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THE ROCKEFELLER FOUNDATION

The Program in Linguistics and Language Study

by

W. Freeman Twaddell

Excerpt from Trustees' Confidential Report

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W. FREEMAN TWADDELL, Professor of Linguistics and German at Brown University, is one of the leading linguists of the United States and, indeed, of the world.

When the American Council of Learned Societies was asked by the Department of Health, Education and Welfare to prepare a survey of the current needs and facilities for language teaching in the United States as a basis for planning and operations under the National Defense Education Act of 1958, it was Dr. Twaddell whom the ACLS chose to prepare the report.

In connection with this consultancy, Dr. Twaddell reviewed the development of language study over the past three decades. This fact suggested to officers of the Foundation that he could, as a by-product of his review, also appraise the influence on that development of the Foundation's program in language and linguistics, which began in 1934. The article which follows is the result of the request that he give readers of the Bulletin the benefit of his backward look.

For several successive summers Dr. Twaddell participated in the program for improvement of English language teaching in Japan supported by the Japan Society of New York and the Council on Economic and Cultural Affairs.

Dr. Twaddell spent the year 1954-1955 in Egypt as a Fulbright professor. He has advised the Foundation on the present program by which Egyptian linguists are studying at Texas, Michigan, and Cornell in preparation for directing the teaching in Egypt of English as the official second language in all publicly supported schools.

Dr. Twaddell received his A.B. degree from Duke University in 1926 and his Ph.D. from Harvard in 1930. He taught at Wisconsin until he went to Brown in 1946. He is a member of the American Academy of Arts and Science, and a past president of the Linguistic Society of America.

THE PROGRAM IN LINGUISTICS AND LANGUAGE STUDY: INTRODUCTION

Charles B. Fahs

The teaching of foreign languages is a large scale and frequently routine operation which we have not considered to be at the heart of The Rockefeller Foundation program in the Humanities; but language learning is basic to all scholarship and therefore to all phases of Foundation interest and its urgency for international understanding has become increasingly evident. Since language teaching has been traditionally a responsibility of the humanities, we have felt that problems in this field could not properly be ignored even though the projects which could be recommended lacked some of the excitement or glamour of work more closely related to values or the arts.

In the early days of the Foundation's program in the Humanities, for example in the statement of new Humanities program prepared for the Trustees in 1935, there was reference to the need for work on international languages, both natural and synthetic, and for particular attention to the expansion of American learning of Chinese, Japanese, and Russian. These interests have continued to the present day, although with some shifts in emphasis. In recent years we have concentrated on better methods of teaching English, the most likely claimant among the natural languages for the role of international communication, but have found little reason to recommend work on such invented languages as Esperanto. The very success of the pre-war efforts has made less urgent continuing help to the teaching of Chinese, Japanese, and Russian, while the experience of the war and post-war periods has greatly broadened American awareness of the need for attention to a great many other heretofore neglected languages.

Our work on problems of language teaching during these decades has offered much sobering experience of the limited leverage which a foundation can exercise in the face of academic inertia and public apathy. The officers

are not conscious of having missed many opportunities for constructive steps but recall many cases where we sought opportunities without finding them. Korean studies until the recent grant to Harvard would be one such example. There have been some failures and few exciting success stories. It is our impression, however, that altogether the effort of The Rockefeller Foundation has contributed importantly both to public and academic awareness of the need for improved language teaching and to the provision of necessary personnel and facilities.

The National Defense Education Act referred to by Professor Twaddell toward the end of his paper was adopted by Congress in the fall of 1958. For the first time substantial national funds are provided for the expansion and improvement of language teaching in the United States. The Act has not yet been in existence long enough for us to judge its ultimate potentialities or the extent to which it may be possible by amendment to eliminate some of the difficulties already apparent in its operation. The officers of the Foundation have been in periodic touch with those responsible for the administration of the Act. The grant approved in December to the University of California for a program of instruction in Indian languages was an effort to encourage constructive use of the newly available government assistance. We had hoped that a comparable program in Portuguese could be developed but have thus far found no appropriate sponsor. It has recently become clear that under the National Defense Education Act very substantial funds will be made available for the preparation of texts, dictionaries, and other aids, so much in fact, as Twaddell suggests, as perhaps to distort the utilization of available American linguistic personnel. With other foundations such as Ford and Carnegie also actively interested in this field, Rockefeller Foundation action requires careful exploration and planning, but in the opinion of the officers there will still be occasions where Rockefeller Foundation interest is important for sound developments in this field.

