A Survey of Applied Linguistics

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A Survey of Applied Linguistics

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Ann Arbor The University of Michigan Press

ISBN 0-472-08959-5
Library of Congress Catalog Card No. 75-31053
Published in the United States of America by
The University of Michigan Press and simultaneously
in Rexdale, Canada, by John Wiley & Sons Canada, Limited
Manufactured in the United States of America

1989 1988 1987 1986 7 6 5 4

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Preface

In early 1973 the Editorial Board of *Language Learning: A Journal of Applied Linguistics* met to consider the publication of a special issue of the journal which would summarize the current state of the art in applied linguistics. The board agreed that a need existed for more than a special issue of *Language Learning* consisting merely of articles previously published in the journal. It was clear that what was needed was a comprehensive, timely review of the major domains of applied linguistics with leading scholars contributing original authoritative chapters. Such a volume would serve to isolate a number of distinct areas within the rather vaguely defined field of applied linguistics and to describe current theory and practice in each area.

At the outset the Editorial Board considered a score of potential topics which could well be included as legitimate areas within applied linguistics. It was clear, however, that in order to make the volume of manageable size and appropriate for university courses of study some topics would have to be eliminated. The narrowing process was difficult. Besides the topics now included, some strong contenders were: translation, psycholinguistics, experimental phonetics, animal communication, extralinguistic communication, language planning, and others. The twelve that were finally included in the volume seemed to represent areas which would be of greatest utilitarian value for university students interested in developing some concept of what one can "do" with linguistics. While some of the other topics indeed represent areas of fruitful research, the board considered these twelve to be of major interest to the greatest number of readers.

Each chapter focuses on the major issues and problems in the respective area. The author of the chapter discusses the importance and significance of research findings in as much detail as possible. It should be emphasized, however, that it is difficult to summarize any topic in a matter of a few pages, and the reader should expect to seek the original sources, which are listed in each bibliography, for more detailed information. Some

elementary knowledge of general linguistic principles is also necessary if the reader is to gain maximum benefit from the volume. Nevertheless, many of the chapters are at the same time quite understandable to the layman with no formal linguistic training.

The editors wish to thank those who have helped to make the volume a reality. We are grateful to all the authors for their cooperation and acknowledge with appreciation their sincerity and patience during the process of constructing a volume with a minimum of overlap among the chapters and a degree of uniformity of organization and style. We particularly appreciate the advice and assistance of the other three members of the Editorial Board of *Language Learning*: J. C. Catford, Harold V. King, and George E. Luther. The meticulous preparation of the manuscript and other secretarial services provided by Margie Berns, Jan Eichenberger, Debbie Milly, and Louisa Plyler are gratefully acknowledged. And finally, we are indebted to those students who have taken the graduate course in applied linguistics at the University of Michigan. Their comments on the various topics included in the volume together with their keen interest in the field of applied linguistics encouraged us to undertake the present work. We hope that others, in turn, may benefit from *A Survey of Applied Linguistics*.

RONALD WARDHAUGH
H. DOUGLAS BROWN

Contents

I

What Is Applied Linguistics?

H. Douglas Brown

The bounds of linguistic study are difficult to define. It is impossible to engage in the study of language without addressing numerous strictly "linguistic" issues as well as many others involving psychological, sociological, anthropological, and biological matters which may or may not be considered to be properly linguistic in nature. In recent years such interdisciplinary areas as psycholinguistics, sociolinguistics, and ethnolinguistics have developed as linguistic interest has broadened. Linguistics, in all its varieties, is, therefore, a discipline which is relatively new, growing, and still in search of stable philosophical foundations and boundaries.

Perhaps even more difficult to define is the term *applied linguistics*. Applied linguistics has been considered a subarea of linguistics for several decades, and has generally been interpreted to mean the applications of linguistic principles or theories to certain more or less "practical" matters. Second language teaching and the teaching of reading, composition, and language arts in the native language are typical areas of practical application. In the British tradition, applied linguistics is quite often even synonymous with language teaching. However, the applications of linguistics certainly extend well beyond such pedagogical concerns. But the term remains disturbingly vague.

One of the difficulties in understanding the limits and scope of applied linguistics lies in the deliberate distinction between "theoretical" or "pure" linguistics on the one hand, and "applied" linguistics on the other. It is a distinction which every linguist is aware of, and one which has caused considerable controversy and argument. Claims have even been made that there can be no such thing as applied linguistics. But efforts to separate linguistics and applied linguistics have proved to be generally unfruitful and opinionated rather than informed.

