REPORT
on the
SECOND ANNUAL
ROUND TABLE MEETING
on
LINGUISTICS AND LANGUAGE TEACHING

Edited by
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FROM time to time The Institute of Languages and Linguistics, School of Foreign Service, Georgetown University, publishes monographs intended to contribute to the discipline of linguistics and the teaching of languages. Manuscripts should be addressed to

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PREFACE

The Institute of Languages and Linguistics, which was established by the School of Foreign Service at Georgetown University in 1949, held in the spring of the following year the first of its projected Annual Round Table Meetings on Linguistics and Language Teaching. The general purpose of these meetings is to provide a forum in which those working in the language field can discuss problems of mutual interest. A more specific aim is to bring together what may be called the more traditional language teachers and representatives of the newer school of scientific linguistics, especially descriptive linguistics. Another point of particular emphasis is consideration of the use of new technological aids for language study.

The First Round Table Meeting aroused such interest as to suggest the desirability of publication of a report for a wider audience. Since a detailed record had not been kept, however, it was not possible to present an adequate account of the discussions. In view of this experience, the proceedings of the Second Round Table Meeting were recorded with a view to facilitating publication. The present Report is an edited version of these proceedings.

The Editor.
MEETING THE GOVERNMENT’S NEEDS
IN LANGUAGES

Mortimer Graves (American Council of Learned Societies), the Chairman of the panel, initiated the discussion by remarking that no characterization of our present crisis is so commonplace as that which describes it as an ideological war. Ideological World War III has started and there is no certainty that it is well won yet. In spite of the fact that this is a war for men’s minds, there exist no Joint Chiefs of Staff planning such a war, no war production authority concerning itself with materiel for such a war. These questions are by and large, in our society, left to the private initiative of the type that one sees in the Georgetown Institute of Languages and Linguistics.

In this war for men’s minds, obviously the big guns of our armament is competence in languages and linguistics. Once we get into the more active stage, move out of the ideological war, society does begin to realize this fact and does begin to do something about it, usually in a great deal of rush and with the ineffectiveness and inefficiency that that rush entails. Americans seem to find it impossible to plan these things in other ways. This happened in the most recent of our World Wars. There was a frenetic linguistic development going through the war in which the major contribution came from the fact that the technical linguistic scientist was for the first time really injected into the process. The technical linguist suddenly discovered that he could be useful as well as scientific. Now this also injected a note of pleasant acrimony into a science that was showing signs of being moribund, that is to say the teaching of foreign languages. This whole complex is represented, in a sense, in the title of these meetings, Languages and Linguistics.
Bryce Wood (Social Science Research Council) stated that the Council has for some time been interested in the problem of the teaching of students in graduate schools in area centers. Since 1946 it has had a committee of the Council called the World Area Research Committee. A report was made several years ago by Professor Robert D. Hall of the University of Michigan about the area research centers, describing the kind of instruction given in them. The development of such centers is rather a new development in the general field of graduate instruction in the social sciences, involving an attempt at developing for the students knowledge of an area, including introduction at least from the point of view of various social sciences as well as the language or languages of the area.

Last fall it became clear that there was a need for some kind of action to be taken with regard to the existing area centers in the United States. Concern about the existence of the area centers was expressed by the government, which developed a need for social scientists trained in area competence, both in language and in economic, geographical, anthropological, and other information about areas abroad. A problem developed in the area centers, however, when recruitment teams from the government visited the universities to see whether or not they could obtain members of the faculty and of the student body for government employment. For example, a member of the State Department stated last December that there was a need for three hundred area specialists. The universities were afraid that they were going to lose some of their faculty, particularly because the faculty began to lose hope that they were going to have anybody to teach as a result of the development of the manpower problem in connection with the military service. Some of the members of the World Area Research Committee of the Council became concerned about this and Professor Wendell C. Bennett of the Department of Anthropology at Yale drew up a project for the training of area specialists. Recognizing the government's need for such persons and the desire of the universities to maintain their area centers, a plan was proposed by the World Area Research Committee for government financing for a thousand
students by fellowships comparable to those now provided for under the Atomic Energy Commission. The selection of the fellows was to be handled by a committee of the Social Science Research Council and the financing was to come from government funds, which, as at present with regard to the National Research Council's administration of the Atomic Energy Commission fellowships, were to be distributed through the Social Science Research Council. Because the need for social scientists trained in area and language competence was recognized, the preliminary reception of this project in government circles was a favorable one.

The problem immediately developed as to how the existing area centers could be used to the best advantage. It was estimated that there are now being trained in the United States about five hundred students who intend to obtain a Ph. D. in a social science discipline with language and area competence added. The proposed plan required the doubling of this number and raised the question whether for some areas it would be possible to obtain a sufficient number of teachers. These matters had to be discussed by a group from the universities and a group representing the government if the program was to be carried out successfully. A great deal of discussion has in fact been carried on regarding this plan since January.

The urgency with regard to manpower is now considerably less for the universities than it was in January in view of the new regulations of the Selective Service and the recognition that there are a very considerable number of veterans, some over age so far as the draft is concerned, who are available as graduate students. The urgency from the point of view of the government, that is, the desire on the part of the government for effectively trained people, is however no less than it was. At the present moment, the Civil Service Commission has been requested by Dr. Arthur S. Hemming to organize an inquiry into the total governmental requirements on the one hand and the university facilities for language and area training on the other, and to come up with a report and recommendation for a broad governmental policy which may or may not involve legislation. The SSRC is at present carrying on a survey of a limited number of area centers from the point of view of
finding out the number of graduate students who are studying in various areas, the aim being to make this information available in a general form to the Civil Service Commission. The universities, of course, are concerned about whether or not they must plan on any expansion of their area centers by fall. It is hoped that the SSRC, in coordination and collaboration with the universities and the American Council of Learned Societies, which has assembled information with regard particularly to linguistic and language problems, will be able to make this information available to the Civil Service Commission so that the university capacities may be utilized with the maximum of efficiency and benefit to all concerned.

KENNETH CROFT (Department of State) reported that the State Department sponsors a program of teaching English as a foreign language overseas, through bi-national cultural institutes and often through information centers. At the present time in Latin America alone there are thirty such cultural institutes which are bi-national in character, and there are five being established in the Eastern hemisphere following this bi-national pattern. The information centers, which are directly administered by the Department of State and staffed with Foreign Service personnel, are also beginning to engage in English teaching, that is in teaching English as a foreign language. The problems in this connection are concerned with the staffing of properly qualified people to teach English as a foreign language, the training of such staffs, and also the preparation and production of teaching materials which can be used for teaching English abroad.

In collaboration and cooperation with the Foreign Service Institute, it has been possible to work out two of these problems. First, the people who go out as English teachers, though recruited from the Division of Institutes and Libraries, are trained in a six week course offered twice a year by the Foreign Service Institute for outgoing personnel. Second, the Foreign Service Institute also cooperates with the Division of Libraries and Institutes in the preparation of teaching materials. This is largely handled on a contract
basis by the American Council of Learned Societies, which is sponsoring the linguistic analyses and development of textbooks for the teaching of English as a foreign language to speakers of Korean, Viet-Namese, Indonesian, Burmese, Persian and Turkish. A textbook is also in preparation under ACLS auspices for the teaching of English to Spanish speakers.

HENRY LEE SMITH (Department of State) continued along the lines of Mr. Croft’s remarks by tracing the background of some of the works designed for teaching English as a foreign language. During the war, in the course of preparing materials for the teaching of foreign languages to our troops, it became apparent that the texts were also needed to teach English as a second language to large bodies of people who were in this country under no choice of their own. The Italian and German prisoner populations were the targets for this particular work, but even before that, there were some people in the civil aeronautics part of the government who were very much interested in training technicians in Spanish and Portuguese who could go back and man airports in Latin America and free certain of our personnel in foreign countries for the big push in Europe. Thus there were four languages that had to be treated in this reverse way of teaching English as a second language.

It so happened that the nature of the freneticness mentioned by Dr. Graves was such that the books were prepared very quickly. Although they were useful to those who knew how they were prepared, and why they had to be prepared the way they were, they were not very useful for general purposes or for the purposes of the bi-national cultural institutes that Mr. Croft mentioned. The problem was to get some other kinds of material for these cultural institutes.

The way in which this was handled in the case of Spanish is an interesting example of how these things happen. Henry Holt and Co., the commercial distributors for the materials that were prepared for teaching foreign languages to Americans during the war, knowing that they had a large market for a book to teach English to speakers of Spanish, wanted to take over and
publish the Spanish materials that had been prepared for this purpose. Since it was preferable that a new book should be done, the suggestion was made to Henry Holt, and accepted, that this be financed by some advance royalties to the American Council of Learned Societies. The ACLS then arranged with Cornell University and the Foreign Service Institute to undertake the preparation of a book which might perhaps be the model for others that have to be done for other parts of the world. The project now in operation at Cornell gives promise of producing a Spanish book, the first prepared by linguists and competent people in the field of teaching modern languages, where one will be able to see that it is not merely a matter of a funny looking transcription or some jumbled phonetics plus the same kind of grammar everybody has always done—except not quite so satisfactory. There is something completely, basically different in the way which this and similar books are being done from any books that have been done so far in the teaching of languages.

This whole project, with all the people that are collaborating in it—the civilian universities, the American Council of Learned Societies, a civilian publisher, and two parts of the State Department—is a very good example of the kind of collaboration needed and actually existing in this country in order to meet problems which must be solved. This is a better way to solve them than practically any other way one can think of, certainly for Americans. The more people that will collaborate, the better the product will be received, and the more useful it will be.

Mortimer Graves, in commenting on this particular type of operation, noted that it involves three processes. The first is the securing of an adequate scientific description of the language with which we are concerned—in this case Spanish, Korean, Turkish, etc. Very few languages have been subjected to that process. The second is the development of an adequate description of the world’s most unknown language, that is to say English. Linguists are fond of saying that they know more about Potawatami than they do about English. A large element of the process for the develop-
ment of these English teaching materials is the discovery of a satisfactory description of the English language. The third step is putting these two things together. Obviously, when a satisfactory description of English is available, half the work will be done in the production of these teaching materials.

THEODORE ANDERSSON (Yale University), remarking that the name Institute of Languages and Linguistics represents a happy joining of two fields which have perhaps in the past been characterized by disunity, expressed the view that on the whole the contribution of linguistics during the war served a most useful purpose and exercised an influence on the teaching of languages which was altogether good. Continuation of the influence exercised at that time is needed. Among language teachers, as among authorities in the camp of linguistics, there is need for cooperation in the direction of improving the teaching of languages. Those who are interested in liberal arts and in the view of the whole man should not be too critical if there seems to be a certain emphasis upon a practical aim to be achieved, though the practical aim should also as much as possible be tied in with a total view of man. The language teaching now going on in our universities needs a great deal of improvement, and it is to be hoped that the scientific advances that have been reported and that are in progress will be translated more and more into practical terms. There is need also for greater collaboration between universities and high schools and preparatory schools. One reason specifically for this is that unless students of language see incentives for studying language with the useful object of total control of that language, namely speaking it as well as reading, writing, understanding, they are not going to be interested in the study of language. There is, fortunately, a good deal going on in the way of improving the general situation in language instruction, for example, in the form of organized study abroad. In sum, this is a total problem which interests all aspects of our educational institutions and which calls for cooperation between linguists, if you will, language teachers, but between all educators, between education on various levels, and between all sorts of individuals.
L. C. Keating (George Washington University) read the following paper:

Those of us who teach in universities in and around Washington are aware of the fact that only a small proportion of our college students are language-minded. Most of their interest is in what they define as practical subjects. In our liberal arts institutions this insistence on the part of students that they be furnished with the precise materials for gaining a livelihood is usually frustrated, for the university economists and political scientists, for example, no less than their colleagues in the humanities, usually manage to keep the attention of the student focussed on the theory of the subject rather than on its practical aspects.

The fact that culture is hard to sell, and that language in the students' minds is frequently far down the list of useful fields of knowledge, is a curious situation, particularly when we consider that Washington as a world capital can probably absorb into its governmental and non-governmental working force more people with language training than any other city in the United States. It is a fact, little known, but a fact, that every civil service application blank that is printed asks for the language qualifications of the prospective worker. Further, even in jobs where a language qualification is not required for employment, that is in the clerical and fiscal CAF category, and in secretarial capacities, the ability to use a language is frequently a factor which makes for advancement and security.

This being the case it is surprising to note that there is no centralized government or private agency, educational or otherwise, that attempts to bridge the gap between language needs and the production of those skills. Such disorganization is, of course, typical of the American system, or lack of system, and may even have something to commend it. As it happens, all those who can be convinced of the need for language training can acquire that training in our community. The offerings are varied. Private language schools flourish. I feel very strongly that the type of instruction which they offer is not likely to suit the needs of a liberal education or, except in rare instances, of the seeker after professional
language training, but when I encounter a student who feels that such training will meet his needs I tell him to enroll in the institution of his choice and wish him the best.

The training which most of the colleges offer is different in aim and scope. What can it do? It may be alleged that the liberal arts college with its demand for a two year minimum of study in a single language, usually Spanish, French or German, and less usually Italian, Portuguese or Russian, comes far from meeting any sort of basic educational or governmental need. This is true in one sense. The three-times-a-week-for-four-semesters language course is undoubtedly the half a loaf of the fable. It represents a foreshortening of the five-times-a-week-for-three-years course which many of us knew as undergraduates. Since the allotted time has been foreshortened, we have been forced to accomplish in two years what we used to do in three, and by and large I think we are succeeding. Of course we cannot in two years train a translator, an interpreter, a bilingual secretary by our traditional methods. Yet we can, I believe, provide a sound basis for further study, and, except in the case of its major students, that is all any university can hope to do in introductory courses. Given a decent job of teaching, and a respectable amount of solid application on the part of the student, the two year course can and does do these things: 1) it provides a reading skill, firmly rooted in a knowledge of syntax and the constructions commonly encountered in the foreign tongue. 2) it provides a limited oral ability and ear training. It should further, and frequently does, give the student some notion of the way in which language abstractly considered is used as a medium of thought and communication. When the student chooses to elect a third year of study, we assume at our institution the possession of the basic skills, and upon them we build a literature course in which rapid reading and textual criticism are the rule, or, alternatively, we offer a year's practice with a native speaker in the oral-aural aspects of the language. From these three courses, or only the first two, the student emerges equipped, if he wills to do so, to pursue his language work further and to make himself a skilled reader or translator. Is this too small an accomplishment?
I venture to think that it is not. Two years study of economics do not make a skilled economist, nor two years of governmental studies, a skilled political scientist. Session for session we can, and I believe generally do, achieve as much as colleagues in other fields, and the scant two year minimum can and should provide a worthwhile foundation.

The more specialized effort of our host, Prof. Dostert, is, of course, the envy of us all. In the overall picture of training personnel for language posts, his Institute looms large. The variety of his offerings, the techniques that he and his co-workers have developed arouse our admiration. From the point of view of immediate results his work surpasses that of the rest of us to a point almost of discouragement. But the efforts of the local universities and schools to provide less for more, that is, less intensive instruction for a vaster student body, can play their part in the language training program of which we are speaking. I for one am not discouraged.

In conclusion may I be permitted an apparent disgression. I would like to speak of the widespread tendency, most obvious in the army, but existing in the government generally, to disregard linguistic qualifications when picking candidates for posts requiring language skills. The examples of soldiers knowing French who were sent to the Pacific, while others were given intensive training in French, thereafter to be assigned to Iceland, are legion. And since the war the same practice continues in vogue, and it is to be found in nearly every governmental agency. I recall hearing a government official (one not known for his advocacy of language study, by the way) describe the difficulties of an international conference he attended, where the American delegation were the only persons not conversant with French or Spanish, and where, he said, the translation of speeches was a time-consuming process. When queried as to why someone with the requisite linguistic skill had not been chosen to attend the conference in the first place, he was offended, as he chose to see in the question a slur upon himself, although none had been intended. We have then, I think, a double task, to prepare more and better linguists, and
secondly and no less important, to convince administrators that persons possessing linguistic skills ought to be chosen, other factors being equal, for missions requiring bilingualism. It is a travesty on common sense to continue to train linguists for special assignments, when the man at the next desk may possess already the skills which another is being asked to absorb, with little time for a process of digestion before he is called upon to use them. Training we need, but that is no excuse for burying talents already present under the proverbial bushel.