ROCKEFELLER FOUNDATION PROGRAM IN
LINGUISTICS AND LANGUAGE STUDY, 1934-1959

W. Freeman Twaddell

The Rockefeller Foundation's contribution to foreign-language study and linguistic research during the past quarter century has been a significant factor in a complex history. It is easy to read back from present shortages and gaps to this or that missed opportunity in the past; but in any balanced view of our present resources and needs, the foresight of the Foundation's officers is impressive. Without the \$3-4 million of RF grants during the years 1934-59, the 1959 picture would be disastrously different.

The technical context: structural linguistics

Foreign-language teaching is a conspicuous activity in American education, but in one sense it is merely a particular application of general theoretical linguistics. Until recently, academic language-teaching has been a craft with a long tradition, with techniques developed by trial and error, with purposes varying in time and place. A theory of language was necessarily implied, however tacitly.

In the late '20s and early '30s a major reorientation of linguistic theory occurred -- the first since the so-called "neo-grammarians" revolution of the 1870s in Germany. That neo-grammarians advance had made possible a rigorous methodology in the historical study of languages and language families; the revolution of the '20s and '30s not only furnished the theoretical basis for the neo-grammarians procedures but it also rapidly developed techniques for the analysis and description of any language, unwritten or with a writing system, "exotic" or "familiar".

These analytical techniques are obviously relevant to the teaching of languages not hitherto a part of the traditional curriculum. (They are less needed for the "familiar" languages which already have a set of teaching materials and a corps of professional teachers. But a craft tradition is likely to include some folklore and some antiquated practices, along with its empirically tested reliable procedures; and the availability of more

objective and refined analytical descriptions can have and has had a beneficial effect.) Since one striking feature of language study during the past two decades has been precisely a broadening beyond the familiar West European and classical languages, the development of a corps of modern linguists has been a crucial prerequisite.

The social context: status of foreign-
language competence

No sociological survey on the subject is known to the writer of this article. Yet there is a sense among people interested in the field that an important shift of attitude toward foreign-language competence is occurring.

Until recently, bilingualism has been suspect in America. To be sure, in certain rather thin top strata of social and professional life, the ability to use a language other than English (usually French) has been a mark of superior education and hence esteemed. And the wide-spread recognition of the commercial utility of Spanish, plus the half-truth that "Spanish is the easiest language," encouraged the study of elementary Spanish to satisfy academic requirements. Otherwise, bilingualism was often presumptive evidence of belonging to the first or second generation of recent immigrants, with a further presumption of being socially and economically underprivileged.

The end of massive immigration has effectively eliminated the basis of these presumptions; and the attitude, although lingering on, is weakening. Such immigrant bilinguals as are currently on the American scene are predominantly persons of unquestionably high status, and their very bilingualism is accepted in the circles in which they move as a plus factor. Further, the socially important fraction of Americans who visit non-English-speaking regions appear to be reporting to their friends more and more that they learned (or wished they had learned) a bit of the language, and less and less to be boasting that they got by with the English language and American dollars wherever they went.

Such a shift in the social respectability of foreign-language competence, if it indeed is occurring, is probably more significant than the post-sputnik and "Ugly American" scares about USA needs for linguistic skill.

It is important to record that the Foundation's activities in this field far antedate any change in public attitude: for most of the period

under discussion, the Foundation's activities were against the current of mass opinion which resulted in neglect of and even hostility to foreign-language study.

The pedagogical context: reading objective
and oral-aural approaches

At the beginning of this quarter century, in 1934, American foreign-language teaching was largely committed to minimum objectives. The competition in the curriculum had almost totally expelled language study below the ninth grade; high schools were offering fewer and fewer languages, and advisors were directing pupils away from those courses which survived; colleges were dropping a language entrance requirement and reducing or dropping language graduation requirements. Where such requirements remained, they were to the extent of at most four semesters of a modern or ancient language -- translated into quantitative terms, something like two hundred class hours of study. The end-product was at best a student with a rudimentary skill in puzzle solving, at worst a student thoroughly baffled and convinced that he had no ability in languages.

Be it observed here that (1) the language teachers, in general, felt they had to accept this impossibly brief period and they struggled -- manfully if wastefully -- to perfect materials and classroom procedures to develop something like a beginning of reading ability; (2) even then, many language teachers were reminding their administrators, their colleagues in other departments, and the general public, that the period was impossibly brief and that Americans needed more than a puzzle-solving command of foreign languages.

The scope of "foreign languages"

At the beginning of the quarter century under survey, the scope of foreign-language study was effectively limited to a few West European languages and the classics: French, German, Spanish; a little Italian and less Portuguese; Latin, some Greek; and Hebrew as a tool-language in theological studies.

Today it is clear that this scope had to be widened drastically, but it was not clear to many people in 1934. The Foundation officers were

among the few in the 1930s, and the record of grants then made testifies to their foresight.