One potentially constructive approach to an understanding of what applied linguistics is, or is not, may come from examining the term *linguistics*. If an adequate definition of linguistics can be given, then it may be possible also to define *applied linguistics*. Linguistics is the study of language; it is the "science of language," as some dictionaries state—a scientific discipline the goal of which is the construction of a theory of language or an extended definition of language. One way to gain a grasp of what the issues are in constructing a theory of language is to examine some representative definitions of language. Although such an examination could result in a lexicographer's wild goose chase, it also could lead to a coherent understanding of the limits of applied linguistics. Let us consider the following definitions of *language*:

> Language is a system of arbitrary, vocal symbols which permit all people in a given culture, or other people who have learned the system of that culture, to communicate or to interact (Finocchiaro, 1964, p. 8).
>
> Language is a system of communication by sound, operating through the organs of speech and hearing, among members of a given community, and using vocal symbols possessing arbitrary conventional meanings (Pei, 1966, p. 141).
>
> Language is any set or system of linguistic symbols as used in a more or less uniform fashion by a number of people who are thus enabled to communicate intelligibly with one another (Random House, 1966, p. 806).
>
> Language is a system of arbitrary vocal symbols used for human communication (Wardhaugh, 1972, p. 3).
>
> [Language is] any means, vocal or other, of expressing or communicating feeling or thought . . . a system of conventionalized signs, especially words, or gestures having fixed meanings (Neilson, 1934, p. 1390).
>
> [Language is] a systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meanings (Gove, 1961, p. 1270).

Still other common definitions found in introductory textbooks on linguistics include the concepts of (*a*) the generativity or creativity of language, (*b*) the presumed primacy of speech over writing, and (*c*) the universality of language among human beings.

Many of the significant parameters of language are capsulized in these definitions. Some of the controversies about the nature of language are also illustrated through the restrictions present in certain definitions. Finocchiaro, Pei, and Wardhaugh, for example, restrict themselves to the notion of *vocal* symbols while the Neilson and Gove definitions include more than merely vocal symbols as the proper domain of language. Finocchiaro, Random House, and Wardhaugh restrict their definitions to *human* language, thereby implying that animal communication and language are essentially different.

A consolidation of the definitions of language yields the following composite definition:

1. Language is systematic—possibly a generative system.
2. Language is a set of arbitrary symbols.
3. Those symbols are primarily vocal, but may also be visual.
4. The symbols have conventionalized meanings to which they refer.
5. Language is used for communication.
6. Language operates in a speech community or culture.
7. Language is essentially human, although possibly not limited to humans.
8. Language is acquired by all people in much the same way—language and language learning both have universal characteristics.

These eight concepts suggest some specific, albeit overlapping, areas of research. A limited set of examples for each area follows:

1. Explicit and formal accounts of the system of language on several possible levels (most commonly, syntactic, semantic, and phonological.
2. The symbolic nature of language; the relationship between language and reality; the philosophy of language; the history of language.
3. Phonetics; phonology; writing systems; kinesics, proxemics, and other "paralinguistic" features of language.
4. Semantics; language and cognition; psycholinguistics.
5. Communication systems; speaker-hearer interaction; sentence processing.
6. Dialectology; sociolinguistics; language and culture; bilingualism and second language acquisition.

7. Human language and nonhuman communication; the physiology of language.
8. Language universals; first language acquisition.

A very simple definition of language thus suggests many issues and concerns within linguistics, all of which relate directly to the central goal of linguistic study: discovering what language is. However, among the concerns listed are a number which are typically grouped into "applied" rather than "theoretical" linguistics. Is it possible to draw a line of demarcation which separates the applied from the theoretical? The concerns in items 3, 4, 5, 6, 7, and 8 are all treated to some degree in this volume, and yet there is much in all six that is theoretical, that is, which bears on seeking an extended definition, or, a theory, of language. Some might wish to argue that item 1 is surely theoretical; however, the concerns mentioned in items 4 and 5 are involved in considering the nature of the system as it is actually manifested empirically. Perhaps, then, every question about language relates in some way to the formulation of an understanding of what language is—from teaching a foreign language to formulating global rules in Chinook Jargon.