Manuel G. Martinez (Georgetown University), in comment on the apathy shown by high school and college students toward the study of languages stressed the point that the government does not sufficiently reward knowledge of foreign languages. It fails to recognize as a profession the knowledge of languages possessed by translators, interpreters, and experts in the field of languages. After studying four or five years of French or German or Spanish a student can look forward to a government job paying only around $2,400 to $3,000. Since most students who study foreign languages do so for material rather than cultural reasons, such study must be made attractive by raising the job classification of language experts.

Captain F. R. Duborg (Naval Academy), in response to an invitation from Dr. Graves to inform the audience as to what is going on in the service academies, reported that language study at Annapolis is rather limited owing to the pressure of getting into the four years the other courses which are required as professional tools. Midshipmen are given a choice of one of six languages offered at the Academy. The language is studied three hours a week during the first two years. Those who have previously had some language experience, particularly in Spanish and French, are put into an advanced course and end up with a fair degree of competence. The others are merely given a foundation. No special advantages are offered to students who can use foreign language materials in a particular field of study. It is up to the midshipmen on their own initiative to use the quite comprehensive foreign language materials
in the library. Few have the necessary competence. The solution is to provide a foundation in a language at the grammar or high school level so that the Academy can carry on from there.

LT. COL. W. M. BLACK (Office of the Assistant Chief of Staff, G2) also emphasized the necessarily secondary role of languages in the training of men for the armed forces. It would, of course, be ideal if every army officer spoke one or two foreign languages, as area and language experts are needed for such tasks as setting up bases abroad, interrogating captured prisoners of war and refugees from foreign countries, and translating captured documents such as the department records, comparable in quantity to the National Archives in Washington, which were seized in South Germany and were valuable in proportion to the number of good translators who could be put to work on them. Nevertheless, an army officer is a specialist in many, many ways and therefore if he is a language man or an area man but has other military attributes that overweigh his linguistic and area knowledge he is going to be used for his military aptitude rather than for his linguistic aptitude.

DR. GRAVES welcomed this reminder that language and area competence are often imposed on another competence, so that only infrequently is language and area competence of itself the major and most useful competence. Everyone knows of polyglots who speak fifteen or twenty languages and have nothing very much to say in any of them.

CAPTAIN A. R. MIELE (U. S. Air Force), in noting the emphasis in the discussion so far on textbooks, better ways of teaching, and how much money could be earned after graduation, expressed the view that the language instructor should be imbued with a zeal to impart to students a genuine understanding of the people whose language he is teaching, so that the student, no matter what his field, will on his own initiative go out and try to see what foreign peoples are doing in his particular field. Students are predisposed to welcome such an approach because they are much more
mature, much more internationally minded than those, say, of the thirties.

A. GIDUZ (University of North Carolina) expressed doubts about the possibility of finding the desired zeal in language teachers because one of the curses of our American colleges is that they cannot afford to pay good instructors and hence frequently have to use graduate students in elementary language courses. These are interested, not in instilling fire and zeal into students, but in getting their degrees as fast as possible. They do not have time to prepare lessons and lack the requisite experience. The problem is further complicated by the tendency to prefer inexperienced male instructors to women with years of teaching experience. These facts are recognized by professional language teachers and discussed in professional journals and meetings. Yet nothing seems to be accomplished. Instead of going over the same thing among ourselves there should be more emphasis in spreading the gospel abroad.

M. A. LURIA (Brooklyn College) suggested that the way to improve student competence in language is to initiate instruction not in the high schools or colleges but at the elementary school level, when the child has a mobile set of linguistic organs to work with, a keen sense of hearing, and no inhibitions.

MARTIN JOOS (University of Wisconsin), a member of the American Council of Learned Societies' Committee on the Language Program, sought to convey the feeling of desperate urgency and of temptation toward despair that committee members feel in contemplating the problem of meeting the government's needs for books and other materials for teaching languages, such as the "reverse language books". Linguists have convinced themselves in recent years that in order to teach English properly to a Turk, for example, it is first necessary to know Turkish, and it also helps a great deal to know English in a more thorough way than apparently was the case with makers of certain earlier books.

But the immediately available people with such linguistic skills number only a few dozens. In addition it would be possible to
muster several dozen assistants to work as linguistic apprentices under the fully trained linguists who might, after considerable pressure, be freed from their present academic duties sufficiently to spend a third or so of their time directing the preparation of the materials. The ultimate need is for thousands, not dozens or hundreds, of persons with the requisite linguistic competence.

This state of affairs is due to the lack of contact with foreign language groups and the lack of tradition of interest in or awareness of need for a foreign language. The way in which government agencies neglect language competence or misuse it is simply representative of the American situation generally. The solution must consist in a long-range process of changing the American tradition so that in the future language competence will be extended sufficiently to meet our national needs.

C. J. LEVOIS (Iowa State University) discussed the revival at his university of part of the language and area study program which existed there during the war. The departments of Romance languages, Germanic languages, political science, history, and geography are cooperating in a program involving four areas—France, Spain and Spanish America, Germany, and Russia. Language, rather than area studies, is intended as the central point of the program. This is studied at the rate of five hours per week during the regular session and ten hours per week during the summer session of eight weeks. A minimum of two years of language work is required. The program as a whole is a brief one and is sufficient only for an undergraduate major in the liberal arts college. It is carried on with no aid from the government and no additions to the staff.

FATHER EDMUND A. WALSH, S. J. (Georgetown University) noting that current language programs are designed to meet a great present emergency, suggested the importance of long-range antecedent preparation for teaching the true genius and usage of a language, by paying more attention at the ordinary elementary and high school level to grammar as a science. Anyone who has dealt with college students must be appalled at the disappearance of one of th-
bases of the learning of language, which is to say the structure of the English language. The best method of having students understand the structure of a given language is to understand the importance of universal grammar. Such studies are neglected to the point where there has even been a case of a new student at Georgetown who had never learned the alphabet and hence could not look up a word in a dictionary.

MARTIN JOOS joined with Father Walsh in deploring ignorance of the alphabetic order as tending to cut one off from a large segment of one's culture. Whatever the merits or demerits of the alphabetical order there is certainly great usefulness in remaining in contact with the patterns of one's culture. As to the reasons for the abandonment of grammar study, one is the increased emphasis on subjects like sociology and typewriting in high school. Another is the practice of teaching grammar in too dry and lifeless a way, connecting it with prescriptions of usage rather than analysis of actual speech. It would be possible to set up in schools a rather attractive course on linguistic theory using as material the things that children say all the time; that is, dealing with the actual warp and woof of the English language. But to accomplish this it is necessary to contemplate a shift towards a new, scientific view of language. It would do little good to prepare such a textbook on the structure of the English language and put it into the hands of teachers with traditional training, as they would not understand it to begin with.

MORTIMER GRAVES, in response to a query from Father Walsh as to whether too much pessimism might not be unwarranted since the new awareness of the problem is itself a step forward, expressed the view that in reality a great deal of pessimism is a good thing if it causes people to leave a meeting of this kind with a sort of missionary feeling to carry the message into the world where decisions are made. The kind of activity needed to avoid the feeling of futility alluded to by previous speakers is well illustrated by several projects which the ACLS has been unable to bring to conclusion since the government suddenly lost interest in them at the
end of the Second World War. A perfectly good Korean dictionary was completed before 1945 but still remains, months after the outbreak of war in Korea, on cards in the office of the ACLS. A guide to Korean studies was also undertaken at the same time but remains only half done for lack of the $1,500 needed to bring it to completion. The completion of several other dictionaries, which like the Korean materials would fill existing gaps in fundamental first tools, is also held up for lack of funds.

LEON DOSTERT (Georgetown University) closed the morning session on a more optimistic note about what is being done to meet the government's needs in languages by citing the positive accomplishments in the field of improved language teaching and learning in America in the last fifteen years. Languages are winning a more important spot in the general program of studies all over the country. They might have an even more important place if the achievements and teaching had not been so poor. In the last ten or fifteen years, largely as a result of wartime experience, there has been a new awareness of the need for improvement in methods of presentation. The linguistic scientist has made an extremely significant contribution in stirring up some of the more traditionally minded to the necessity of revising some of their approaches in language teaching.

There is also an increasing awareness among the rank and file of our students, both in the secondary school and at the college level, of the importance of language proficiency, not necessarily as their major objective but as an adjunct to their major objective. Students are genuinely interested in language if the subject is adequately presented to them. The latent interest is, however, frequently killed by inadequacy of presentation. Instead of worrying about the student's lack of motivation and the administrator's lack of understanding, it would be well to see if defectiveness of teaching methods is not also to blame. An open mind for new ideas as they emerge and are tested and prove effective might go part way toward meeting the government's need in languages.
II

LINGUISTIC SCIENCE AND EDUCATIONAL PSYCHOLOGY

JOHN B. CARROLL (Harvard University) delivered the following address on this subject:

I suppose that the title of my address is a bit novel, perhaps even startling. If one were to make a statistical analysis of all that has been written or said on linguistics and language teaching, one would probably find few occasions when the phrases "linguistic science" and "educational psychology" have been juxtaposed. I am therefore extremely happy to have the opportunity of contributing a few such juxtapositions, for I think these phrases sound rather nicely together. I might even be able to show that they have something to do with each other, or at least that they ought to have something to do with each other.

For some time, linguistic science and educational psychology have been walking along the same street, keeping up a careful pretense of avoiding each other, but nevertheless being propelled by a number of common motives and problems. Either they have failed to recognize these problems or they have hesitated to admit openly the extent to which their interests overlap. Now they find themselves in the same bed. I am going to make bold to point out, as a psychologist, some of the areas where linguistic science and educational psychology might find themselves congenial.

First, however, I want to place language in a proper psychological framework. All of you, I am sure, are familiar with the definitions of language which have been offered by linguistic scientists. To resort to a favorite characterization of language, "a language is an arbitrary system of vocal symbols by means of which a social group cooperates." This definition presents the psychologist with a pecu-
liar problem: how can he study anything which is arbitrary? The psychologist, at least to outward appearances, is highly uncomfortable with anything which is arbitrary—he wants to study general fixed laws of human behavior. Leave arbitrary things to lawyers, politicians, and sociologists! So, the psychologist generally leaves language alone. Or thinks he does.

I will give you a picture of a psychologist studying language, but note in this case that the psychologist is quite unaware that he is studying language. He says, instead, that he is studying "concept formation." So our psychologist sets up a situation where the subject of the experiment learns some "concepts." The psychologist prepares a set of cards, on each of which is displayed a different Chinese character. It would not have to be a Chinese character—it could be a painting by Picasso or the idle doodlings of a tired business man—but Chinese characters serve quite well. Then our psychologist rounds up a college sophomore and proceeds to carry out his experiment. He tells the college sophomore that he will present the cards one at a time, each time pronouncing the "name" of the Chinese character. After a few times around, the college sophomore is expected to have learned the "names" of the characters. And surprisingly enough, that is exactly what happens. Not satisfied with this, the psychologist then tells the innocent sophomore that he has another pack of cards with different Chinese characters, but with the same names which were used before. He tells the sophomore to try to guess these names as the new cards are presented one by one. This part of the experiment is carried out, as planned, and, mark well, the sophomore finds himself able to guess at least some of the names of the new characters. On still another trial, he is able to guess even more of them, even though he may not necessarily be aware of why he is able to do so. For, you see, the psychologist has very cleverly chosen Chinese characters with certain radicals: he has uniformly pronounced the same nonsense syllable (like "ler", "deg", or "oo") whenever he presented a Chinese character with a given radical. Over many repetitions the sophomore gradually becomes conditioned to respond to the radical, rather than to the whole character. I propose to
say that he has learned a language—a very simple language, to be sure, but still a language. What he has learned is an arbitrary system of vocal symbols; he has had to learn this strange system in order to communicate with the experimenter in the way that the experimenter wants him to. The system was arbitrary, for the experimenter merely chose nonsense syllables for the Chinese characters. They were not, of course, the real names of the characters in Chinese.

In this simple experiment we can find many of the important features of the behavior of people learning and using language systems. A natural language system is analogous to the language system used by the psychologist in his experiment, even though it is of course infinitely more complex. First of all, the names of the Chinese radicals are vocal symbols; they have a phonemic structure (the fact that this phonemic structure parallels that of English is merely a circumstance which is due to the experimenter’s naiveté in matters phonemic). These symbols can even be said to have a certain elementary kind of morphology and syntax; if the experimenter had been as sagacious as society at large, he could have invested his experimental “language” with a more complex morphology and syntax. Now then, these symbols have what we call “meaning.” Their meaning resides in the fact that the subject (and the experimenter also) has learned to respond uniformly to certain identities or constancies in the material of the experiment. What has the sophomore had to do, to learn to respond in the desired way? He has presumably been motivated to do as well as he could, for one thing; perhaps he looks forward to the approving nods of the experimenter. But even more important than this—the sophomore has had to perceive the identities or constancies in the stimuli presented to him. If the identities had not been there, or if the sophomore had not been able to perceive them, he would never have learned to respond with the vocal symbols arbitrarily chosen by the experimenter. So it is in natural languages. The meanings of linguistic symbols reside ultimately in certain constancies in the environment.

Motivation, learning, perception, response processes—these are
the cardinal concerns of the psychologist. The psychologist tries to discover general laws or principles governing behavior; to this end, he usually reduces the stimuli and responses in his experiments to the simplest possible types. At least, he hopes they are simple. In my opinion, linguistic science would show him that they are not always as simple as he thinks them to be. Take the so-called nonsense syllable, which has been used in literally thousands of experiments on learning and memory. The utterance of a nonsense syllable is actually a rather complex motor act from the standpoint of phonetic theory. The psychologist will usually say that he uses nonsense syllables because they have a minimum of meaning; this is not the real reason, however. The real reason is that a linguistic response like the nonsense syllable provides him with a highly differentiable but easily recognizable response. If the subject is asked to respond by pressing a telegraph key, the possible variety of his responses is severely limited. All he can do is press or release it. But if he is asked to make a linguistic response, the variety is virtually unlimited, especially if the phonetic features of the response are allowed to range over the kaleidoscopic variety existing in the natural languages.

The study of verbal learning has long engaged the attention of the psychologist. It is a matter of regret to me that this study has extended, for the most part, only to the learning of simple associations with nonsense syllables. Bring a psychologist into a roomful of people trying to learn a foreign language, and he will be struck with the variety of fascinating learning activities taking place. Let him look over the shoulder of a person trying to imitate the sounds of a foreign language, or trying to fashion simple phrases in that language, and he will be embarrassed with his ignorance of the precise nature of what is going on. As yet, he cannot tell you much about how a person adjusts himself to utter reasonable approximations to an unfamiliar sound. He cannot tell you how a person should adapt his mental set in order to get the "feel" of a foreign language. He cannot at this time make a psychological analysis of the perceptual processes involved in understanding a sentence or even a word uttered in a foreign language. Unfortun-
ately, most psychologists do not have enough confidence in their linguistic talents to do the research necessary to answer such questions. Yet, I feel, here is a field for investigation, with much promise of yielding results which would be useful to language teachers.

Perhaps my exhortations would be more properly addressed to my colleagues in educational psychology rather than to a gathering of linguistic scientists and language teachers. I have made these observations here only to point out the need of closer collaboration between linguistic scientists and educational psychologists.

I can, however, make certain observations on linguistic science and language teaching from the standpoint of the educational psychologist. The educational psychologist would regard linguistic science as the study of the nature, structure, and development of elaborate systems of symbolic responses. He thinks of language teaching as the process of teaching these elaborate systems of responses. Now, the educational psychologist has confirmed certain laws and principles governing the learning of almost any type of material—whether it be a set of historical facts, the rules of a game, or a language system.