The Foundation's role in stimulating
exotic language studies

The first directions of expansion of the scope were toward Russian, Chinese, and Japanese. The lists of recipients of fellowship grants in these three fields during the 1930s and 1940s contain the names of scholars, teachers, and administrators without whom our present resources would be unimaginable. Many of the early fellowships were for two-year and three-year periods, and several of these included provision for study abroad as an indispensable training.

Institutional grants were being made throughout the '30s and '40s to initiate or enrich programs of study in Russian, Chinese, and Japanese. In part these grants were made directly to universities, in part through the American Council of Learned Societies (ACLS). As early as 1934 grants were made in support of the development of instruction in Russian at Columbia and Harvard -- now two outstanding centers of Russian language-and-area research and major sources of new personnel in the field. Cornell received grants in 1939 and 1940 for Russian studies. A major grant to Wayne in 1948 made possible the construction of a Russian word-frequency count. Only last year a grant enabled Middlebury College to offer new summer school courses on present-day Russian in science, technology, and other fields.

A similar pattern of productive grants was followed for Chinese and Japanese studies: Chinese at Yale, Columbia, Harvard-Yenching, California; Japanese less intensively, usually as one aspect of a program in Far Eastern studies.

The most dramatic expansion of scope was provided in the 1941 grants to the ACLS to set up an emergency Intensive Language Program. This grant preceded our entrance into the war and was the indispensable (though terribly brief) preparation for the language-and-area curricula of the Army Specialized Training Program and the parallel programs. By 1942, 700 students were engaged in various intensive language courses, which were improvised and administered in many cases by linguists who themselves were learning the language along with their students, using the technique of drill by a native-speaking informant. Teaching materials were developed by "keeping one day

ahead of the class" as the linguist worked with the informant to gather data for analysis and description and to organize relevant practice drills for the special points of difficulty as revealed by the analysis.

The immediate products of the Intensive Language Program were some teaching materials and some teaching personnel. The materials now look crude, and off the mark in many important details; and the personnel's competence was at first pitifully incomplete. But as compared with zero, both products represented a miraculous improvement over the pre-1941 USA resources.

It is easy with hindsight to say that the Intensive Language Program should have been begun no later than 1935. But any sensible remembering of 1935 will include a recognition of the two impossibilities: Could a responsible officer then have convinced his colleagues and trustees that money should be spent to develop textbooks and teachers of Iraqi Arabic, Burmese, Korean, Thai? Could any prudent graduate student then have been persuaded to undertake a professional career in any of those languages-and-areas? --

As a matter of actual remembering, those of us who were engaged in the wartime language programs were grateful that there had been a start in 1941. It should also be recalled that a recognition of the need for instruction in exotic languages as a part of the war effort did not dawn in higher administrative circles until two years after the Foundation's grant; it is more realistic to praise the foresightedness of the grant than to blame the lateness of the dawning.

The ultimate fruits of that grant are still ripening. Early tangible results were the impressive array of Educational Manuals (later published commercially by Henry Holt and D. C. Heath) in a wide range of languages, accompanied by records which were then the last word in acoustic fidelity and pedagogical skill.

An intermediate benefit was the forced growth of young linguists who were driven by the emergency into concentrated activity and responsibilities beyond their years and academic status: most of the productive linguists now in their forties are alumni of the Intensive Language Program and the ASTP; many of the present literature and area specialists outside the West European orbit were assigned as enlisted men to the programs and received their initial training in a totally unexpected field, and then

adopted it as a professional career. All the research and teaching participants were brought into contact with colleagues who had access to hitherto unknown phenomena, and they became accustomed to discuss Thai or Cantonese or Malay as their predecessors had discussed Latin or French or German.

The effect of the Intensive Language Program and the armed services programs upon civilian teaching of the familiar languages will be noted later.

Other aspects of enlargement of scope

The primary focus of Foundation encouragement during the 1930s and 1940s was on Russian, Chinese, and Japanese. But as early as 1939 Princeton received a grant for Turkish studies. Pennsylvania was aided in 1945 and 1947 to prepare a comparative Lithuanian grammar. As Russian, Chinese, and Japanese studies became established at several centers each throughout the USA, the Foundation's role as initiator became less pressing, and the focus shifted to other regions.

Back in 1947, Pennsylvania received a large grant for work in modern Indian languages and literatures. Conferences and reports on South Asian studies were supported during the early 1950s. In the past few years, considerable grants have gone to individuals and institutions to develop USA resources with respect to the Indian subcontinent. The important operation at Deccan College, Poona, which has had spectacular results within India itself, has been further supported by a program of advanced training in USA for South Asian linguists.