Must we conclude, therefore, that there is really no such thing as applied linguistics? This is indeed too simplistic and too easy a solution. Every discipline has its theoretical and its applied aspects. The theoretical and applied areas simply must not be thought of as necessarily *mutually exclusive*. An area of inquiry may evidence certain applications of theory to practice and at the same time contribute to a better theoretical understanding of the particular phenomenon. Thus items 1 through 8 may all share applied and theoretical aspects. The idea of the mutual inclusiveness, or the complementarity, of applied and theoretical concerns is important, but it does not resolve the issue of where to draw the bounds between the two. Perhaps a look at the comments of some other applied linguists might provide a solution.

Politzer (1972) discusses applied linguistics with particular reference to foreign language teaching. He makes no particular effort to define linguistics, but notes that applied linguistics in foreign language teaching requires the use of linguistics to formulate assumptions about foreign language teaching and learning and also to devise teaching procedures based on these assumptions. "Linguistics is the source of assumptions rather than the source of conclusions . . . . Applied linguistics is thus not a finite body of knowledge that can be acquired . . .[it] is ultimately a habit, a way of using linguistic conceptualization to define and solve pedagogical

problems" (p. 5). For Politzer, then, there is a definable area called "linguistics" and "applied linguistics" is simply the process of formulating possible solutions to specific (in this case, pedagogical) problems using linguistic theory. Politzer's conclusion is quite simplistic, in a sense, because he limits his discussion to foreign language teaching. Furthermore, he admits that beyond the language teaching issue, the boundaries between such fields as linguistics, psycholinguistics, and applied linguistics cannot be defined precisely (p. 2).

Pap (1972) discusses the notion of applied linguistics at some length and carries his concern well beyond language teaching. Admitting both an inherent ambiguity in the term as well as its rather vague reference to "practical applications," he concludes that applied linguistics "may in effect be considered a crossroads, an interdisciplinary area, a combination of linguistics with psychology, pedagogy, mathematics, electronics, political science, and so forth" (pp. 111-12). Thus he stresses the interdisciplinary nature of applied linguistics.

Reacting to the common British usage of the term *applied linguistics*, Corder (1973) points out that "whilst applied linguistics and language teaching may be closely associated, they are not one and the same activity" (p. 10). He then offers the following definition of applied linguistics:

> The application of linguistic knowledge to some object—or applied linguistics, as its name implies—is an activity. It is not a theoretical study. It makes use of the findings of theoretical studies. The applied linguist is a consumer, or user, not a producer, of theories (p. 10).

Corder thus proposes a relatively clear formulation of the difference between applied and theoretical linguistics. Corder's view could be misleading, however, if one were to presume that applied and theoretical linguistics are mutually exclusive. Consumers, by virtue of the fact that they are testing and confirming hypotheses generated by theory, provide reinforcement and feedback to theorists. Many important components of a theory have arisen from such "consumer" feedback. In first language acquisition, for example, researchers discovered that the purely syntactic, rational linguistic theories of the 1960s held explanatory power for only a small portion of the actual data. Neither the semantic/cognitive aspect of language nor the social aspect could be accounted for adequately. Partly as a result of the "demands" of first language researchers, and partly through other forces, theoretical linguists quickly began to recognize the semantic component of language, and a new wave of theory, semantics, was born,

which brought a renewed interest in psycholinguistic topics in general. Along with this wave has emerged a revived interest in the social aspects of language, formerly considered to be irrelevant to theoretical linguistics. Psycholinguistics and sociolinguistics, once very clearly considered to be "applied" areas, now just as clearly overlap both the applied and theoretical domains.

The purity of so-called pure linguistics is rapidly becoming impossible to maintain, as Lakoff (1976) in her chapter on "Language and Society" in this volume, notes:

> Linguistics is heading in the direction of practicality. There will be in the ensuing years an ever-greater emphasis on application of theoretical discoveries; and application will be considered as valuable in its own right as pure theoretical contributions to knowledge have been. In fact, it will be increasingly recognized that theory severed from application is suspect, that data generated in the rocking chair, tested at the blackboard, and described in learned jargon are probably ridden with errors and inaccuracies (p. 222).