Some of these laws may be useful in settling a number of arguments and controversies concerning methods of teaching languages. One of the famous old laws of learning is that of association by contiguity. It states that two things can become connected only by being experienced together. Foreign language primers exemplify the use of this law when they place a series of English and foreign language words in parallel columns. The student is expected to learn to associate the English word with the foreign word. We may now ask, however: is this the association we want the student to learn? Don't we really want the student to learn the association between the foreign word and its referent? We want the student, for example, to respond with "l'étoile" when he sees a star, not merely to associate the English and French words. It is this over-emphasis on translation, in traditional language instruction, that hinders the student in trying to think exclusively in the foreign language. As an educational psychologist, I would make the
general observation that foreign language instruction should be planned so as to present the learner with the most useful and desirable kinds of association. Audio-visual aids, or anything which makes the instruction "realistic" and "situational", will help in accomplishing this objective.

But learning by association is not enough. The laws of frequency, recency, and intensity were once very popular among educational psychologists. They were offered to explain other factors in the learning process. These laws stated that the more frequently, the more recently, and the more intensely a given response has been practiced, the better it has been learned and the longer it will be remembered. These laws are now in considerable disfavor among psychologists; yet, they are the basis of the common belief in lay circles that "practice makes perfect." This idea seems also to be the basis for the "mim-mem" approach in language teaching—the system whereby foreign language phrases are to be imitated and repeated over and over until they are well-established as habits. Now, I said that the law of frequency—otherwise known as the law of exercise—is in considerable disfavor among psychologists; the reason for this is that the law of frequency needs an important qualification: repetition leads to better learning if other factors and influences are favorable. Practice does not necessarily make perfect unless the student is motivated to learn, unless errors are corrected promptly, and unless the student attains a new conception of the task. Any procedure in language learning which emphasizes practice by repetition, therefore, must be carefully planned and controlled. The student should not be allowed to indulge in aimless repetition; instead, repetition must always be goal-directed. Ideally, errors should be instantly corrected and explained. Anything that can be done to help the student understand the task to be learned will save a good deal of time. There are, after all, many things which can be learned in only one trial. In general, a child needs to touch a hot stove only once to learn to avoid it.

The law of learning which is now considered of paramount importance is the Law of Effect. This states that the learning of a
response depends upon whether it has an effect which satisfies the individual. In other words, learning depends upon motivating influences. A response which is rewarded is thereby strengthened. A response which is punished or reproved is thereby weakened. It is held that reward is more important than punishment, so let us consider what kind of rewards or rewarding situations can be used in language teaching. I am not talking about some infantile system of silver and gold stars for good performance. Instead, I want to consider how we can set up the learning situation in such a way that the student learns precisely that which is rewarded. Let us assume at the outset that the student is motivated to learn a foreign language; if he is not, he ought not to be in our classes, or at least we will have to use some external means to motivate him. To refer to another famous experiment in psychology, let us imagine that the student is like the hungry cat in a puzzle-box. The food, you know, is outside the box, and the cat must explore the box until he finds the string which pulls the latch and lets him out. By trial-and-error behavior, the cat will eventually learn to pull the right string every time. Now, our foreign-language student is infinitely more sophisticated than the cat; let us supply the student with a wide variety of linguistic responses and tell him that he has got to solve certain problems, or adjust to certain situations, by finding responses which will solve these situations for him. Let the situations, if possible, correspond to urges he is likely to have in real life. Let him guess the location of a hidden object, or get the lights turned on, by choosing the proper linguistic response in the foreign language. Make it tough for him, if you wish, by insisting that he utter the phrases with proper pronunciation. If he utters the right responses in the approved way, the reward will be immediate, rather than the reward he might get in the form of a good grade at the end of the term. This type of instruction corresponds to the way in which a child learns a language—by the immediate rewards he gets for using the proper conventionalized responses. The only difference is that with older persons we can intellectualize the task—there is no objection to telling the student, in a friendly but systematic way, something about
the phonemics, morphology, syntax, and lexicon of the language he has got to learn. The point is simply that the student learns best by getting immediate and inherently appropriate rewards for what he learns.

I could go on to speak of other principles of learning which can be applied in language teaching. For example, there is the principle that in learning complex activities one must integrate the simpler units of behavior before proceeding to higher and more complex units of behavior. According to this principle, the practice and repetition of materials in a foreign language should start with elementary syllables, then proceed to words, phrases, and sentences, in that order.

As an educational psychologist, I am not really interested in the distinctions between various so-called methods of teaching foreign languages. No valid psychological differentiation can be made, for example, between what is called the "reading" method and the "direct" method. If there is any difference between these methods, it is one of content and objective. Either of these methods may or may not be efficiently planned, depending upon whether appropriate psychological principles of learning have been followed. Whenever the educational psychologist is consulted with respect to any program of instruction, he merely says, "Decide upon the objectives of the instruction and decide exactly what you want to teach: then I will help you organize your instruction for optimally efficient learning." With respect to the objectives of the instruction, the educational psychologist has nothing to say unless it is a question of integrating the behavior to be learned with some other kind of learned behavior. For example, if the educational psychologist is told that a program of instruction is designed to teach a person to speak, read, and write Arabic, he has nothing to say, until he is told that this is for the purpose of preparing the person to be a foreign service officer; at this point he might want to ask some questions about the exact way in which knowledge of Arabic is relevant to being a particular kind of foreign service officer. In the matter of the content of instruction, again the educational psychologist has little to say except occasionally to point out, politely, that
some item of the proposed content has nothing to do with the objectives of the instruction. Suppose that the program of instruction has to do with teaching American children to speak and write English according to accepted canons of expression. Then an educational psychologist who is linguistically sophisticated can properly point out that the teaching of certain things about English grammar has nothing to do with the objectives of the instruction. He would point out that there is no value in teaching folklore about English grammar unless possibly to inform the student that it is folklore. Finally, when the educational psychologist comes to consider the organization of instruction, the manner in which material is presented, and the nature of the learning activities planned for the student, he is guided by a number of simple but general principles of learning. Some of these principles I have tried to indicate; I have also tried to illustrate their application. My only regret is that the educational psychologist has not yet done enough research specifically on language learning: his principles of learning are generally and widely applicable, but there are undoubtedly new principles waiting to be discovered, specifically bound to the learning of linguistic materials.

I should like to turn to another aspect of my theme. Educational psychology is concerned with the principles underlying the teaching and learning of all kinds of desirable behavior, as well as with the unlearning of undesirable behavior. Linguistic science is concerned with the analysis of language systems. But language systems reside only in the actual or potential behavior of individuals. In any speech-community, the language system is the vehicle for the communication of what are commonly called thoughts, ideas, attitudes, commands, interrogations, and so forth. It is often held that the private thoughts of the individual are made possible only by the fact that the individual has a language. This view can probably be sustained only after considerable qualification, but I shall not argue the merits of this proposition here. I want simply to draw attention to the fact that all the intellectual activities emphasized in our schools, whether rightly or wrongly, are mediated chiefly by language. Not only intellectual activities, but also attitudes of
good character, citizenship, and morality—all are transmitted by linguistic processes. At any stage in the child's development, what can be taught him depends to a large extent upon his linguistic equipment. Small wonder, then, that educational psychologists like the late Edward L. Thorndike have poured much effort into the investigation of the linguistic equipment of the child and linguistic symbols to which he is more likely to be exposed at a given stage in his education. I do not know whether this type of investigation would ordinarily be regarded as linguistic science, but I am of the opinion that it is a branch of linguistic science. Whether it is or not, does not matter. What does matter is that such investigations are necessary in the improvement of educational methods and procedures.

Investigations of word-frequency are at a comparatively low plane of complexity. I wonder what would happen if we tried to make an analysis of the development of concepts from the standpoint of linguistic science.

Let me illustrate the kind of problem I have in mind. One of our students has recently completed an investigation of the development of scientific concepts in elementary school children. He desired to see whether these children had any idea of the principle of the lever, and if not, whether they could be taught this principle. He constructed several toys which would utilize this principle. By working individually with the children he attempted to teach them by an inductive process. The verbal behavior of the children during these experiments was recorded on tape and transcribed. Much to the surprise of the investigator, the majority of children in the second and third grades easily learned the principle of the lever and showed themselves able to transfer the principle to a new situation. Now, the principle of the lever is a concept with which even some high-school students seem to have difficulty. How can second-graders grasp it? In this case, I think, pains were taken to present the material to be learned in the most vivid fashion. The teacher used only the simplest language. The concept was reduced to simple relationships with which the child was already familiar, with words
like "heavier", "lighter", "nearer", "farther". Thus, the teaching was carried on in terms of the linguistic equipment already possessed by the child, rather than in terms like "mechanical advantage" which are likely to puzzle even the high school student.

A problem in which I have long been interested is what I have called the "linguistic Weltanschauung" problem, by which I mean the question of the way in which a particular language structure analyzes experience. I entertain the hypothesis that a careful study of the structure of English might reveal those characteristics of structure which make it possible for us to talk in the simplest terms about physical events, for example, and thus to prescribe the manner in which elementary scientific concepts can best be taught. Since what are commonly called "concepts" are chiefly linguistic in nature, I believe we cannot study conceptual development without reference to linguistic structure. In this light, it may be that some sort of linguistic science, as yet undeveloped, may be called upon to serve in the preparation of programs of instruction, not only in languages and the language arts, but also in many other subjects in the school curriculum, such as the sciences.

If I were to try to put a relative weight on the contributions of linguistic science to educational psychology, as compared to the contributions of educational psychology to linguistics and language teaching, I would have great difficulty; in any case, I am sure those weights would not be zero. Having created several more juxtapositions of the morpheme-groups "linguistics" and "educational psychology" in the last sentence, I think it is time for me to close.
III
LINGUISTIC THEORY AND PEDAGOGICAL APPLICATION

CHARLES A. FERGUSON (Department of State and Georgetown University), the chairman of the panel, opened the introductory session on "Linguistic Theory and Pedagogical Application" with some comments on the first topic under this heading, namely "The Content of an Introductory Course in Linguistics."

Introductory courses in linguistics have been offered in American academic institutions for many years. Most of the people who took these courses intended either to become philologists or perhaps anthropologists with some understanding of linguistics. There was, of course, in addition that small group intending to become linguistic scientists themselves. But the elementary linguistics course which is intended, not for specialists, but for the general undergraduate, or more particularly for the undergraduate who is going to take some foreign language, is a relatively new phenomenon on the American scene. Since this Second World War, especially, courses of this kind have been appearing in various universities throughout the country. Almost all the members of the present panel have specifically been engaged in teaching elementary linguistics to undergraduates in various institutions.

Since the term "linguistics," and especially the term "linguist," are used in so many different senses, it is well to review this subject again. In the first place, in various high schools, colleges, and universities, there are all sorts of courses dealing with language problems in general and not definitely with a given language. Such courses may be called general language courses, or courses in communications, courses in semantics, and so on. In some cases the material covered in these courses may be included in the field that is being referred to here as linguistics. In other cases the material
of these courses may be marginal. The term "linguistics" as used here today is that field which was defined by Prof. Carroll, that is, the scientific study of language, and the term "linguist" is used not in the traditional sense of one who speaks many languages but as a short form for "scientific linguist" or "linguistic scientist."

The scientific study of language is a quite different thing from teaching people how they should talk or from teaching people grammar or something of that sort. A course in linguistics is a course which makes clear the nature of language, explains human linguistic behavior and discusses the structure found in any given language or in all languages, deals with the techniques for describing that structure, the changes that take place in language, the variation that exists in languages, and various other special points under these general headings. In addition there are the specific problems of the application of linguistic science to various practical problems. One of these practical problems is the teaching of foreign languages. This particular aspect, that is, the value of a general elementary linguistics course for students of foreign languages, is the main interest of the present discussion.

The problems connected with giving an introductory linguistics course are many and varied. The members of this panel are aware of many of these problems and have come up with different solutions for them. Some of the problems are inherent in the very course itself from the point of view of what is the purpose of the course, what kinds of students are taking the course, and what is being attempted in the course. Other problems come from such things as lack of good materials to use in such a course, what textbook should be used, how many hours a week should be devoted to the subject and similar practical problems. In addition there are problems involved with the conflict between linguistics and what might be called the folklore about language and our own culture. Most of the elementary linguistic courses must be devoted to debunking a lot of notions generally accepted about languages.

R. Ross MacDonald (Georgetown University) recounted what he had done in the past year at the Institute in his first attempt at
teaching a course in linguistics for a group which consisted of all of the language students who were taking their first year of some particular language. The first question was what to put into the course. These people had no intention of becoming trained linguists and in fact not even very many of them probably intended to become language teachers. It was decided to give the students everything in the field of linguistics in the hope that such a presentation would reveal what was good and what was bad. What emerged from this was a list of don'ts for prospective teachers of linguistics which is positively staggering. It was found that a definite modification has to be made in the nature of the material presented, as compared with the sort of material which is presented to professional students of linguistics. The question remains as to what things should be presented to people who have only a marginal interest in linguistics.

Another discovery from this initial experiment is that the order of presentation of the material is relatively important. It is now clear that it is absolutely necessary to take up things like phonetics and phonemics at a very early period in the student's training in his language. In this way at the very time when he is having difficulty learning the pronunciation of the sounds in the language he is dealing with, he will be getting a certain amount of theoretical explanation of how sounds are made, the structure of the various languages from the point of view of their sound systems, and things of that general description. The old traditional attitude of starting in with sound change and then working through everything must be abandoned. It is preferable to present more real types of change to the student first and then proceed to the less real but none the less existing changes.

One of the difficulties with giving a course in linguistics to a group of students who are studying a language at the same time is that much of the material is lost if, while linguistics is being presented, the various language courses are being given with no account of linguistics at all. It was also found in the matter of presenting materials to students that it is impossible to give a course in linguistics without using examples. When the students come from
varied backgrounds, some of them knowing perhaps only one language aside from English, it is rather difficult to find sufficient examples to get one's point across. If sufficient examples are actually found and they are too limited to one particular language or one group of languages, one loses the attention of all the members of the class who do not know anything about that language or group of languages. The question arises as to how many examples should be used and whether the student should be expected to make allowances for the fact that the best examples of a particular point occur in Tagalog, say, and nobody in the class knows any Tagalog. Or should one stick to English, which they all know, and have examples to quote which are not quite so good?

There are at least three problems which it would be well to have discussed by more experienced teachers of the general linguistic course. First, how does one choose what goes into such a course in linguistics? Second, how does one manage when one is in a background that is not linguistically oriented? And third, how does one manage to keep the interest of students fixed on the examples when they do not know too much about the languages from which the examples come which were presented?

Beside the course given for the students here it was arranged to have a series of seminars which all the members of the faculty would attend and at which various subjects related to linguistics and language teaching would be taken up. The results have been in some cases good, in other cases not so good. Altogether, the faculty seminar this year has perhaps proven to be rather too nebulous and really needs tying down to something more concrete.

George Trager (Department of State), who was introduced by Dr. Ferguson as one of the linguists in America with probably the most varied experience in the elementary linguistics course, disclaimed knowledge of the answers to the questions raised by Mr. Macdonald owing to the difficulty of assessing the results of his experience in teaching classes ranging from graduate to undergraduate. Students in the linguistics courses in graduate school were of two kinds—people who were intending to become linguists, and
people who were students of anthropology who were told by their
directing professors that they had to have a course in linguistics.
Some of them did not mind being told that, some of them very
definitely did mind. In such a mixed class, some were interested in
every detail of theory. Others were completely uninterested in any
detail of theory and merely wanted to get through the course and
perhaps learn out of it enough so that when they encountered an
object of anthropological investigation they could ask the name
of the object in the native language and then write down some-
thing which could then be put into the body of their report
in, usually, rather strange looking characters which gave an air
of authenticity to the work. It is difficult to tell what effect a
graduate course in linguistics has on such students. Undergraduate
courses in linguistics attracted mainly students from anthropology,
in which department the course was given, and very few from
the language departments, which did not look with favor upon the
department of anthropology.

On the other hand, in the Foreign Service Institute of the De-
partment of State cooperation is constant and complete in that all
the people who are in charge of language courses are themselves
trained linguists and either give the general course or the specific
course designed for their particular group of language students or
participate or are aware of what goes on in it. Despite this com-
plete cooperation, some students take to the course, some do not.

Although there is no body of knowledge, based on such things
as educational psychology, which would make it possible to state
what is the best way of presenting the ideas of linguistics, students
of language should learn such ideas, for linguistics is a body of
knowledge which everyone ought to know something about.