The Near East has become an increasingly important object of the Foundation's program. Small grants to Princeton on 1937 and 1939 provided for seminars in Arabic and Islamic studies, with some attention to Turkish studies. From 1946 on, Princeton has received very substantial assistance in developing its Near Eastern section. A large 1956-62 grant to Harvard for postdoctoral research fellowships has begun to produce useful publications and has furnished valuable additional experience for future leaders. Both the Princeton and the Harvard undertakings have been along a broad Area approach. Language has not been neglected, but so far the emphasis has been on specialized investigations and surveys which have only indirectly furthered the training of language teachers and the production

of elementary teaching materials. The program involving Egyptian teachers of English, referred to later, is increasing a knowledge of Arabic linguistic structures in the three institutions concerned. The faculty linguists and the other graduate students at each are becoming familiar with significant features of Arabic through advising and discussing the problems of the Egyptian teachers.

The fact that Korean first appears on the list of institutional grants in 1950 and 1951 indicates that in this region the Foundation, like everybody else, was caught short. However, it is worth recalling that through the 1941 grant to the ACLS some important preliminary studies of Korean had become available; and the 1950 shortage, although serious, did not amount to an absolute lack.

The familiar languages

Throughout the quarter century the Foundation has properly concentrated on underdeveloped fields: this has meant chiefly fields at the time unrepresented in USA education, research, and training of specialists. Another type of underdevelopment has been recognized in Foundation operations: inadequate or unbalanced content and techniques in the "well-developed" fields of the familiar languages and literatures.

A special place in this category is that of Portuguese. There are numerous Departments of Spanish and Portuguese in American colleges and universities, and the number of courses in Portuguese in college catalogues is legion. But the relation of this facade to the reality of USA competences in Portuguese is and has been a depressing one for years.

The Foundation has not been able to overcome the neglect of Portuguese, but it must be credited with being aware of the need: there were grants to the ACLS in 1941, to Scarritt College in 1942, to Columbia in 1944, to an individual in 1947. Presumably the general lethargy was just too much to overcome in the 1940s; the coming five to ten years may offer more opportunities.

Among less disappointing approaches, the Foundation has from time to time moved to survey and improve instruction in the well-established languages. Spanish appears from time to time in the lists. Connecticut College for Women has had Foundation support for a reoriented program in its Department of German, 1943-47.

A suggestive program at MIT was furthered by a 1953-56 grant: properly prepared freshmen were given a course in Western thought (from the Greeks to the present) entirely in French, to satisfy a basic Humanities requirement. At the time few institutions could marshal a group of freshmen with adequate command of a foreign language to do justice to themselves and the content of a Humanities course through non-English lectures, discussions, and readings. But if a hoped-for improvement in high school language teaching occurs, other entering freshman groups of sufficient size may make it widely practicable to offer such courses; then the MIT project will be a pilot operation of value throughout the USA.

Language teaching methodology

1934 was a year of an extreme swing of the pendulum toward reading and grammar and away from oral command as the objective of language study in schools and colleges. Even without the war emergency and the necessarily new procedures in the teaching of exotic languages, it is now clear that a reaction was bound to set it. There was a grant in 1937, significant in intent if not in accomplishment, to study the value of foreign shortwave broadcasts in modern language study: the implication of the importance of aural-oral experience is striking as of 1937.

The Foundation maintained its participation through support of two conferences at Columbia in 1943, and of a research assistant at Pennsylvania for experimental studies in foreign language teaching in 1943. The next year there was another conference at Columbia under Foundation auspices, and a large grant to the University of Chicago to survey the implications of the Intensive Language Program and the armed-services programs for civilian language instruction.

Another major grant for 1945-50 to Cornell provided a pilot operation in a typical large undergraduate student body. The director and nearly all of the instructional staff at Cornell in this period had been closely involved with the war-effort language development and were eager to attempt the adaptation of relevant features to the civilian curriculum. Other institutions, though without Foundation subsidy, were thereby encouraged to make important modifications in their instructional procedures. Textbook publishers added to their lists instructional materials usable in elementary

language courses with a larger number of classroom hours per week and with an initial focus on an oral approach.

Unfortunately, the architectural limitations at Cornell inhibited an appropriate experimentation with the use of audio aids via an efficient tape-booth setup, and this aspect of foreign-language teaching has not benefited directly from Foundation support. Whether or not the somewhat chaotic evolution of "Language Labs" could have been made more purposeful during the 1950s if there had been consistent Foundation participation is doubtful. The pedagogical art and the construction industry had to shake down, and the merging of language teaching and electronic skills had to be accomplished by trial and error, in all likelihood.

In 1952 and 1954, very large grants were made directly to the Modern Language Association for a broad study of the role of foreign languages and literatures in American life. These grants made it possible for the first time to assemble a competent staff engaged in a continuing gathering of facts and dissemination of information about the over-all language study situation in the USA. Useful bulletins on language needs and resources, appraisals of the amount and effectiveness of language study, have had important effects during the 1950s.