Is there a general conclusion that can be drawn from the various opinions on applied linguistics mentioned above? It would appear that several observations merge to form a coherent conclusion: first, Corder's definition of the applied linguist as a consumer of theories and possibly Politzer's idea of linguistics as a *source* of assumptions and hypotheses tend to concretize to some degree a definition of applied linguistics. Secondly, applied linguistics, by its very name, implies an interdisciplinary relationship, as Pap points out. Third, and perhaps most important, applied and theoretical linguistics are not mutually exclusive; theory and practice are mutually interdependent and complement each other. The strongest theories are those which have been thoroughly tested by applied research; and the best applied activity is that which is carefully and scientifically based on the explanatory power of a theoretical paradigm.

The title of this volume suggests that all twelve topics included are related to applied linguistics in some sense of the term. The three conclusions which have been drawn here substantiate such a claim. But an important aspect of each chapter included here is its potential contribution to the building of a stronger linguistic theory. The reader should look in every chapter for evidence of the empirical "consumption" of linguistic theory and for an account of coherent interdisciplinary application; but the reader should be equally aware of the importance of applied linguistics in

meeting the essential goal of all linguistic inquiry: increasing our knowledge about the nature of language.

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II

Language Development

Lois Bloom

The data for studying language development are abundant; virtually all small children are learning to talk. Moreover, it is possible to see in the study of language development a host of relevant issues and ideas that bear on the nature of language in general and, indeed, on the nature of mind and mental development. However, different investigators have observed and described the data differently, and have asked different questions of the data.

A Brief History

Until the 1950s, there were two major thrusts in research in language development: diary studies of individual children and large-scale studies of large numbers of children across age and social class. The diary studies reflected the fascination of a linguist or psychologist parent with a young child's progress in learning to talk. They varied greatly in scope and duration and several have become landmarks in the literature: for example, Ronjat's study of his son's bilingual (French-German) development (1913); the four-volume study by Leopold of his daughter's bilingual (English-German) development (1939-1949); the Sterns's study in German (1907); the studies of French-speaking children by Bloch (1921, 1924), Guillaume (1927), and Gregoire (1937); and the study by Chao of his granddaughter's Chinese development (1951). Renewed interest in these studies is apparent in Bloom (1973), Slobin (1971a), Brown (1973), and Clark (1973).

This chapter is a revised and abridged version of the chapter on language development in F. Horowitz, E. Hetherington, S. Scarr-Salapatek, and G. Siegel (eds.), *Review of Child Development Research*, vol. 4, Chicago: University of Chicago Press, 1975. The preparation of this chapter was supported in part by research grant HD 03828 from the National Institute of Child Health and Development.

However, by far the greatest effort in this same period of time was devoted to normative studies of large numbers of children who varied in age, social class, sex, birth position, etc. These studies were comprehensively reviewed in McCarthy (1954). The study by Templin (1957) was, perhaps, the last and the most important of what have come to be called count or normative studies. It is interesting that the count studies came about in reaction to the diary studies which had begun to appear in the literature at the turn of the century. The swing toward behaviorism and the striving for scientific rigor in psychology in the 1930s and 1940s resulted in a disparagement of information, however detailed and minutely recorded, gathered by a parent-investigator, who, it was presumed, was necessarily biased in what he chose to record in his notes and in what he overlooked. Only objective data that could be counted and described statistically were considered admissible. And, indeed, the major indexes of growth and development have made abundant use of precisely this kind of information.

The studies described certain properties of the *form* of children's speech, for example, the average length, parts of speech, numbers of different words, etc., in a representative number (usually fifty to one hundred) of a child's utterances. The principal result was the specification of developmental milestones that allowed comparison among individual children or groups of children. For example, children produce a variety of babbled sounds in the first year and some time around age twelve months, plus or minus several months, first-born children generally utter their first words. In the last half of the second year, children begin to produce combinations of two and three words; between ages two and three years, children speak in sentences. Developmental milestones such as these have had widespread use in medicine, psychology, speech pathology, and education (see, for example, Lenneberg, 1967).

These milestones provide only a very general and gross index of development, and, more seriously, they ignore the notion of development as continuous *change* over time. Within the single-word utterance period, to take one example, the fourteen-month-old child who is speaking single words, but is not ready to use syntax, is very different from the child of eighteen or nineteen months who is on the verge of using syntax and is still saying only one word at a time. The specific vocabulary and the ways in which the words are used vary markedly within this particular "milestone" (Bloom, 1973). As another example, children's two-word utterances are reductions of their subsequent three- and four-word sentences (Bloom, 1970; Brown, 1973). Thus, important differences in behavior that occur within a particular period of development and the ways in which the

different periods are actually interrelated and interdependent were easily overlooked in the developmental studies of the 1930s and 1940s.