DR. FERGUSON, remarking that Dr. Trager's apparent pessi-
mism probably did not exactly reflect his actual belief in this case
in view of his insistence on teaching linguistics to elementary lan-
guage students, added further details on the various kinds of lin-
guistics courses being given in the Foreign Service Institute of the
Department of State. One general linguistics course is primarily
for people who are going to teach English in the cultural institutes
and other organizations in various parts of the world. This course
aims to give a general introduction to linguistic science and, sec-
donly, some picture of the structure of the English language and
some of the problems involved in teaching English to someone who
speaks a language of different structure. The other kind of lin-
guistics course which is commonly given is in the nature of a semi-
nar, a regular weekly or in some cases even daily seminar accom-
panying full time intensive study of a foreign language. For exam-
ple, if there is a Russian course being given eight hours a day, then
sometimes one hour of that eight hours may be devoted to discus-
sion with a linguist. Some of this discussion is in the nature of
introduction to linguistics, some of it is in the nature of the expla-
nation of the structure of the Russian language or various other
problems involved.

ARCHIBALD A. HILL (University of Virginia) read the follow-
ing paper:

In previous discussions at this forum, we have had excellent
statements of what a beginning course in linguistics for college stu-
dents should contain: material which can be summarized as some
notion of the structure of his own language in more realistic terms
than those of school grammar, the notion that other languages
necessarily differ from his own, and a workable terminology that
can be applied to the phonetics and structure of other languages
when he meets them. It has been suggested that such material ought
to be given to the student in his freshman year, so that it may be
of use when he begins the study of foreign languages. Needless to
say, with all these suggestions I am in hearty agreement.

There is, however, a fatal difficulty that is going to make the
establishment of any such program extremely difficult. This is
that the obvious and natural place to give such training is in the
freshman English course, and yet not one English teacher in five
hundred is equipped to give any such training. The problem of
getting proper linguistic knowledge into the hands of students soon
enough for them to use it, becomes one of training the teachers,
and one not of training foreign language teachers, but of training teachers of English. In other words, we cannot go at this problem as if the organization of a beginning college level course for practical purposes were the whole of it. If we are ever to have such a course we must also re-examine the linguistic requirements for the Ph. D. in English, and see that they add up to knowledge which will ensure that no college teacher of English is linguistically naïve.

If we are to accomplish this aim we have a job of persuasion on our hands, and I think I know the direction the persuasion must take. English teachers have, I am afraid, a well developed attitude toward linguistics, which is that by virtue of being scientific it is necessarily materialistic, narrow, and impractical. Many English teachers have been exposed to an older type of linguistics which they have found of little use in expounding the beauties of Wordsworth, or in correcting the split infinitives in Johnny's themes. They are therefore convinced that linguistics is for the specialist, and can safely be ignored by the student of literature. Now I believe that most of us would agree that such an attitude is false, if for no other reason than that since literature is a special use of language, it would theoretically be advisable for the person who wishes to talk about literature to have some knowledge of the medium in which literature occurs, just as it is a good idea for a painter to have some knowledge of pigments. A part, then, of any linguist's activity should be directed towards pointing out the mistakes that students of literature make when they make literary statements out of linguistic ignorance. I am thinking for instance of a current literary book by a critic of international standing who begins by making the unverifiable statement that what he rather inaccurately calls a 'long a sound' has peculiarly effective emotional force in suggesting the pains of parting, and then goes on to praise a couple of lines of Shakespeare as having a wonderfully subtle peal of 'a's.' Unfortunately for the critic there are seventeen syllables in his lines, and though a lot of them are spelled with the letter a, only two of them are examples of the sound he is talking about. He was, in short, totally confused between sounds and letters, and succeeded in vitiating whatever he had to say by that confusion.
But successful persuasion cannot be merely negative. We must show by our research that linguistics has a relevance to the study of literature which scholars do not yet realize. There is, it seems to me, only one way in which this can be effectively done. Linguists have of late begun to realize that a linguistic analysis of literature is of importance to linguistics, since it offers an avenue of making one kind of bridge to the study of meaning, a central problem in modern linguistics. Such an analysis of literature, if it can be successfully constructed, would for all time demonstrate that linguistic knowledge is one of the tools of the student of literature, which he cannot afford to be without. Linguists who are at present interested in one phase or another of such a study are Professor Firth in England, Professor Harris at Pennsylvania, Professor Sebeok at Indiana, and in a small way, myself. One can even begin to see the outlines of such a study, at least dimly. It makes use of the symbols of symbolic logic, reduces a literary utterance to them, and tests the reduction by the structure which results. If those of you who have literary interests are horrified by the thought of an analysis of a poem which makes it look like an algebraic equation, there is a soft answer possible. Such an analysis may fail, but since it seems to hold out some hope of greater knowledge, it must not be condemned until it has been fully tried.

Such a job of persuasion, then, calls for a long-range program. There are shorter term projects which are also of importance. We need to point out that courses in Beowulf and Chaucer are not linguistic courses merely because the student must learn dead forms of our language. I am not saying these are not valuable courses. I am merely saying that they are courses in literature, and ought not to be described as linguistic. Similarly, even courses in Gothic, though they are linguistic enough, do not meet the sort of requirement I have in mind. Such courses are primarily historical, and are of no direct use to students of later literature.

We can, I think, conclude with some positive suggestions for what the content of an ideal required course in linguistics for prospective teachers of English should be, keeping in mind throughout the principle that such a course should demonstrate at every step
that the knowledge it imparts is directly useful to the English scholar as English scholar, not merely useful to him when he wishes to become a linguist. Such a course should give every teacher enough knowledge of phonemics so that he can put his own speech into some kind of phonemic statement. He should be made aware that phonemic systems in other dialects and other languages differ from his own, and finally he should have enough practice in analysis to be able to apply analysis to other phonemic systems when the need arises. He should have it demonstrated to him that the conventional form of literature—whether, say, it employs stress patterns or length patterns in verse—is dependent on the phonemic structure of the language in which the verse is written. He should also have it amply demonstrated to him that English spelling is an inefficient imitation of the phonemics of the language, not what he probably believes, that English speech is a slovenly imitation of spelling.

On the meaningful levels of language, he should have some notion of the basic entities (morphemes, constructions), of the relation of these to each other in the total structure of his own language, and how they differ from the other linguistic structures of the world. He should have some notion of the problem of meaning, and have it demonstrated that one cannot define either form classes or individual words simply by pointing to the objects they designate in the outside world. Such knowledge should give him a way of going at literature less naïve than the assumption that the meanings of its words are completely described in dictionaries, and even suggest to him that literature, like language, has structure. He would have at the end of such a course the equipment necessary to make linguistic judgments in a fashion better than that of school grammar, and to make literary judgments without falling into the traps which ignorance now lays for him. In his literary activity it might even be hoped that the effect of linguistics towards breaking down the narrow ethnocentrism characteristic of those who do not know the multiplicity of linguistic structures, would make him more willing to admit that literatures other than his own could be worth studying, even if the literature in question was produced by a naked savage. How long would it take to produce such mellenial
excellence in English teachers? A long time of trying to reach all the youngsters being trained year by year, perhaps, but for each youngster no more than two semesters—a good deal less than is now spent in some institutions on Gothic and historical grammar.

GORDON FAIRBANKS (Cornell University) discussed the teaching of the general linguistics course at Cornell. In the case of all languages except the classical languages and English, all language teaching is under the control of a technically trained linguist and there is complete cooperation between the language teaching and the linguistics. That is not true in the case of English courses. A course in general linguistics has been offered at Cornell for the last five years. At the beginning it was taught cooperatively. All five of the technically trained linguists at Cornell took part in each session of the course, one person being in charge of giving a lecture and other people throwing in remarks from time to time. This proved to be a most unsatisfactory way of teaching linguistics to undergraduate students, because what happened was that the linguists talked to each other and not to the students. The latter sat by and listened but found that it was not particularly helpful to them to have the linguists discuss advanced technical problems when the basic elements of linguistics had not been treated properly. This method of teaching linguistics has since been replaced by a course in general linguistics which rotates from year to year among the five linguists. Sometimes other linguists were not only invited not to attend the course but were specifically prohibited from coming to the sessions. This has been a little more successful. It has succeeded more or less in a way reflected in the panel discussion today. Most of the speakers have presented a rather pessimistic viewpoint of linguistics. This is not the general feeling among linguists, but what happens when a group of linguists gets together is that they worry about making a statement categorically in a field that has not been investigated for too many years for fear some other linguist may object to the statement they make. This difficulty existed in the linguistics course at Cornell.

The linguistics course is offered mainly to undergraduate stu-
dents who are for the most part specializing in some sort of lan-
guage study. They may be specializing in French, for example, 
with the intention of teaching French after they graduate from 
college. Other students are people who intend to specialize in lin-
guistic science. There are also students from anthropology who, 
as in Dr. Trager's experience, are sometimes interested and some-
times not.

One of the most important aspects of the general linguistics course 
has to do with the fact that if linguists happen to write a textbook 
making use of the structure of the language as they know it, ana-
lyzing the language according to the generally accepted principles of 
linguistic analysis, then they find that they have a textbook which 
very few people know how to use. The linguistics course turns 
out a few people each year who learn something about linguistic 
analysis, even about methodology of language teaching. Some of 
these people go into high school teaching of French, German, Span-
ish, and occasionally Russian, and some of them go into univer-
sity teaching of languages. Slowly a group of people is being de-
veloped who know enough about linguistic science so that they may 
be able to use textbooks which linguists are inclined to think and 
certainly hope are an improvement on the type of textbooks usually 
found now for teaching elementary language work.

In teaching linguistics generally one problem that is very acute 
is a problem that has been mentioned several times at this meeting, 
namely, the necessity to debunk a good many common notions 
about language. Most people believe that since they are speakers 
of a particular language they are thereby qualified to make 
statements about the structure of that language, although it is not 
generally held that because people are in possession of a body they 
are thereby capable of administering to ailments that the body may 
have. It is usually felt that in that case it is necessary to go to 
somebody who has studied in that particular field of work. The 
matter may be handled in one of two ways. One is a method which 
has been referred to as shock treatment, by which one tries to point 
out how ridiculous certain things are and, having gotten that 
across, one points out what might be a more rational statement of
the affair. This particular method is highly objectionable. Yet if it is not used it is necessary to spend a good deal of time during the course of the linguistics work building up sympathy among the students so that they will accept one's point of view.

Henry M. Hoenigswald (University of Pennsylvania) read the following paper:

I have asked to be put on this panel toward the end of the discussion, because what I wish to deal with is in a well-defined sense secondary. I do not at all mean to say it is unimportant, but it must not, in the nature of things, come first. Our course at the University of Pennsylvania is given jointly by the members of the Department of Linguistics. It is roughly divided into a descriptive and a historical half, and I would like to say a few words about the role of the latter (which happens to be my responsibility in giving the course). This role, as I have mentioned, cannot be basic. As theoreticians we are agreed, I think, that structure comes before history, and as teachers we know that whatever usefulness we claim for the Introductory Course derives principally from the unhistoric here-and-now approach, from analysis of structural types and of the problems of translation and learning which arise when structures interfere with each other. If we are to consider the teaching of historical linguistics as the first need in the Introductory Course, we would be catering to a prejudice which we are out to dispel, or at least to a predelection which we must seek to reduce to its proper proportions.

It is said that if you ask an educated man what a thing is he will answer by recounting its history, beginning with ancient Egypt. On the other hand, if you ask him why a thing is so and not otherwise he will come up with a priori explanations in terms of qualities, properties, tendencies, etc. This is particularly true when it comes to language: our popular monolingual dictionaries still start out by giving us an etymology (after all, according to etymology, the word "etymology" ought to mean "true meaning"!) before going on to definitions or samples of usage. Somehow it is assumed that the user of the dictionary is getting essential information when he
is told that *bounce* was in Middle English *bunsen*. On the other hand, when people discuss the question *why* the word *bounce* should mean what it does, the answer is likely to be in terms of sound symbolism, similarity to other words with similar meaning, the peculiar genius of the English language, or the like.

People are shocked when they learn how linguists with their characteristic contrariness like to put matters the other way round. To us a linguistic form is defined by the combinations in which it occurs (and note that this includes its meaning). This answers the question *"what."* As for the question *"why"* a given form is what it is, we can only say, as Bloomfield did, that speakers use it either because their parents used it, too, or else because some process of change (which we claim we can understand) intervened. This, I say, shocks our students, especially those who are well read and conversant with tradition. But once they have grasped it they are in a position to see in correct perspective, and to fit into what they were taught earlier on the descriptive side, the enormous wealth of material which is available as the result of generations of historical scholarship in the better-known language fields. What is essential is that they should not approach these data as historical oddments and curiosities, for otherwise they will never understand that real, systematic etymology is not arbitrary guessing. *Words and their Ways in English* is a charming book and it may even, in a crude sense, awaken interest in matters linguistic, but it will leave the reader with the impression that all is fair in language history; contradictory principles are made available to be used at will; and particularly those who are at the same time exposed to science will be quite convinced that language is not amenable to any kind of consistent handling.

A student should learn that while the *history of a word* does not give us its true essence or anything of the sort, what happens to words in history, viewed as a whole, tells us a lot about their true essence, that is, about the structure of language. Language history is change; change consists of the redistribution of the elements of the language. Therefore the understanding of change often leads to the identification of the true structural elements in the language.
In this sense the relation between history and descriptive insight is not unlike that between pathology and physiology. Our culture being as historical-minded as it is, it is not surprising that many of our structural entities were first identified in connection with historical change. The phonemic principle was first found in the guise of the doctrine of regular sound change. Our science has grown in this way, and there is a deep pedagogical significance in introducing our students to our science by retracing its growth. Historical linguistics, though it must not come first, has a pivotal role, for it gives us a chance to teach the student how to approach information that he knows as interesting and highly regarded historical lore from an entirely different point of view. It provides us with a concrete, palpable, even technical illustration of the position of the field which we call the humanities: an aspect of the social sciences, if you will.

Why is it necessary to say these things? Because our point of view, academically speaking, is somewhat endangered from two neighboring and, on the whole, friendly, sides. There is the danger (of which I have spoken) of overrating history, or rather of giving it a wrong, romantic emphasis. Since scholarship in linguistics has for a long time meant historical linguistics, etymology in the widest and best sense of the word, leaving descriptive definitions aside and taking them for granted, this danger is most likely to come precisely from the linguistically interested, well-trained circles among the language teachers. Then there is the other extreme with which the anthropologists and sociologists threaten us, namely the neglect of any kind of history. Just because they are anthropologists and therefore capable of seeing in our own society the things that make it different from other societies, they should be impressed with the importance of historical thinking in the Western world; they should be able to see the unique educational usefulness of reformulating history. With all due modesty, linguists believe they can do this particularly well, due to the self-contained, finite nature of their subject-matter.

The business of teaching historical linguistics by building squarely on descriptive concepts and leading up to the integration
of historical information into the analytic descriptive framework (rather than by starting out from traditional historical interest) presents certain technical problems. I have found it useful to begin with a discussion of semantic change. Though semantic change is in a sense vague, difficult to hold down to classifications and seemingly more apt to reflect all kinds of haphazard, external, non-linguistic influences, the fact that semantic change should take place is easy to understand for a person who understands something about the nature of meaning in the first place. It was Hermann Paul who said that whenever a speaker uses a form in a new construction (sentence, context), he thereby contributes to extending its meaning. Thus, semantic change is part of normal speech activity. So are the various types of borrowing part of normal speech activity wherever there is contact between people with differing speech.

So-called analogical change involves a redistribution of forms (as when -s is extended at the expense of umlaut in cow-s replacing "kye" [kine]), like semantic change, and even more plainly than semantic change shows the proportional pattern that gave it its name. But unlike semantic change, analogical change in the stricter sense affects the more narrowly regulated alternants of one morpheme rather than the more freely competing morphemes. Thus, while the shift of meat (the famous example) from "food" to "(edible) flesh" can be understood as the effect of obsolescence (in certain sentence contexts) and extension (to certain other sentence contexts), and hence as the cumulative effect of little steps all part of ordinary speech activity, the question of why analogical new creations become acceptable is more difficult. Children will say foots, but unlike cows, foots has not been received into the language.