One major aspect of the MLA operation has been the emphasis on the need to start language study earlier and continue it through more years than the usual pattern; the most dramatic effect has been in the growing movement to introduce foreign languages in elementary schools. The MLA staff has been the chief factor in stimulating the increasingly numerous local projects, and in attempting to develop suitable teaching materials for use with young pupils.

In the important hearings which led to the inclusion of language-and-area studies in the National Defense Education Act of 1958, the pooled experiences of the MLA and ACLS supplied information which would have been quite unavailable without the Foundation grants. The programs under the Act will have the advantage of using resources and experience resulting from the earlier programs.

Development of specialized personnel

Through its contributions to the ACLS for the Council's various programs of grants-in-aid and fellowships, the Foundation has supported the

training of a majority of present USA personnel at work in the exotic languages, and a sizable fraction of key workers in the familiar languages as well. Two crucial grants of \$10,000 each in 1956 and 1957 bridged the gap between earlier Carnegie and later Ford support of the Linguistic Institute, by providing summer study aids essential for the continuation of the Institute during those summers. The Foundation's rescue in 1956 and 1957 may be unspectacular; but the lack of that rescue would have been a very serious setback.

(The Linguistic Institute has for thirty years been an indispensable part of the training of practically every American linguist, since it offers a variety of specialized courses quite unthinkable at any one institution. It is routine for a graduate student in linguistics -- and for many holders of the doctorate as well -- to supplement the offerings of the degree-granting university by one to three summers at the Linguistic Institute. The benefits for students are obvious in filling out gaps in the curricula of their home institutions and in providing an opportunity to become acquainted with their contemporaries as well as with leaders in the field. The benefits for the staff itself, gathered from all over USA and from Europe, are just as real: the opportunities for exchange of findings and aperçus for two months lead to understanding and friendships and largely prevent silly squabbling in the journals.)

Gaps and neglected areas

In view of the impressive record of accomplishment, it is uncomfortable to attempt one portion of the assignment specifically requested as a desired part of this narrative. An outsider reporting on the history of a Division of a Foundation is reluctant to comment on inactivity, since he cannot know what discussion (if any) led to a decision to be inactive. Any outsider with a modicum of good will also knows that even large resources are not unlimited and that choices had to be made. If some of the grants have had disappointing outcomes, that merely shows that the Foundation had taken some risks; and probably some of the successful grants were just as risky as some of the failures.

With such reservations, what are some of the things which we might now, in 1959, wish the Foundation had done earlier if resources had permitted and if prophetic foresight had been bestowed upon the officers?

GEOGRAPHY. There can be no quarrel with the Russian-Chinese-Japanese emphasis of the 1930s. Some selections of recipients inevitably were happier than others; this is in the nature of a fellowship program and the roster of fortunate selections is a long one. The number of competent language-and-area teachers and researchers is still not adequate to meet ideal requirements; but there is no reason to believe that multiplying the grants would have multiplied the resources.

Similarly, the more recent emphasis on South Asia is meeting one of several major regional needs. It is for policy makers to decide whether a larger share of total Foundation resources should have been, or should be, allocated to doing for other regions what is being done for South Asia.

It has already been observed that the Near Eastern programs at Princeton and Harvard have had an emphasis somewhat aside from the topic of this report. The conferences and surveys on the teaching of Arabic in the USA have so far not been very fruitful, and we are still woefully short in modern teaching materials and American teachers for instruction in Classical Arabic and the various cultivated national colloquial Arabics.

The abrupt focussing of attention on Korea and Southeast Asia in the early 1950s highlighted shortages in USA resources. There was only a bare and scattered minimum of specialized competence and materials, the legacy of the Intensive Language Program.

The non-Russian languages of the USSR are not well provided for. Their theoretical and scholarly interest is considerable; their practical importance is future rather than present, but it is regarded as real by informed observers. Only a handful of experts in the Uralic and Altaic languages are available in USA, and nearly all of them are Central European by birth and training, with consequent disadvantages as teachers and as makers of teaching materials.

And, of course (as always today), Africa!

STOCK-PILING. It is against the very nature of a Foundation program to provide for an indeterminate continuation of support. Yet in some of the aspects of language-and-area development, there are things worth doing and competences worth training people for, which will not be in demand for possibly considerable periods. The answer so far has been to decide that if

a demand cannot be foreseen in a reasonable time, the Foundation will spend its money elsewhere. This answer is probably the only sensible one, but it is not ideal.

There is a built-in time lag between the beginning of the training of an expert or the production of teaching materials and the utilization of that expert or those materials. In the case of a hitherto neglected language-and-area, even a crash program would have to reckon with something like four to five years from the beginning of research to the graduation of the first student -- and that lag presupposes the existence at the beginning of the research of highly trained specialists in linguistics and area studies who can be assigned to the new emergency project, i.e. away from their normal and probably quite important work.