The reaction to the objective studies of children's utterances began in the 1950s. Investigators began to seek different kinds of information about children and began asking different kinds of questions in their research on language development. Most important, there was a turn away from descriptions of the form of speech in an effort to discover what children *know* about language at any point in time. Research in the 1950s (for example, Berko, 1958 and Brown, 1957) began to inquire into the knowledge that underlies the ability to speak and understand—the "productive system . . . that [the child] employs in the creation of new forms" (Berko and Brown, 1960).

The new questions required the development of new research techniques for observing children's responses to the manipulation of certain kinds of language and situation variables. Such research generally involved fewer children than was typical of the earlier behaviorist-oriented research, but aimed toward obtaining more basic kinds of information. This era in psycholinguistic research has been very amply summarized and described in a number of reviews (for example, Berko and Brown, 1960; Ervin and Miller, 1963; and Ervin-Tripp, 1966). The studies convincingly demonstrated that children do not learn all of the sounds, words, and possible sentences in a language. Rather, what the child learns is an underlying linguistic system that is, itself, never directly available to the child or the adult. The studies of Brown (1957) and Berko (1958) made this point most explicitly and most elegantly. For example, when children in the Berko study were presented with a nonsense word like *wug* that named a small birdlike animal, they had no difficulty calling two of them *wugs*. Rather than learning singular and plural nouns as separate lexical items, these children had learned one rule (with phonological variants) for making the plural distinction.

The fact that children learned phonological and morphological rule systems had long been suspected by the earlier diarists and other linguists (see, for example, Jakobson, 1968, and Jespersen, 1922). Linguistic field researeh had generally emphasized discovery procedures in the phonology and morphology of languages. The study of syntax or grammar was quite another matter. It was not at all clear how one could discover the grammar of a language and it was even less clear how much of a grammar existed in early child language. However, with the advent of the theory of generative-transformational grammar (Chomsky, 1957) the search for grammar became the goal of research in language development in the

1960s, evolving in a very natural way from the interest in underlying knowledge that began in the 1950s. In short, attempts to discover what a child knows were pursued in the 1960s as a search for grammar or the description of the rule systems that could account for the use of sentences.

The investigation of child grammar began with the procedures of structural linguistic analysis (Bloomfield, 1933; Gleason, 1961; Hockett, 1958), but the goals of the research derived from developments in linguistic theory (most notably, Chomsky, 1957, 1965; Harris, 1957) with the assumption that underlying knowledge of language is equal to a generative-transformational grammar (Braine, 1963a; Brown and Fraser, 1963; McNeill, 1966; Miller and Ervin, 1964). The children in these studies were a relatively homogeneous sample of first-born children from middle-class university environments. The results were impressive in that they concurred in their essential findings, even though they involved three different and geographically separate populations of children. The children from whom these data were obtained were again fewer than in earlier research: Braine reported on the speech of three children; Brown and his associates described the speech of two children; and Miller and Ervin used a population of five children. However, each child was seen over a long period of time and was visited at home at periodic intervals (for up to several years by Brown and his associates). The important findings of these studies were that early syntax was indeed systematic and words were not juxtaposed at random even in the earliest sentences.

The finding that early sentences were constructed in an orderly and predictable way, and that all of these children, as well as others studied later (for example, Bloom, 1970, and Bowerman, 1973), used many of the same kinds of words (person names, object names, and relational terms like *more*, *all gone*, *this*, *on*, etc.), led to another important shift in child language research at the close of the 1960s. Attention was turned from *description* to an attempt at *explanation* of early sentences. Once the attempt was made to explain why some words occurred more than others and in orderly juxtaposition in early sentences, it became clear that the child's underlying knowledge did not equal a grammar in any simple way. The search began for the cognitive correlates of meaning in language and for the cognitive processes involved in language learning (Bever, 1970a; Bloom, 1970, 1973; Sinclair, 1969, 1970; and Slobin, 1971a). Thus, the emphasis of the 1960s on linguistics and linguistic theory for *describing* language development gave way in the 1970s to an emphasis on cognitive development and cognitive psychology for *explaining* language development.