Finally, sound change remains the most difficult thing to account for. Change of meaning takes place all the time; analogical new-formations suggest themselves all the time, and, given a chance, somehow become common property. But no speaking individual, we feel, will say ling instead of cling in the normal course of speaking his language; and yet at a given point in history some speakers of English change from k-now, k-nit to (k)now, (k)nit. Thus, sound change and its assumed regularity must be introduced dog-
matically, the various ways in which sound change may alter a phonemic system must be analyzed and illustrated from actual material, the algebra of the comparative method must be worked out and similarly illustrated. This furnishes an opportunity to deal with the concept of language relationship which must not be confused with typological affinity (a point on which students with anthropological interests are not always easy to convince), and in general to show what historical grammar and etymology are. At the very end there is room for some speculative discussion on what are called the causes, or better, the mechanics, of sound change and on the presumable relation between borrowing and sound change.

None of the other speakers on this panel has said anything about the very practical problem of a textbook for the introductory course in linguistics. Of course there is no one textbook to be used directly. But in this field it is perhaps easier than in some other subdivisions of linguistics to assign readings from various works. Hall’s *Leave Your Language Alone* is in many ways a useful book to start from. Our little points of disagreement with some of the things he says more or less belong in the sphere of detail which seems magnified to us when we are engrossed in technical problems and which, as Mr. Fairbanks has just said, do not justify pessimism.

**ROBERT L. POLITZER (University of Washington)** reported some of the arguments in favor of the introductory linguistics course which he and his colleagues are using in the attempt to persuade the language departments and other departments of the desirability of such a course. The first argument as to why a student of elementary language should have a linguistics course has to do with the doctrine of interest as taken from educational psychology. Language is studied more effectively if there is an interest in the subject matter, and the principles of linguistics would create an interest that is pertinent to the course itself. The second argument stems from the fact that the average mind apparently has some resistance to the study of language since there is no logical connection between the language to be learned and the language of the learner, nor is there any logical connection in language between the symbols and the objects which are signified by those symbols. If language is an arbi-
trary system of symbols the only place where logic comes in is in the system. If the student can be shown the aspect of system in a language it is possible to break down his resistance, which manifests itself in naïve questions like "Why don't they say it the way we do?" The third argument that a course in linguistics should be given affects the position of the language departments in the school curriculum of today. Colleagues in the social sciences oppose the general language requirement and argue for required language study only in those cases where language is very definitely useful. In order to counter this position it is necessary to stress language as a subject rather than as a skill by presenting with the language course a valid subject matter, the subject matter of linguistics, which means changing the language course from a course which presents a skill to a course which presents a subject matter in the same way that psychology or any other social science presents a subject matter.

Leon Dostert, describing himself as an all too rare example of a traditionalist language teacher who is receptive to linguistics, explained what brought about the imposition of the course in general linguistics as a requirement in the program of the Institute. One objective was to remedy obvious deficiencies in the language discipline of the students. Another was to sharpen and enhance their capabilities in learning and achieving their goal in taking various languages. Some of these anticipations have not been fulfilled. The initial interest of the students in the course quickly disappeared, due, perhaps, to the fact that students here are not seeking scientific information in the field of linguistics but are interested in seeking a practical proficiency in the use of a foreign language. The utility of what was presented to them in the linguistics course was not obvious to them.

A good many of the teachers, who are cultured but more or less traditionalist teachers of languages with little or no scientific linguistics discipline, reacted rather negatively to the efforts to bring them in contact through faculty seminars with certain aspects of linguistic science. This is even more true of colleagues in other departments in the University, in the School of Foreign Service and in the College of Arts and Sciences.
As far as the administrative echelon at the Institute is concerned the conversion to the idea that linguistic science is useful in the teaching and learning of languages has already occurred. It is to be hoped that with time this conversion will also take place with respect to the teaching personnel, and that a more effective presentation of the general linguistic course, resulting in part from findings such as have been presented at this meeting, will enable the student to establish a direct relationship between the linguistic discipline and their practical and perfectly worthy utilitarian objectives.

GORDON FAIRBANKS was led by Mr. Dostert's remarks to comment that there are a couple of things which should be kept separate, one being the teaching of linguistic science and the other the use of the information about a language that a linguistic scientist may have in the teaching of a language. There are conflicting viewpoints on the validity of using a course in linguistic science in order to aid a student in the study of a language, and it is doubtful whether the study of linguistic science is much help to students whose problem is to acquire a practical knowledge of a language. On the other hand it is very important in the learning of a language that a student have the material presented to him in a manner that would conform with the best analysis that a linguistic scientist might make of the language. In sum, a course in linguistic science and the application of that in language teaching are two quite distinct things.

DR. FERGUSON backed up Professor Fairbanks by reiterating that it is quite important that the results of linguistics science be used in preparing good textbooks and in setting up programs for study. It would be equally true to say that the conclusions of educational psychology should be used in preparing textbooks, setting up programs of study, etc. This is a separate problem from the one of giving an elementary linguistic course to elementary language students. It is the consensus of the linguists at the Foreign Service Institute that if an elementary linguistics course is given it must be tailored to the needs of each particular group to a considerable
extent in order to enable them to gain a great deal of benefit from the course. That has been the experience in the Foreign Service Institute, where time and again it has been found that even putting together students from two classes in two different languages is sufficient to destroy much of the good to be gotten out of a linguistics course. The solution has been to have the linguistics course very closely integrated with the elementary language instruction itself.

Henry Lee Smith, elaborating on Dr. Ferguson's remarks concerning the linguistic program at the Foreign Service Institute, noted that if the students coming to the Institute had had in their educational preparation a general course in linguistics, the job of teaching them a language with the best experience available at the Institute would have been much easier. But in fact they had had no such course and possessed instead all of the folklore in all of the books, so a negative unlearning process presented itself together with the practical problem of implementation of things that made better sense.

There was no choice as to whether or not to teach the students linguistics before teaching them language since they were there to learn the language. Therefore anything they did get in linguistics had to run along at the same time they were learning the language. There was also the difficulty that has been expressed by Dr. Politzer and also by Prof. Dostert that these people expected at the best to learn a skill and learn it rapidly; they were not interested in subject matter when it came to language teaching. Therefore the first major attack on this was to put linguistic knowledge into the teaching situation wherever possible without formalizing it.

No attempt is made to teach the students linguistics per se. The objective is instead to teach them without their knowing it linguistic attitudes, the reason for doing the pedagogical job the way it is done, and enough of the knowledge that linguists have learned about the structure of English on the one hand and the structure of the language to be learned on the other, so that the actual job of learning the language is made very much easier and more efficient. Actually there is subject matter in this without their realizing it. After half
of this course is given, in many cases some of the most over-educated of the students wake up to why they have been given this instruction. In some cases these people have already learned more linguistics than they know and it has not been an unusual thing to have these people actually write technical linguistic articles about the structure of the language they are learning, as a by-product of learning that language, which they have done much better and with much more motivation and feeling of reward than they ever could have had before. These articles have been of such a calibre that they have been published in recognized specialist journals in linguistics.

DR. CARROLL was led by Dr. Smith's remarks to point out that there are such tremendous individual variations in getting a student interested that it is impossible to tell from the comments what they really think or what values they are getting from something. Many of the values, as Mr. Smith points out, are long term and do not accrue until a considerable period has elapsed. If a man writes a technical article in linguistics, very nice. More interesting, however, is the role of a general course in linguistics as a course in general education. Linguistics and what linguistic science has to offer are quite as important in the general education curriculum, quite aside from its application to languages or language teaching, and should be given perhaps more place in the freshman and sophomore or junior curriculum in the colleges.

As to how this might be accomplished, the problem of going through the technical linguistics books or considering the order of technical linguistics does not appear to have very much relevance here. It would be preferable to start with certain problems which come out in everyday conversation or in dealing with languages. Some of these problems have to do with misconceptions which have to be debunked. This debunking should be undertaken not by an arrogant shock treatment but by being very friendly about the matter. It is possible to lead the individual into the correct attitude. But it is necessary to start with some specific problems.

For example, one thing that many people wonder about is whether it is possible to study language scientifically. This is not
as mysterious as many people seem to think. There are many people who are anti-scientific, incidentally, and too much emphasis on the scientific study of language is going to antagonize them. There are many humanistic values also. For example, the general problem of international communication, the problem of an international language, would be the springboard for a great many discussions of technical linguistic points. Dialect problems, which have to do with elementary sociological problems, could be the springboard for discussion of many technical linguistic points on that score. As one part of this humanistic treatment one might talk about the approach to learning languages, but this is a relatively minor part as compared with the other values which could accrue from it.

JOHN DE FRANCIS (Johns Hopkins University and Georgetown University), addressing himself to the second subdivision under the general subject of "Linguistic Theory and Pedagogical Application", presented the following paper on the topic "Aspects of Linguistic Structure":

I would like to deal with the problem of differences in linguistic structure stemming from differences in level of speech. Such differences exist, presumably, in all languages. In English this phenomenon can be illustrated by the difference between the intonation of ordinary conversation and the kind of intonation one hears in a sermon; the latter would be most inappropriate in every-day speech. Another illustration of differences in level of speech is the use of ain't and isn't by speakers differentiated on the basis of education or social standing. Apart from a few obvious examples of this sort I cannot say anything more about English, for I am merely a native speaker of the language and have never studied it from a scientific linguistic approach. To provide a more detailed discussion of the problem I shall have to turn to a language about which I know something from an analytical point of view.

The discussion is a by-product of some work that has been going on at the Institute on a textbook for intermediate Chinese. At the elementary level the field is already fairly well supplied with books
which apply to the teaching of Chinese the kind of linguistic approach that has been discussed here today. But at the more advanced level this approach has hardly been used. There is therefore a wide gap between elementary conversational materials and the materials of ordinary written Chinese. This gap between spoken and written Chinese is tremendous, probably greater than in any other language in the world.

In the attempt to bridge the gap, recalling the basic principle that language is speech, we began by suggesting to a Chinese scholar that he record for us on tape a series of lectures on sundry topics of Chinese history as if he were addressing a Chinese college audience. To assure as great an approximation as possible to the spoken style, the speaker was asked to deliver his talks without writing them out before hand and with a minimum of notes and preparation. The recorded talks, amounting to three tapes of somewhat less than half an hour each, are full of choppy sentences and sounds of hesitation like *ah*, *mm*, etc. Despite this indication of approximation to genuine spoken language, the style of the talks, much to our astonishment, turned out to be much closer to formal written Chinese than to ordinary speech.

When transcribed and tried out on intermediate classes these academic lectures proved to be much too difficult for students with a knowledge only of ordinary spoken Chinese. The idea then occurred to us to re-cast the material in the form of a conversation between two educated Chinese. Ideally we should have gotten two Chinese who were native speakers of the dialect we wanted and at the same time were well grounded in Chinese history and recorded their conversation on the subject, preferably without their being aware even that they were being recorded. Since this was out of the question, the best we could do was to have an intelligent Chinese with a good general college education write out (in Chinese characters) three simulated conversations between two Chinese scholars on the subjects covered by the three recorded lectures. The conversations were themselves recorded by two native speakers of the Peking dialect and then transcribed. The result is, then, two levels of language dealing with the same topics.
In working over the material we discovered that there are quite a few differences in these two levels of speech. It should be noted that our lectures are probably less formal in style than actual, well-prepared lectures in Chinese would be, and that our conversations are certainly less colloquial than ordinary conversation. The differences discovered between our conversations and lectures, therefore, by no means encompass the maximum differences between the conversational and lecture styles in Chinese. It is the differences in these two levels of speech that I want to illustrate for you now as of possible utility in analyzing this phenomenon in other languages.

The differences in the two levels of Chinese speech can be grouped into several categories. The first of these is a group of syntactical differences. For example, the idea that one group of officials (A) was more numerous than another group of officials (B) is expressed in the lecture as follows:

\[ A \ dwoo \ yu \ B \]

i.e. A numerous than B

In contrast, the same idea is expressed in the conversation by a quite different syntactical construction, as follows:

\[ A \ bi \ B \ dwoo \]

i.e. A compared to B numerous

The second category of distinctions between the two levels of speech is a group of lexical differences. "His" is expressed by the word \( chi \) in the lecture and by \( tade \) in the conversation. For "according to" the lecture has \( jydu \) and the conversation \( anje \). The extent of such lexical variations is well indicated by one sentence in which the two styles have in common only one item out of seven, and this happens to be a technical term which cannot be changed. This sentence, which expresses the idea "It is more appropriate to use the Five Dynasties [Period] as the dividing line [between two historical epochs]," is as follows (I give first the English, then the lecture version, and last the conversational version):

\[
\begin{align*}
\text{use} & \quad \text{Five Dynasties} & \quad \text{to be} & \quad \text{dividing line} & \quad \text{more} & \quad \text{to be} & \quad \text{appropriate} \\
\text{yi} & \quad \text{Wu Dai} & \quad \text{wei} & \quad \text{buwufen chi} & \quad \text{gen} & \quad \text{wei} & \quad \text{chye ding} \\
\text{ying} & \quad \text{Wu Dai} & \quad \text{dzuw} & \quad \text{buwufendje ji ci dan} & \quad \text{bi yan} & \quad \text{swodang}
\end{align*}
\]
The third category comprises a group of phonological differences. The word for “give” is pronounced ji in the lecture and gēi in the conversation. The suffix indicating perfective aspect is pronounced lyāu in the lecture and le in the conversation. In some cases the phonological difference extends only to the tone of a particular syllable. Thus the common word for “today” is pronounced jǐntyan in the lecture and jǐntyan in the conversation, that is without a tone on the second syllable. The importance of such tonal distinctions will emerge when it is remembered that tone is phonemic in Chinese, that is distinctions in tone often convey distinctions in meaning. For example, yīfù means “a set” but yīfu (with no tone on the second syllable) means “uncle”.

A fourth group of distinctions is due to dialect differences between the lecturer and the conversationalists. The two Chinese who recorded the conversations were both native speakers of the Peking dialect and had only minor differences in speech. But the lecturer, who comes from a city only about eighty miles from Peking (Peiping), was discovered to have some interesting dialectical peculiarities. In his lecture “goose” is pronounced ngé as against the é of the conversation, and “fat” is pronounced fēi (with a high tone) in contrast to the féi (with a rising tone) of the conversation. The expression fēi ngé in the lecture gave us momentary trouble, for fēi (with a high tone) means “to fly” in the Peking dialect, and it took a bit of study to find out that fēi ngé did not mean “flying goose” but was a dialectical variation of fēi é meaning “fat goose”.

What has been presented here is only a few of the many disparities between two levels of speech in Chinese. The teaching of these two levels simultaneously to the student makes it possible to supply a two-step bridge between conversational and written Chinese. It also serves to underscore for the student the fact that one must be aware of the existence of different levels of speech and that one cannot assume identity in structure or anything else between these different levels. I have illustrated this in terms of Chinese, but the situation exists, I believe, in all languages.
IV

THE LANGUAGE LABORATORY

Leon Dostert, the chairman of the panel, explained that the reason for putting the subject of the language laboratory as a formal topic of discussion is the fact that there is now growing up a rather solid set of material and data based on somewhat empirical experience conducted in an uncoordinated manner in various universities. It was felt that if five or six of the people who have been groping their way to a reasoned use of technological aids could be brought together to pool their experience and see what might be brought out of an exchange of ideas in the form of preliminary conclusions, not only would there be mutual benefit from such an exchange, but others who might like to engage in this type of activity and establish laboratory facilities for language work might be spared some of the errors and headaches that have previously been experienced.

In this field, as in many other fields, there are many minds which remain closed to any innovation, particularly if that innovation has the character of a mechanical gadget. They are perfectly happy to ride in automobiles and to use refrigerators and to take advantage of every resource of modern technology for many aspects of their living activity, but when it comes to their professional endeavor that is something else again. In many places, languages are still being taught, figuratively speaking, by candlelight. There is, in fact, no more gadgeteering in the use of technological machines or aids in language teaching than there is in any other field. No one would think for a moment of dispensing with the mimeograph machine or the printing press, yet these are nothing more than instruments for the reproduction and wide diffusion of the written form of language. With modern electronics it is now possible to do the same thing with the spoken form of language. It would seem to be an elementary fact that since modern ingenuity has given
the possibility of reproducing and disseminating language in its spoken form, recording facilities can be as indispensable in the teaching of language as textbooks, in fact even more so.