The conflict between the "felt need" and the "foreseeable need" has not been solved. Universities can rarely assign funds to maintain an expert or a staff in a field for which there is no student demand or job outlet. Government and business can (or could); but the highly practical methods of intensive training courses do not in themselves enrich American education and scholarship, and the emergency assignment of versatile troubleshooters is not the ideal use of brain power.

It is now clear to all observers that there "ought to be, somewhere in America," far more resources in many of these exotic language fields. But it is not clear how those resources should or could have been recruited, trained, and maintained, or by whom.

TEACHING MATERIALS IN THE FAMILIAR LANGUAGES. The writing of textbooks is not the most glorious of scholarly occupations. Those who do not engage in it usually regard it as pot-boiling and an unworthy use of professional competence. Nevertheless, improvement of textbooks is a concomitant to improvement in instruction, and the improved textbooks somehow have to get written and printed and into the hands of students.

The standard practice is to let the laws of the market place dominate the writing of textbooks. An exception is the experimental course, where the construction of a syllabus is often regarded as a legitimate part of the preparation. Otherwise, the teacher with ideas of an improved textbook has to find a publisher who is willing to risk the cost, and the writer

has to write the textbook over and above his regular academic duties. If no publisher is willing to take the risk, the writer can have his book reproduced somehow, usually in rather unattractive format, and distribute it to his own students.

The MLA grants of 1952 and 1954 permitted the subsidized production of some texts for elementary schools, and the recent Texas cooperative work on a Spanish textbook has been a recognition of the desirability of freeing experts' time for concentrated textbook writing. But these are exceptional. It may be worth considering whether textbook writing projects should be entertained for grants-in-aid.

Recent developments: machine translation

Since Warren Weaver's famous letter, research in machine translation has been an active field: an uninformed guess would be that more money has gone into machine translation in the past five years than into all other aspects of advanced linguistic research. The Foundation's Humanities program has not been involved in this support, since the financing from other sources was adequate.

So far the research on machine translation has only potential relevance for language teaching. A part of the machine translation research is directed toward a programming of the detection of grammatical signals. No one expects that a computer and a pupil will proceed identically, and no teacher wants to produce a pupil who is merely a translator. But the analysis of grammatical structures for machine translation programming is stimulating some techniques of structural description which have immediate applications to theoretical linguistics, and therefore some ultimate applications to language teaching. The time is near, if not already here, when it will be profitable to have open-minded language teachers examine machine translation techniques.

Recent developments: English as a foreign language

There are two aspects: English taught in USA to adults who are temporarily or permanently resident and need a practical command of English; English taught elsewhere, usually to school children as a part of the regular educational system.

The first aspect has been developed from place to place in response to local needs and resources, usually stimulated by the presence of graduate students or visitors.

The second aspect initially involved USA participation via the Fulbright and Smith-Mundt programs. At first a natural mistake was made: the requesting Ministries overseas and the Washington administrators confused the teaching of English-as-a-foreign-language with the teaching of "English" in American schools and colleges. The latter is an exercise in rhetoric, grammatical theory, expansion of vocabulary, some development of skill in writing and speaking that form of the language known as "formal, standard, literary"; the task is not to teach a new language but another style of the student's own language: a command of at least 98 per cent of the basic patterns of English is tacitly taken for granted in such English courses. Teachers of these courses had no experience in teaching a language which was unfamiliar to the learner; the kind of conflicts between colloquial and formal English which our English teachers have to contend with is wholly different from the conflicts between a Burmese learner's Burmese habits and those of English.

After very few years of Fulbright operations, this mistake was recognized. Americans who combined a native speaker's command of English with experience as foreign language teachers were enlisted. As the essentially exotic character of English for Asian and African learners was recognized, the lesson of the Intensive Language Program and the wartime training programs was taken to heart, and the contribution of technical linguists was taken into account.

The Foundation has participated at this level. The Deccan College enterprise seems to have sparked a major educational development in India. It is not yet clear in what proportions the ingredients of scientific linguistics and a theoretical basis for the teaching of English are mixed; but both are important. The special linguistic problems of many post-colonial nations are especially acute in India, and the contributions of Indian linguists during the coming decades will be watched elsewhere.

A future historian will find it hard to trace all the effects of the Foundation's influence, but we may be sure that it will be great. The Deccan College project exemplifies what is apparently becoming a pattern of

cooperation: A few Americans are sent overseas to establish contacts and expound general principles and teach elementary courses; then a larger number of national teachers and scholars are brought to the USA for continuing study. It is the latter, with their knowledge of what is possible and desirable in their own educational systems, who must make the decisive applications; but without the preliminary visits of the few American specialists, the national experts would have been even more confused by their first contacts with American training -- if indeed they would have come for that training at all.

