child's lack of verbal ability, or to impede the child's ability to express himself effectively. He suggests that teachers be trained to decode the usage rules of ethnically different groups in order to avoid this problem.

Dissemination Activities:

A list of the publications cited in this report is appended. The Language-Behavior Research Laboratory Working Paper series is distributed to interested individuals and institutions all over the world. An additional monograph series is planned to begin in March, the first volume being the dissertation by Claudia Mitchell-Kernan which has been in continuous demand. Some of the papers cited in this report, along with other more recent work by project members, will be compiled in another volume.

Work on the acquisition of communicative competence continues to form an important part of the Language-Behavior Research Laboratory's research program, which is currently financed by a National Institute of Mental Health grant.

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