The fact that there is a very real interest in the present topic can be illustrated by one little incident. Armand Bégué, who is National Director for Information of the American Association of Teachers of French, published last October in his little monthly Bulletin, a two-sheet publication, a brief note of about two lines to the effect that there were a certain number of people who had done something with language laboratories. Out of that little note the Institute of Languages and Linguistics received no less than a hundred inquiries from all over the country. If two lines in a little monthly bulletin will get that sort of response, obviously the interest is there even if it is only latent at the moment.

ARMAND BÉGUÉ (Brooklyn College), defining a language laboratory as an especially equipped room where students spend an appropriate amount of time each day as part of their homework assignment, listening individually and silently to especially recorded tapes or disks containing passages from their regular class textbooks, described the setup at his institution. Last year, after some ten years of effort, success was finally achieved in obtaining a modest but standard minimum equipment for the college level. Brooklyn College now possesses a room which has a soundproof ceiling, one booth, one tape recorder, and some disk recorders, portable phonographs, record players equipped with sets of earphones, turntables, and screens.

One of the obstacles experienced at Brooklyn is that so far the use of this equipment has been achieved only on a voluntary basis. Not all instructors in the department are completely cooperative. The primary emphasis is on disks, but since these have to be cut, not too many members of the department have indulged in a process which requires spending quite a few hours cutting the recordings. Another obstacle is that the room is not equipped to be used by more than fifteen students at a time. Since as a city
Institution Brooklyn has several hundred language students, very few of them can take advantage of this setup. In order to achieve any amount of results, language laboratories should be made a compulsory part of the program of instruction. It should also be noted, and sometimes it seems to be forgotten, that the demands on the instructors are much greater with this type of teaching than with the traditional type of teaching. It should also be noted as a general comment on the language lab that it involves the necessity of partially rewriting the syllabus.

As to the attitude of students, with the voluntary arrangement such as exists at Brooklyn, the better student usually takes advantage of the setup, and the not-so-good student has to be urged very much to take advantage of it; that is to spend an hour or so a week in the lab. Students are most willing when they have some faith in their instructor. Another general comment that can be made is that with the usual three-hours-per-week schedule there is little hope of greatly improved results. In order to achieve better results it is necessary to have more than the three hours per week. Language labs should also be considered solely as another aid to language teaching, as a great time saver, especially these days when in many colleges all over the country the tendency is either to drop completely the language requirements or at least to limit them to such a minimum that it amounts to practically nothing. And considering that the language lab is simply another aid means that reading, both extensive and intensive, should definitely be kept. Finally, it should be noted that the study of the language is not purely mechanical and that cultured and widely-read instructors with a good sense of humor are still an indispensable part of the program.

A. Bruce Gaarder (Louisiana State University) reported that a foreign language laboratory has been in existence at his institution for some five years. The laboratory is a large room containing 125 individual booths or positions, each equipped with a specially designed phonograph with a double amplifying circuit. This permits use of a set of headphones and includes a microphone into
which the student can repeat without disturbing others in the room. Each position is also equipped with a full set of the disks with which the student is concerned in a given course. This arrangement was chosen deliberately because it was felt that there was great advantage to be found in allowing each student the privilege of studying that part of the course which he felt would be most advantageous to him at any given moment and also allowing him to repeat any given sentence or phrase or paragraph at any time, as he might choose.

This is expensive, to be sure. At the beginning of each semester it is generally necessary to recut the disks, that is to supply a new set of disks for each language, each position. Disks have the disadvantage of wearing out, especially the ones used at the beginning of the course, when they must be supplied in more generous numbers. The disks are prepared in a recording studio with professional quality recording equipment.

The staff includes one faculty member (Professor Gaarder) on a one-third time basis, several student assistants who watch the desk and take care of the attendance record, and two young men, electronics technicians, who cut disks and do general repairs. The installation cost about $40,000 dollars. The annual operating budget, originally amounting to about $6,000, has now been cut down to about $4,000, which includes the one-third of the salary of the faculty supervisor. The chief cost is now the purchasing of recording blanks.

One of the most serious problems encountered in the language laboratory is that of attendance. This centers around the basic and very difficult problem of integrating what is being done into the classroom program. When the laboratory was first put into use, five hours of attendance at the laboratory were required in addition to the five hours of ordinary classwork for a beginning language student. A timeclock was installed and students punched their own time cards. Students could come in and spend any amount of time, including a fraction of an hour, at any time they wished, during the total of fifty-nine hours a week during which the lab
was kept open. But this system did not work. Students had the feeling that teachers were grading them on their attendance and that if they put in more time the grade might very well be better, whereas if they put in less time, irrespective of the quality of their work, the grade might be somewhat lower. It was also easy for the teachers to look at the laboratory report which was handed out each week and to grade accordingly. The result was that students would appear at the lab but might do other things.

A new system has therefore been instituted with checks on the teacher rather than the student. Each student as he comes in reports at the desk not by name but by section. He is allowed to come on a purely voluntary basis and can come at any time during the day. At the end of the week, each teacher and each department head receives a report which shows the percent of overall attendance of his class at the laboratory, thereby placing the responsibility for integrating the lab work into the class squarely upon the shoulders of the teacher. The teacher is eager to see the report and to get the students into the lab. The only way he can do this is to make it a meaningful part of the student's work. To this end an attempt is made to prepare material partially in print and partially recorded so that the student can prepare his lesson in no other way than by going to the lab, getting the material from the disk, and then reporting to the class and showing what he has done. In Spanish a textbook is being prepared all of the principal material of which is to be found on the record alone. Exercise material sufficient for the teaching of writing and also a certain amount of reading is in a printed form, but the aim is to make it impossible for any student to get by the course unless he gets the material through his ear.

Examinations are an important factor contributing to the relative success or failure of the language laboratory work. It is the conviction of the group working at Louisiana State University that although written examinations—weekly, mid-term and final—may have certain value as teaching devices, they weaken and may even nullify the aural-oral laboratory work if they are used as the principal basis for determining the student's grade in the course. In
the Louisiana school the students are informed on the first day of class and reminded many times thereafter that irrespective of their proficiency in reading and writing the language, their grades will depend on their ability to understand it orally and speak it. In order to implement this theory it has been necessary to devise new types of aural-oral examinations for individual and group use.

A. GIDUZ (University of North Carolina) described the laboratory at his institution. This laboratory was started less than three years ago. The major portion of the cost came from outside sources, including contributions by some friends of the Institute of Latin American Studies, as there was only a very small amount of money in the departmental budget. The lab was begun on a rather small scale, with only two or three machines, but as time went on it was gradually enlarged. It now comprises three rooms: one for the students of Spanish, a technical control room in the middle, and a small room at the end for students of French.

The equipment includes twelve Webster-Chicago Wire Recorders, one Brush tape recorder, a Stromberg-Carlson amplifier, a Jensen 12" speaker, a Hammerlund Superpro short wave radio, a twospeed turntable which will play records up to sixteen inches, and a single speed portable record player. The Spanish room has fifty-two jacks, that is the plug-ins for listening, with five machines having eight jacks each and two having six each. As many as sixteen students at one time may listen to the same lesson. All the elementary lessons in Spanish have been recorded. There are 350 half-hour reels of wire recordings and 150 half-hour reels of tape recordings, of which some fifteen or twenty are mostly Spanish-American music. The French recordings include most of the material for the elementary courses.

In the Spanish room the jacks are arranged on tables around the room so that the students sit next to one another around the walls. In the French room the students sit at tables facing one another or right next to each other. The attendant for the Spanish laboratory is an undergraduate major in Spanish with a rather remarkable technical ability. In the French lab one of the graduate students
who has charge of the recordings in lieu of teaching works in co-
operation with the technician in making the recordings.

A French girl who is a graduate student in philosophy has re-
corded most of the elementary work in French. Two or three other
French residents of the community have likewise been used for
doing the reading. They are paid for this work. All instructors and
professors have also had some part in the recordings.

In the beginning work in Spanish the recordings leave time for
repetition. In the reading courses the material is continuous. There
are special lab periods for the more advanced students of phonetics.
Each student works with two wire recorders. On one is a reproduc-
tion of a disk recording which the student plays and listens to. As
he listens to the word or phrase the student repeats the material and
records himself together with the original on the second machine.
The laboratory furnishes the wire for the student to listen to. Each
student buys his own wire for recording purposes.

Attendance at the laboratory is on an absolutely voluntary basis,
with some urging, of course, on the part of the instructor. It is
always good at the beginning of the quarter, lags in the fall, and
gradually drops off and reaches its lowest point in the spring. In
French the average attendance in the winter quarter was seventy-
four students per week out of some four hundred and fifty in the
elementary courses. In the spring the attendance dropped to sixty-
seven. An attempt is made to keep instructors informed of the
attendance of their students.

It is not clear whether regular attendance is due to the desire of
students to achieve higher grades or whether the best students only
are the ones who go to the lab. In any case, there is a definite rela-
tion between attendance and grades. In general, the main objec-
tive in the lab work has been to increase ability in comprehension.
In addition, it is aimed at increasing and having the student
achieve a satisfactory pronunciation.

ELTON HOCKING (Purdue University) reported that the lab-
oration at his university, since it involves a revolution in the fairly
traditional method of teaching, is being limited in its first year to German. It so happens that a normal turnover plus retirement of three senior professors of German in June of 1951 will result in a relatively young staff. It has been possible to recruit people for the staff who are interested and willing to go into a new and fairly unconventional manner of doing things.

At the same time that this change was contemplated it happened that last summer the president decreed that Purdue should undertake a rather general program of improvement of reading by students, not merely remedial reading for the handicapped and the mentally halt and blind but also for a general cross-section of the student body. This was undertaken last fall. In preparation for this the president had eight or ten members of the English Department, prospective instructors in this new reading retraining, undergo a summer seminar to prepare for the undertaking. When the German Department heard of this, permission was requested to have a member participate in the seminar, as it was felt that if this new technique offered some help for improvement in reading in English it might offer some help also in German. This member of the German staff will be in direct charge of the laboratory.

The expenditure of approximately $15,000 has been approved for the purchase and installation of the following equipment: thirty semi-private booths, each with microphone, headphones, and Brush tape recorder; one Beseler Vue-Lite opaque projector; one Carrier Speed Reader and screen; 800 magnetic tapes for the recorders; and cabinets for these and for the projectors. There is already an acoustically treated room, with Ekotape recorder, loudspeaker, short-wave radio, and Presto disk transcriber, all hooked up together. This hook-up will serve as the master control, and the thirty new machines will be wired in series with it.

A laboratory assistant will be on duty several hours per day, so that the equipment will be available to any student who comes to use it voluntarily. However, first year and second year classes, composed largely of students taking foreign language as a college requirement, will hold two of their four regular weekly meetings in this room in their first year, and will hold one of their three
weekly meetings there in their second year. The regular class instructor will be in charge at all times. The laboratory equipment will serve to provide intensive audio or visual or combined audio-visual drill on original materials which will be treated more conventionally in the meetings not held there.

With this setup, students can criticize their own work by listening and repeating during the space intervals of silence on the master recording. They can speak into the microphone and record on their own tape both the master recording which they have heard and their own responses to it. The advantage of this is that the students can progress more or less at their own speed. Of course, such equipment, making each booth almost independent, costs more than booths which permit only listening and repeating but not the making of individual recordings.

The materials and methods used at Purdue are devised to meet the special purposes of the university. Since Purdue is a state institution, most of the students take twelve semester hours of foreign language to satisfy the requirements of the central college. It is generally agreed among the students and faculty that the foreign language skills most desired are the receptive skills of comprehension by the eye and by the ear. It is apparent, moreover, that these are the skills which can be most quickly and successfully developed. Therefore no attempt will be made to develop highly the active skills of free conversation and free composition. Certain exercises in imitative speaking and writing and also variation drills by tongue and by hand will be used, but except for the attainment of acceptable primary skills in speaking and writing, such exercises will serve as means to the end of considerable attainment in the skills of comprehension. It is assumed that the active skills can be highly developed later, should the need for them arise, when, for example, the student visits the foreign country.

It is generally agreed that auditory comprehension is developed by auditory practice. It is, or has been, generally agreed also that "one learns to read by reading," although the results in conventional reading courses do not always bear this out. At Purdue
the assumption is that, with students who are adult and literate, the development of both types of comprehension, auditory and visual, is interrelated. It has been demonstrated that so-called silent reading is accompanied by incipient activity of the nerves and muscles of the vocal apparatus. It seems high probable that the vocalization of strange words and phrases is accompanied by visual imagery in the familiar patterns of the learner’s first language. (Such was the conclusion from driving an experimental French class through mimicry-memory practice before they were allowed to see the written symbols.) At any rate, the assumption is that visual and auditory imagery and practice will reinforce each other, especially when combined.

To achieve this, there will be simultaneous drill by synchronizing the Speedreader with the tape recorder. A moving text will be projected on the screen at any desired rate of speed, while through the headphones the students will hear the same text being spoken at the same speed. The identical text can be repeated at gradually increasing rates of speed, with each increase matched by a new tape which was recorded at the new speed. Interspersed in the text will be occasional tests of comprehension, to which the responses may be vocal (and recorded on the student’s tape), or written (there will be adequate light for writing), or both. No doubt there are other possibilities which can be worked out, such as the occasional suppression of one or the other medium, during repetitions, to heighten the student’s awareness of his attainments or shortcomings.

Besides the value of reciprocal imagery, already mentioned, the following advantages are expected:

1. **Controlled speed and sustained effort.** These are stated together because it is believed that they complement each other. Mere speed is useless if it involves only unthinking responses. But a reasonable speed should stimulate effort and help to overcome the poor reading habits which the student uses in his first language, or the deciphering habits which he learned in Latin class, or the sheer
moonling and mulling over a static, printed page which many students confuse with reading or studying.

What little is known of the psychology of learning indicates that the rate of learning is a function of the intensity of effort. Controlled speed, alternated with comprehension exercises and other variations, should provide vigorous effort and therefore accelerated learning.

2. Repetition without monotony. In music, in sports and in all skilled crafts it is accepted by the learner that identical practice makes perfect, but our youth object to reading the same text even twice. They say that it bores them. (Perhaps this is because they do not think of rereading as a device for developing skill). However, increased speed with each repetition of a text should supply enough challenge to keep the attention sharpened so that the advantages of repeated, identical stimuli will be fully realized. With each repeat performance, "something new has been added," in the form of increased speed, and yet it is the same thing. It is hoped that this kind of practice will really make perfect, or at least do better than what we have known in the past.

3. A direct apprehension of the connotative and other associative values of the foreign language.

Reading courses, of the usual sort, involve a kind of algebraic process of equations. Dictionary meanings refer the reader back to English, so that he seldom progresses beyond an abstract approximation of the original. Even the superior student, at the end of two years, is only a mediocre translator, and justifies Mr. Robert Hutchins' statement that most foreign language students would do better to use a professional translation than to make their own amateurish one.

This dismal situation results from the common fallacy of assuming that literal symbols are language. It is hoped at Purdue that the synchronous presentation of sound with symbol will endow the symbols with the warmth and the color, the tones and the overtones which make language a living thing.
How far it will be possible to succeed is of course a question, and there doubtless will be mistakes and disappointments. The important thing is that, by careful analysis and evaluation, the nature, the degree, and the cause of the mistakes and also of the successes will be ascertained. Reliance on subjective judgment and mere hunches has vitiated the value of many brave experiments in foreign language instruction. Just as the road to hell is paved with good intentions, the path of language teaching is paved with good inventions (and also bad ones) whose true value has never been determined objectively. Hence the violent and dreary controversies which fill the pages of our professional journals, where each man's opinion is as good as the other fellow's.

In the budget requests for the next year a request has been made for an appropriation for expert statistical analysis (involving, perhaps, considerable factor analysis) of the various achievements of the experimental work. It is hoped thus to learn what procedures attain certain results, both quantitatively and qualitatively. To the extent that this can be done, it is intended to publish the results, be they encouraging or discouraging. The work will be conducted in a goldfish bowl, in the hope that the success or failure will be of value to the profession in general.