A somewhat similar pattern is being followed with (at present) three trios of Egyptian teachers of English, now proceeding toward doctorates in linguistics at Michigan, Texas, and Cornell. The Foundation is supplementing support from the students' home Ministry of Education and the U S Department of State to maintain them through four-year programs, and also to supply supervision and advice by senior linguists at their respective institutions.

An important grant to UCLA represents the most advanced format so far in this field: a carefully planned two-way movement of key personnel between Los Angeles and the Philippines, with continuing on-the-spot work in Manila. A curriculum at UCLA is specifically tailored for Philippine teachers of English; the office in Manila assists in selecting and preparing the visitors and reports on the experiences of returned visitors. This writer is not acquainted with any other project with this degree of completeness; the standards here set should furnish guidance for planning by this and other foundations and perhaps the government as well.

The National Defense Education Act of 1958

The NDEA contains authorization for federal support of language-and-area centers, institutes, fellowships, and research to the extent of \$15 million per year for four years. (So far, the appropriations have been only a fraction of the authorization.) The ultimate effect will certainly be favorable to many of the aims for which Foundation grants have been made. But the immediate effect is likely to be disruptive, despite the full knowledge and wisdom of the administrators in the Office of Education. The scramble for the very limited corps of experts to carry through a long list of

desirable programs could disorganize both basic research and the fundamental training of the next crop of linguists and area specialists. The feature of annual reversion of unexpended funds makes a Government program especially vulnerable to the dangers of a crash program and the breakthrough psychosis, to which even foundations are not immune.

As the NDEA language-and-area development gets under way the Foundation will be able to supply balancing and supplementary support. One specific domain is that of participating in the establishing or expansion of centers for the so-called unusual languages-and-area: Government support is limited to one-half the costs for some categories, and it is to be expected that the Foundation will be asked to furnish part of the university's contribution in many cases. It will not be easy to avoid pitfalls. Foundation aid could temporarily mask an unsound expansion. The Foundation's choice of some proposed centers for support will appear to be -- and will in fact be -- a decisive act of policy-making involving universities and fields of study and the location of expert manpower, and rather directly influencing the distribution of Government funds.

The NDEA is necessarily oriented toward immediate and practical applications. Basic research for its own sake is not one of the objectives, nor is the training of linguists as such; the emphasis is understandably on the teaching of languages and the training of future language teachers. Naturally, historical and comparative linguistics fall outside the domain of the NDEA. The important English-as-foreign-language activity is also excluded.

In addition to these inherent exclusions, it can be expected that other gaps or under-emphases will appear in the actual administration of the NDEA for practical or political reasons. Even in the realm of the teaching of the familiar languages, some kinds of research and experimentation are likely to be more favored than others.

A development quite outside the scope of the NDEA is the application to the teaching of English in American schools and colleges of the insights of modern structural linguistics and the relevant techniques of foreign-language teaching. A few textbooks are beginning to appear with a modern linguistic orientation. But the training of teachers of English has

been chiefly literary or along the lines of traditional prescriptive grammar, and very few English teachers are equipped to make use of scientific descriptions.

The present and near future

Clearly the National Defense Education Act temporarily dominates the picture of linguistics and language teaching. (Even discounting inflation, it is still a sobering thought that the Commissioner of Education was authorized to seek appropriations at a rate which every four months would equal the Foundation's grants during a quarter of a century.) The purposes of the NDEA are roughly parallel to those of the Foundation's activities in the 1930s and its grants to the ACLS and to the Modern Language Association.

Many of the Foundation's recent enterprises are not directly covered by the NDEA. But concentrating manpower on certain aspects of applied linguistics will affect many of the Foundation's projects. Many fields of basic research, both in pure linguistics and in language teaching, will be crying for support which the NDEA cannot give. Despite the practical aims of the NDEA, some major fields of applied linguistics are outside its scope. And the development of teachers and teachers of teachers will for a long time to come call for the best thought of educators, specialists, and the officers of the Foundation.