CARLTON HODGE (Department of State) prefaced his account of the mechanical aids used at the Foreign Service Institute by pointing out that the term "language laboratory" has two very different meanings. One, which the linguistic scientist will usually think of first, has to do with the investigation of language by means of mechanical aids. The second is the learning of a language with such aids. It is the second that is now under discussion.

The FSI equipment consists of regular phonograph records of the Army-Holt material and about twenty-five first-class play-back machines made on Bureau of Standards specifications. These are single speed 78 RPM machines with very light tone arms designed so that the tone arm and needle, which is of diamond, should not wear the record in any way. The machines are very good but they are made specifically for small groups working in small rooms.
such as those at the Institute. For recording there are some half dozen tape machines, plus a battery of disk recorders of the embossing type purchased in the pre-tape era.

The material used in connection with these machines is of a uniform pattern. Recorded conversations include English words and phrases built up to sentences with space for repetition following the language to be learned, which is repeated twice. The Institute deals only with beginning language material, not advanced, and has not undertaken any experimentation along the lines of the extremely interesting experiment conducted by Dr. De Francis in Chinese. The student in an intensive course has less occasion to use the records, as he is usually working with a native speaker, but some time is set aside for drill with the disk or tape recordings. In non-intensive work, records are frequently used to supplement work with a native speaker; in some cases records may be used exclusively. The latter is not desirable and there is no intention of substituting records for regular teaching, but in certain cases it is unavoidable, particularly when a student has only about three weeks available before going to New Delhi or Bombay or Mozambique. During this period he takes a recording and goes to one of the Institute rooms and studies.

The Institute does not have booths, but separate rooms. These are equipped with phonographs, and the few tape machines, most of which are portable, wander about the rooms where they are needed. The machines are therefore used to create a kind of language library which is there for occasional reference or for concentrated study with or without a teacher. Instead of studying a book at home the student studies the recordings, which is as it should be, for all of the outside study of a beginning language student should be with auditory material, whether or not that happens to be a native speaker or whether it happens to be records made in one way or another.

This does not mean to say that one should do away with transcriptions. At the very beginning, completely auditory teaching is desirable with the exception of using a transcription where necessary in order to put across the phonetics and the full meanings of
the foreign language. It is impossible to talk about a palatilized $k$, for example, without writing a $k$ on the board or putting a little hook around it or over it or under it and presenting a diagram of the mouth to show where the tongue is. The student in just listening does not hear the sounds as they are; he hears in terms only of his own phonemic pattern. In very short order, if the language does not have a very complex writing system such as Chinese, the traditional writing system may be introduced, and the student may learn the traditional writing system in connection with the sound in the manner described by Dr. Hocking, but with reference also to a transcription giving the structure. This transcription would not be learned as a writing for the language but would be used in order to understand the structure of that writing. This is particularly important with languages which have such vastly different symbolizations for the same sound, as say English or French or even Russian.

The question arises as to what a student can get out of two or three weeks of language study. It is worthwhile to a student to have even that much, for he hears the language either with records or native speakers and consults the linguist in charge of the language and obtains some conception of phonemics and of the nature of that language and of language in general and how he should go about continuing his training in the field. To facilitate the latter, records, playbacks, and recorders are sent overseas to posts which want to have small record libraries of their own for use of personnel stationed there.

In using mechanical aids for language study, care must be taken not to drift into gadgetry. One new machine, for example, is merely a glorified page-turner. A related phenomenon is the attempt to package the language course. Such an attempt is likely to prove sterile, for there is too much variety among students to be able to use one measure for all. What is preferable is a language course consisting of a static grammar, so to speak, and replaceable drill material. What this means is a basic grammar for each language written by linguists and different sets of basic sentences and exercises for different age groups and different interests. All of
these basic sentences and the conversational exercises could easily be recorded in each university according to need. One of the greatest advantages of the recorder as used today is the ease with which new recordings can be made and old ones discarded with no loss of material in the case of tape or wire. The use of such materials does not at all mean that it is possible to have a machine-taught language course. Even with their present imperfections, however, machines might well be preferable to some student teachers.

A final point can be made in regard to a language library as a language library in contrast to using these records in teaching. An effort should also be made to develop a language library of languages all over the world. The State Department, which one might think is in a special position for getting records from all over the world, has not done so yet. Eventually it hopes to do so. As the world gets smaller there should be somewhere, or in a number of places, libraries of records which will be available to people wanting to find out about these languages.

ROBERT L. POLITZER (University of Washington), in reply to an invitation from the chairman for a summary of the salient conclusions derived from experience with a laboratory, sought to present information which would not merely repeat a recently published report on this subject. The University of Washington laboratory was inspired by the laboratories at Georgetown, and is an outcome of last year's Round Table Meeting. The laboratory began operation around February and now has some seventy-five listening facilities. There are no recording facilities in each individual listening accommodation.

As far as the organization of the courses is concerned, the elementary language courses meet five times a week and the laboratory attendance is one half hour for each hour in the classroom, which gives five hours in the classroom and two and a half hours in the laboratory. In certain intensive courses and in the Far Eastern departments all the courses are given on a ten hours a week basis plus ten hours of laboratory attendance, as for example in the courses in Russian, Chinese, and Mongolian. Many students go
to the laboratory much more frequently than the two and a half hours a week that are compulsory. In the beginning some instructors left laboratory attendance completely optional and others made it compulsory; yet the attendance was approximately the same in both cases, indicating that the students were quite eager and willing to go to the laboratory.

One problem that came up after the laboratory was installed was that of teaching method. Before the laboratory was in existence a French text patterned on the war-time ASTP experience was used. Subsequently, there was a reversion to the more traditional type of teaching and to the use for this purpose of a more old-fashioned descriptive grammar. The argument in support of this is that since a great deal of dull repetition and so on can now be carried on in the laboratory, this type of teaching can be taken out of the classroom and the classroom teaching can be devoted to a more analytical type of teaching. The latter means for all practical purposes going back to the old-fashioned descriptive grammar teaching, primarily because there is no good text book available that would use good descriptive grammar for analytic teaching. Some of the teachers are not too happy about this particular development, which came rather as a surprise. There, is to be sure, an intensive course in the Romance department meeting ten hours a week in which a more modern type of method is used.

Another major problem is the type of exercise that should be used in the laboratory. So far, three types are being used. The first is a repetition type of exercise in which the student hears a sentence and is then given a certain amount of time to repeat the sentence. The second is a comprehension type of exercise in which the student listens to a short story and is then asked questions about the story. His answers to the questions are not known because of the fact that there is no way of making recordings for the answers. The third type of exercise comprises dictation exercises. These types of exercises are dominated by the more old-fashioned approach. In the intensive course it is hoped to utilize in the near future a different type of exercise making use of repetitive and diversified structural drills. In these, the emphasis is on phrases or sentences that are different or identical except for one linguistic
Another experiment being carried on in the laboratory at present is what is referred to as the seventh grade experiment. This is aimed at introducing foreign languages in the public schools and in the grade schools in the Seattle area. Very happily, a great deal of help is being obtained from the officials of the public school system. One of the problems that arises, however, is the lack of competent instructors in the public schools. Even though there are some public school teachers available who have some knowledge of Spanish, the language in which there is the most interest, their accents are simply atrocious. The language laboratory provides some help because children from classes taking this experimental Spanish in the public schools come to the laboratory three times a week for about one hour and listen to records. It is very interesting to note that the children imitate very efficiently and accurately the good pronunciation they hear on the records, and are apparently in no way influenced by the bad pronunciation of the teachers.

Martin Joos, the last of the panel speakers, dealt with the use of mechanical aids by teachers for purposes of linguistic analysis rather than by students for purposes of language learning. Such activity on the part of teachers is essential, for to make their teaching of a language effective they must know whatever is relevant in linguistics, whether it is semantics, syntax, morphology, phonemics, or just plain phonetics.

There was a time beginning roughly three-quarters of a century ago when phonetic transcription was considered such a wonderful thing that beginning language students had to learn phonetic transcription for the language that they were learning, learn to transcribe that language without ever falling off the tightrope, always assembling the symbols in linear order the way they ought to fit together in that language. No doubt the people who proposed that method and used it for quite a long time had something to
start out with. Such a language laboratory as exists at George-
town, however, can do all that that transcription was supposed to
do and a great deal more. There is no sovereign efficacy in the
symbol. But for the linguist there is such a thing as the struc-
ture of the language from the logical viewpoint. There is a phono-
logical (phonetic plus phonemic) structure of the language to be
learned just as there is a grammatical structure, and if it is ever
worthwhile to tell a student of German that the language has four
cases then by the same token it is worthwhile to tell the student
that the language has front rounded vowels, though not necessarily
in that terminology. Labels are needed that will mark units and
mark relationships between the items that have been labeled.

This does not mean that linguistics should be taught all the way
through to an elementary language student. Nor does it mean
that he should be taught all the linguistics that is relevant to the
language he is studying. In phonology, for example, there is no
need to tell the student of German that there is a labio-dental
articulation which is symbolized with an $f$ in English and with
an $f$ or a $v$ in the normal orthography of German. The student
can simply be allowed to assume that this is true. What needs
to be worked on are the things that are different between the two
languages, and even where the two languages differ it may not
be necessary to go all the way in pointing out the difference. The
student can pick up some of the peculiarities of German which are
not English peculiarities out of his experience and out of the atti-
tude assumed by the teacher or the particular choice of words used
when talking about other things in telling about that language.

The chief problem is in phonological systematic contrast be-
tween one language and another. It is not because of any muscular
set in the student that trouble arises here. The impression exists
that the elementary language student has had his muscular and
nervous apparatus frozen into a certain pattern so that he cannot
learn foreign sounds, so that he cannot even pronounce them. This
is not true. There are few monolingual speakers of English who
cannot imitate the pronunciation of front rounded vowels and
say, for example, "Poor baby!" with what a German would spell
The trouble is not in the single sound, but with the system. It is because of system that the learner cannot make free use of these things that he can pronounce, cannot combine them easily and freely.

Recently a teacher of French reported how at the beginning of his elementary course he drills the students so that they can pronounce all the French vowels neatly with brilliant clarity and unexceptional accuracy, only to find these vowels degenerating in the course of the following months until the students are almost back where they started from. In the case of the French vowel ɛ, for example, the students can be taught to say the correct sound without any trouble at all, but when a few weeks later there comes the French word fine, trouble arises. The reason is that the attempt at a French ɛ was followed by an American n and the American n ruins the French ɛ. American n is pronounced with the tongue drawn further back in the mouth: the difference is commonly spoken of as the difference between dental and alveolar articulation. Now statistically and historically it is true that one finds dental contrasted to alveolar contact, but that is not the essential point. It is possible to make a perfectly plausible French fine with the alveolar nasal, provided that the rest of the tongue is shaped so that, aside from the alveolar tongue contact and the nasalization, the tongue is in an [e] shape. If this is done with the rest of the tongue it does not matter much where the tongue tip contact is made.

The teacher must know these things. Unfortunately at the present time a very unsatisfactorily small fraction of language teachers do know them. They can read about them in books, and there are plenty of books on these subjects, but it is difficult to understand things from a book that one does not know on first picking up the book. The chances of learning about these things are increased if one can find out some of these things oneself, by playing with the laboratory gadgetry. An old traditional list of these laboratory gadgets can be found in Scripture's Experimental Phonetics. Since the last war, there is a new list of specifically acoustical gadgets. The first one, the Sound Spectograph or Acoustic Spectograph, is sold by the Kay Electric Company under
the name Sonograph. They have now also started selling on a small scale a Speech Stretcher (invented by Dr. Joos in 1945). The list also includes the sonolater, the vowel synthesizer (of which only one has been built and has been torn down again), and the vowel colorimeter (only a paper invention so far). All these are gadgets with which the language teacher can learn some of these things, can convince himself of some of the immensely important benefits for elementary language teaching.

For a century or more, English-speaking students of French have been told that French vowels are pure compared to English vowels which are diphthongized. In one sense that is true and in one sense that is false, as can be learned from the laboratory. How is diphthongization to be measured? If its absolute extent is measured it becomes apparent that there is just as much diphthongization in a French /wa/ as there is in an English /aw/. This is not particularly useful. It is more useful to measure degree of diphthongization by measuring it as rate of diphthongization. Using semitones as a measure of vowel quality, it is possible to measure how fast the vowel quality is changing in semitones per second, measure this through a stretch of speech, and thus obtain an average rate of quality change in the diphthongization. An experiment based on only one speaker of English and one speaker of French reveals diphthongization at the average rate of seventy-five semitones per second in the case of English and sixty semitones in the case of French. In view of the fact that only one speaker of English and one of French have been measured, it is not possible to say at present that there is a significant difference between the seventy-five and sixty semitones per second. The difference between the two languages is, however, a structural difference. (None of this means anything unless it can be interpreted in terms of language structure; otherwise it is just a laboratory curiosity.) The structural difference might be stated in these terms, that diphthongization of English is categorical, that is it belongs to the categories of vowels, whereas diphthongization in French does not belong to the vowel itself but is at the mercy of the neighboring consonants, that is it is an effect of consonant upon the vowel.
A language teacher needs to learn things like this so that he knows what is going on when his student pronounces something that is wrong. The ear tells him that it is wrong but the question is, what is the student to be told? What kind of exercise is to be imposed upon the student so that he will correct it?

There are a number of laboratory gadgets either actual or in prospect that will help for this purpose to instruct the instructor and inform his teaching. The spectograph is one that is generally available, has been most thoroughly covered in publications, and therefore needs no further comments. Somewhat similar to the sound spectograph is the Sonolator or direct translater, which makes a picture on something like a television tube face. One model makes a picture that drifts across the screen as fast as one talks. Another model makes a picture that is built up from the left side of the screen over towards the right and remains fixed in position. Another interesting machine is the speech stretcher. If a phonograph record or a tape recording or wire or any other convenient recording is played back at just half the original speed, what comes out is unintelligible and has the wrong quality. But if the recording is fed through a frequency doubler which doubles the frequency or raises one octave the frequency of all components of the speech, the original phonetic quality is restored. As for the possible employment of the speech stretcher in language teaching, there is no information as yet as to what its effectiveness is or whether it might not do more harm than good.

The possible linguistic validity of stretched speech is indicated by a specific incident having to do with the pronunciation of the word *unless* by Henry Lee Smith, Jr. A recording with this word when played back at normal speed revealed nothing strange. But when the recording was played back through the speech stretcher the word was heard as "enless." When played again in normal playback the word was in fact now heard to be *enless*. In other words, attention was called to things in the stretched speech which could now be observed in normal speech. This indicates the possible application of the speech stretcher in language teaching; a student can be given normal speech at half speed, which means that he has twice the length of time to listen.
The impression obtained in listening to stretched speech is that there is actually three to five times as much time available for listening to the peculiarities of what is supposed to be learned. Would it be possible simply to have a native speaker of the language speak half as fast? The answer is no. He does not say the same things. In fact, it is not too much to say that he is not speaking the same language, for a two to one change in tempo of actual speech is an enormous change. As a matter of fact, the difference between what is customarily called rapid speech and what is called slow speech is a difference only between about twenty sounds per second and twelve sounds per second, which is not quite two to one. A difference between sixteen and eight or actually two to one takes the speaker outside the range of normal speech tempo variation. The speech stretcher gives the student time to listen to normal speech. Of course the student must not imitate that stretched speech. It is intended solely to call attention to things which he can then hear in normal speech and learn from that.

The objection to having a native speaker talk slowly for students can be illustrated very well in German. When the German word for "life" is spoken at normal conversational speed, it should end with a bilabial nasal after the b and nothing in between. In other words what the student should learn to say is lebm. If a native speaker has to slow that down, he comes out with leben, which is not what one wants to teach.

The vowel synthesizer is a gadget which in effect translates the contents of the familiar two-dimensional vowel chart back into acoustic quality. A pointer tip moved freely over a vowel chart on a table top results in imitations of the appropriate vowels wherever the pointer tip is moved on the chart. The colorimeter, a paper invention so far, is the reverse of this. The notion is that a person is to talk into a microphone and his vowel quality will appear instantaneously represented as the position of a light on a light board. Imagine a light board approximately a foot square or rather trapezoidal in shape like the vowel chart, and having say 500 little light bulbs on it closely spaced all over. Among those light bulbs, nearly all will be dark all the time, but one and per-
haps a few of its neighbors will be illuminated at any moment. That illuminated region will wander over the face of the board as the speaker speaks, and at every moment will represent his vowel color. The invention is feasible, electronically, and it is even possible to draw up a list of parts and schematic diagram of how to put it together. The parts should cost $1200 and the labor three times as much. With such a gadget the elementary language learner could control, in the French sense of the word as well as the American sense, his production of the vowel sounds he is supposed to be learning.

Professor Gaarder gave strong support to the idea expressed by Dr. Joos that the student is supposed to imitate fast speech and not slow speech, which is intended solely to tell him what to listen for when he listens to the fast. A native speaker should not be allowed to get anywhere near the microphone when it is a question of recording slow speech unless he happens simultaneously to be a linguistic scientist or phonetician, that is one who is acutely conscious of the problems involved in slowing down the normal speech. Slowed down speech spoken by a native speaker with conventional training will certainly be slowed down almost entirely in terms of the speaker's mimicry and not in terms of what actually happens when normal speech is slowed down.

Leon Dostert in his summarization concerning the language laboratory concentrated on the aspect of use as a teaching aid rather than as a research aid in view of the primary interest of the Round Table members in this aspect.

With regard to the best sort of room for the language laboratory, this is not a problem of primary importance. A small classroom, a combination of two or three classrooms in the same area (one for each language), a large hall like the one on the main Georgetown campus, are all suitable. It should be basically recognized, however, that the individual semi-soundproof booth is a very useful part of the standard equipment. Actually, with only a small number of students, as at the State Department, it is possible to have rooms, in which case the problem of booths is eliminated.
But for most institutions, which have a larger number of students and which do not have the possibility of putting them into individual study rooms, the question of booths is important. Lining the students up around a table without any thought of isolation is not the answer, for this would not appear to be conducive to the type of disciplined effort which is required if the laboratory is going to fulfill its task. As regards the question of individual completely soundproof booths versus semi-soundproof booths, the former are a rather expensive and complicated installation and since the latter appear to do the job equally well, it might perhaps be agreed provisionally that the semi-soundproof individual booths are part of the standard equipment.

The problem of whether or not to have one individual machine, whether it be a disk, wire, or tape recorder, available to the student when he is in the booth is partly a question of cost. The solution can be twofold. For the type of intensive and highly motivated language work undertaken at the Georgetown Institute of Languages and Linguistics, the individual machine in each booth is a warranted expense. But for the more standard language program it would appear to be equally satisfactory to have one machine playing to a number of booths. That is the system being used at the main Georgetown campus and at American University. The hall on the main campus has 120 listening booths served by twelve machines which are capable of playing twelve different things at the same time. It is possible in any booth to select any one of six of these different offerings.

In addition to the listening equipment, the installation should if possible include recording booths. Those who have worked in the field will probably concur in the view that while packaged language material is good and has its place in the program, it is also extremely valuable to have some homemade material. With such material, the synchronization between the laboratory work and the class work can be more completely perfected. In addition, the individual teacher, instead of being harnessed to a course, every detail of which has already been determined because it is prerecorded, will be able to adapt his recording to his own method of teaching and his own particular objective.
Visual aids are also a useful part of the equipment of a language laboratory. A basic type of visual aid is the regular film. There are a few films that have been made specifically for language work, such as the simple situational film which was recently prepared by the staff at the Massachusetts Institute of Technology. The other type of visual aid is the film strip. This is a very adequate instrument because it enables one to present rather cheaply some good visual material. In one sense it is preferable to the moving picture, for it permits the focusing of the attention of the student on a static pictorial presentation more intensively than would be the case in a constantly moving pictorial presentation.

One important problem in connection with the language laboratory is the question of whether the laboratory work should be a compulsory and integrated part of the language course. The answer to this would seem to be a categorical “Yes.” If the laboratory is to be merely a room where students go occasionally for some haphazard work, it would hardly seem to be worthwhile. Laboratory work can be sufficiently fruitful and positive in its results to warrant establishing it as a regular part of the language work. To make it compulsory, as has been done at Georgetown, it has been found necessary to reward the laboratory effort with what are known as credits. Next year the main body of undergraduates will be required to take three hours of class work and three hours of laboratory work. This is admittedly not sufficient but it will do better at least than merely two hours of contact with the spoken language. For the three hours in the laboratory it is planned to give the student one so-called credit for the semester, so that at the end of the year he will have earned his eight language credits. Since their achievements are interpreted in those terms it is perhaps a practical solution of the problem of compulsion versus voluntary effort.

At the Institute, one and a half hours of laboratory work are required for each hour of class work. Attendance on the part of students here, where the motivation is very positive, is left to the students' sense of responsibility. Each week they are asked to submit a laboratory drill slip indicating the hours that they have worked in the laboratory. This is accepted as a bonafide
statement of actual effort and no other control is exercised. If a student during a given week does not put in the seven or eight or ten hours normally called for then he can make it up during the following week. The laboratory is open from nine in the morning until nine in the evening every day in the week and on Sunday from one to five.

No matter how zealous the students, no matter how well installed the laboratory, no matter how excellent the equipment, the keystone to the effectiveness of the effort is what is put on the tape. The material on the tape should be completely integrated with the classroom work and should be indispensable to proper achievement in the course. During the initial phase it is desirable to do a good deal of work on the phonemics of the language. One important point is that the material put on the tape should be so given as to alternate periods of passivity and periods of activity. Long recordings to which the students simply listen have an appalling soporific effect. Imitating what is heard, answering questions that are put to them, and taking down dictation which has been recorded are all means of obtaining the frequent and active participation of the students in the use of the tape. For example, in the French work at the Institute some recordings have been made of a small textbook in history and the students are requested to go to the laboratory and read with their eyes as they listen with their ears. After the students are felt to be reasonably competent to handle the material, this is re-recorded at increased speed. At times recordings are made of fragments of sentences or groups of words, which the students are asked to repeat during the intervals left for this purpose. Sometimes a five minute dictation is presented of one of the paragraphs which the students can correct and verify themselves.

In regard to drills on grammatical presentation, the students themselves have asked for repetitive diversified structural drill. After the theory has been introduced and the students have an intellectual assimilation of it, then that material is presented in the form of well-chosen practical everyday language which contains all the structural theory that has been introduced. Mastery of such material leads to a sense of achievement on the part of the
student. Material with high cultural content also brings favorable reactions, provided that the practical language objective is not obscured by the cultural aspect of the contents.

Student recordings are highly desirable but present some difficulties. One way of handling this is to connect a pair of tape recorders in such a way that one will play a tape with the instructor's voice and pauses and the other will record not only the instructor's voice from the other tape but also the student's responses, so that when the student has finished making the tape and plays it back again he will hear first the instructor and then himself in close connection so that he can make a comparison. Another technique is to take students into the recording studio one by one, read a paragraph or so, and then have the student read immediately afterward, whereupon the results are played back and analyzed, criticized, and corrected in class work. It is also possible to have students go to the booths and make five or ten minute recordings of material that they have assimilated. This is quite a burden on the instructor, however, for he has to go back to the laboratory, listen to each tape once or twice, note the errors on the individual tape, and then prescribe some remedial drill for the errors that he has detected. A partial alternative is to prepare a series of remedial tapes for difficulties known to be experienced by most students, and to assign them as needed.

The preparation of these and other tapes is a major task, for it involves not merely recording but also initial preparation of the material. If an individual teacher prepares in the course of one year some fifty half-hour recordings, he has done a good year's work.

This considerable quantity of tapes is made available to the students at the Institute as follows: At the beginning of the year each student is asked to acquire a minimum of three tapes, containing the material with which the student begins his study. As soon as he has completed tape No. 1 he brings it back to the bookstore and gets tape No. 4, when he is through with tape No. 2 he turns it in for tape No. 5, and so on. Thus the student actually gets the use of some fifty to seventy-five individual tapes
by acquiring only three. He does not actually buy these but puts down a deposit of $3.50 per tape; at the end of the year he returns the tapes and is refunded $2.50 per tape, so that actually there is what amounts to a regular charge of $1.00 a year per tape. With this arrangement it will be possible to amortize the stock of tapes at the Institute in a few years.

The cost of the laboratory on the main campus will be amortized by the simple expedient of collecting a language laboratory fee from the students. The original installation cost some $12,000—$15,000 and the operational cost for staff and maintenance is something of the order of $7,000 per year. Since there are some twelve hundred students, by charging $10.00 each it will be possible to amortize the laboratory in three years.

A fee of $10.00 for one hundred hours of language experience is not excessive, as it works out to only ten cents per hour. The cost to the University prior to amortization comes to about the same amount. This is figured on the basis of an annual expense of $12,000 ($7,000 operating expenses and $5,000 amortization) for 108,000 student contact hours (1,200 students times 3 hours weekly contact per student times 30 weeks in the academic year). When the cost of ten cents per hour of contact with tapes is contrasted with the cost to students and institution alike of contact with teachers, the language laboratory shows itself to be the most economical means of bringing students in contact with foreign languages for group repetitive drills.
TODAY'S APPROACH TO LANGUAGE LEARNING

HENRY LEE SMITH, JR., delivered the final luncheon address on this subject and subsequently submitted the following summary of his talk:

The title "Today's Approach to Language Learning" might better be "Tomorrow's Approach to Language Learning." The orientation proposed would put linguistics and language learning into the central position in a core curriculum integrating the social sciences and humanities. The goal would be to furnish students with a systematic understanding of human behavior—their own as Americans, and that of at least one other culture area or nationality.

Language study furnishes probably the most effective starting point for this kind of educational approach, since language is that system of the total culture through which all the other systems are reflected and transmitted. Also, linguistic systems being what they are, the realization of the function of language in all societies is the first step to the teaching of cultural relativity. Ethnocentrism is combatted here since it can be shown that no language is "better" or "worse" or more "primitive" or more "logical" than any other on an absolute scale. Languages are different, as cultures are different, and each language, being a part of the total culture of the group which uses it, will fulfill its role as adequately or as inadequately as any other. In short, a scientific approach to the study of the systems which languages are is a natural first step toward the scientific study of other cultural and behavioral systems.

The science of linguistics contributes to the overall goal on two levels. There is first the level of microlinguistics—the study of linguistic systems per se in terms of phonology, morphology, and syntax (excluding considerations of meaning). On this level, a
course in linguistics can provide a rigorous training in scientific method in the social sciences, stressing the necessity of handling data on ascending levels of complexity. Obviously, such confusions as that between language and writing are cleared up at this time. The emergence of the necessity of accurate definition and rigorous procedure in establishing structure points in the analysis of languages can be excellent preparation for the forming of objective attitudes in approaching other problems in understanding human behavior. It also makes the student aware of the structure of his own language and the language he is learning.

Secondly, on the level of metalinguistics the relationship of the study of linguistic systems and other cultural systems is undertaken. Here the student concentrates on "what people talk about and write about and why," and how they react to it. Here the meaning of what is said and written is considered in its fullest sense. Literature, history, philosophy, and religion are made more meaningful to the student when seen through this frame of reference. Here a foundation for the study of the value system is laid. Matters of style, oral and written, and the awareness of regional and social dialect differences on the levels of pronunciation and selection of words and constructions are considered in a scientific, objective frame of reference, linking this behavior to the individual's other responses and reactions.

A study of the effect that the overall linguistic system—just speaking a language—has on the individual's unconscious thought and behavior forms a natural link to the study of national character, and the best means available of getting at attitudes and assumptions which lie too deep for verbalization. It is probably in this realm of the covert aspects of culture, "the bony structure of the sentiments," that the greatest possibilities lie for developing an understanding of ourselves and others—the greatest need of this present shrinking and divided world.
APPENDIX 1

PROGRAM OF FIRST ROUND TABLE MEETING

FIRST SESSION—Wednesday, April 12, 1950, 10:00 A. M.

Subject: Wartime Experience in Language Teaching—Results and Their Application

Speaker: Henry Grattan Doyle

Panel: Elton Hocking
      Henry Lee Smith, Jr.

SECOND SESSION—Wednesday, April 12, 2:30 P. M.

Subject: Introductory Course to the Study of Languages—Nature, Contents, and Scheduling of such a Course.

Speaker: George L. Trager

Panel: Theodore Andersson
      Henry Hoenigswald
      Melva Lind
      Lucius Gaston Moffatt

THIRD SESSION—Thursday, April 13, 10:00 A. M.

Subject: The Spoken Language Approach—Aids to Recalling; Transition from Speaking to Reading

Speaker: George A. Kennedy

Panel: Charles A. Ferguson
      Theodore Huebener
      Hayward Keniston
      Mrs. Day Wyatt
LUNCHEON MEETING—Thursday, April 13, 12:30 P. M.

Subject: Report on Approaches to Problems of Language Teaching Methods on the Pacific Coast

Speaker: Howard L. Nostrand

FOURTH SESSION—Thursday, April 13, 2:30 P. M.

Subject (1): Preparation of Material for Use With Technical Aids

Panel: Leon Dostert
       John De Francis
       Carleton Hodge
       George A. Kennedy

Subject (2): Problems of Methods in Teaching Latin

Panel: Henry Hoenigswald
       Berthold Ullman
APPENDIX 2

PROGRAM OF SECOND ROUND TABLE MEETING

FIRST SESSION—Friday, April 27, 1951, 10:00 A. M.

Subject: Meeting the Government's Needs in Languages

1. The Social Science Research Council Language and Area Plan.

2. The American Council of Learned Societies and State Department English Program.

3. Civilian and Service Institutions.

Panel: Mortimer Graves (Chairman)
Theodore Andersson
L. C. Keating
Henry Lee Smith
Bryce Wood

LUNCHEON MEETING—Friday, April 27, 1:00 P. M.

Subject: Linguistic Science and Educational Psychology

Speaker: John B. Carroll

SECOND SESSION—Friday, April 27, 3:00 P. M.

Subject: Linguistic Theory and Pedagogical Application

1. The Content of an Introductory Course in Linguistics.

2. Aspects of Linguistic Structure
Panel: Charles A. Ferguson (Chairman)
John De Francis
Gordon Fairbanks
Archibald A. Hill
Henry M. Hoenigswald
R. Ross Macdonald
George L. Trager

THIRD SESSION—Saturday, April 28, 10:00 A. M.

Subject: The Language Laboratory
1. Installation and Techniques
2. Presentation and Use of Material

Panel: Leon Dostert (Chairman)
Armand Bégué
A. Bruce Gaardar
A. Giduz
Elton Hocking
Carlton Hodge
Martin Joos

LUNCHEON MEETING—Saturday, April 28, 1:00 P. M.

Subject: Today's Approach to Language Learning
Speaker: Henry Lee Smith, Jr.
APPENDIX 3

MEMBERSHIP OF SECOND ROUND TABLE MEETING

Alonso, Antonio
Ani, Mouktar
Andersson, Theodore
Armstrong, Jane
Baird, Matthew
Baños, Alfredo
Barzin, Germaine
Bass, Nellie H.
Baucher, Solange
Bawa, Vasant K.
Bégué, Armand
Bell, W. A., Jr.
Bellerose, Leo M.

Bjelajac, H. F.
Black, Rachel
Black, W. M., Lt. Col.
Blosjo, R. F.
Boldyreff, Constantin
Botman, Martha
Bowen, Marjorie
Brougher, John F.
Caino, Domingo
Canu, Jean
Carroll, John B.
Carter, Grace
Chang, Tennyson

Chelan, Mario U.
Chun, Chuman

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Gutierrez De Rio, Blanche
Hayashi, George
Hayes, Alfred S.
Hill, A. A.
Hocking, Elton
Hodge, Carlton T.
Hoenigswald, Henry M.
Hoffman, Reinhold
Horn, Stefan
Joardar, N. G. D.
Jones, R. B.
Joos, Martin
Jung, Eva Maria
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Khadduri, Majid
Kiernan-Vasa, Helen
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Lang, Anton
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Winder, R. Bayly  Princeton University
Wood, Bryce  Social Science Research Council
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Wyatt, Kathryn D.  American University
Young, Elizabeth Jen  Institute of Languages and Linguistics
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