APPENDIX I

GRANTS TO ENCOURAGE THE STUDY OF FOREIGN
LANGUAGES IN THE UNITED STATES, 1934-1959

By Language

<u>Language</u>	<u>Dates of first & latest grants</u>	<u>Number of grants*</u>	<u>Total Amount</u>
Russian	1934; 1958	14	\$247,150
Chinese	1936; 1947	8	109,800
Modern languages	1937; 1956	18	640,975
Far Eastern languages	1938; 1948	9	248,360
Turkish	1939	1	2,000
Japanese	1941; 1943	3	27,500
Spanish	1941; 1945	3	16,440
Portuguese	1941; 1944	3	18,000
Mayan	1942	1	1,800
German	1943; 1944	2	7,400
Slavic languages	1943; 1947	5	212,500
French	1945; 1953	2	25,100
Pacific languages	1945	1	17,000
East Asian languages	1945	1	17,000
Lithuanian	1945; 1947	2	7,500
East European languages	1947	1	27,500
Indian	1947; 1958	2	106,750
Italian	1949	1	100

<u>Language</u>	<u>Dates of first & latest grants</u>	<u>Number of grants</u> *	<u>Total Amount</u>
Korean	1950; 1951	3	\$ 13,475
South Asian languages	1953; 1959	4	90,580
Linguistics	1956; 1957	2	20,000
Hindi	1956; 1958	2	66,500
TOTALS	22	88	\$1,923,430

* This figure exceeds the total number of grants made because some grants were made for more than one kind of language study; in such cases, the grant was included in the total number of grants for each study, and the amount of the grant was divided among the studies for which it was given.

By Institution

<u>Grantee</u>	<u>Dates of First & Latest Grants</u>	<u>Number of Grants</u>	<u>Total Amount</u>
Institute of Pacific Rels.	1934; 1936	3	\$ 25,000
Ohio State	1937	1	3,000
Yale	1937; 1947	6	174,560
Columbia	1938; 1947	5	55,000
Cornell	1939; 1959	10	205,600
Princeton	1939	1	2,000
Amer. Council of Learned Socs.	1940; 1957	9	245,500
Carnegie Inst. of Washington	1942	1	1,800
Harvard-Yenching Institute	1942	2	15,000
Scarritt College	1942	1	2,500
U. of Calif.	1942; 1958	7	246,325
Language conferences	1943; 1948	4	4,500
Conn. Coll. for Women	1943; 1944	2	7,400
Harvard (Univ.)	1943; 1955	3	105,000
U. of Penn.	1943; 1947	4	69,500
U. of Chicago	1944; 1948	3	104,600
U. of Colorado	1944	1	500
Mod. Lang. Assn.	1945; 1954	5	243,800
Stanford	1945	1	50,000
U. of Missouri	1945	1	2,875

<u>Grantee</u>	<u>Dates of First & Latest Grants</u>	<u>Number of Grants</u>	<u>Total Amount</u>
U. of New Mexico	1945	1	\$ 1,440
U. of Washington	1945	1	75,000
Indiana U.	1947	1	27,500
Wayne University	1948; 1949	3	89,150
Individuals (travel, honoraria, etc.)	1949; 1950	2	250
Consultants and Reports	1953	1	2,500
Mass. Inst. of Technology	1953	1	19,300
Far Eastern Association	1957	2	87,080
Middlebury Coll.	1958	1	10,000
U. of Wisconsin	1958	1	46,750
TOTALS	30	83	\$1,923,430

APPENDIX II

FELLOWSHIPS TO ENCOURAGE THE STUDY OF
FOREIGN LANGUAGES IN THE UNITED STATES

The Rockefeller Foundation

<u>Name of Fellow</u>	<u>Language Studied</u>	<u>Place of Study</u>
<u>1937</u>		
PRITCHARD, Earl H.	Chinese	Columbia
WRIGHT, Arthur Frederick	Chinese, Japanese	Harvard
<u>1938</u>		
MIKAMI, Mary Uta (Mrs. Rouse)	Chinese, Japanese	Yale
OLDS, Horace Irving	Chinese	Michigan
<u>1939</u>		
PETTERSON, Inez	Spanish	Chicago
STELLE, Charles Clarkson	Chinese, Japanese, Russian	Harvard
WALNE, Florence	Chinese, Japanese	Harvard
YAMAGIWA, Joseph Koshimi	Chinese, Japanese, Kambun	Tokyo Imperial University
<u>1940</u>		
BOARDMAN, Eugene P.	Chinese, Japanese	Harvard
DULL, Paul Shirley	Chinese, Japanese	Harvard
GERR, Stanley	Chinese, Japanese	Columbia
McEVOY, Dennis Griffin	Chinese, Japanese	Chicago
<u>1941</u>		
CANZONERI, Vincent Matteo	Chinese, Japanese	Harvard
CRAMPTON, Charles Gregory	Spanish	Wyoming
KRACKE, Edward Augustus, Jr.	Japanese	Harvard

<u>Name of Fellow</u>	<u>Language Studied</u>	<u>Place of Study</u>
<u>1942</u>		
De FRANCIS, John	Chinese, Japanese	Columbia
DUNN, Charles William	Gaelic	Canada
MARDER, Arthur J. (1st fellowship)	Japanese	Harvard
PREDMORE, Richard L.	Spanish	Guatemala
<u>1943</u>		
KORNS, William A.	Chinese	Yale
<u>1944</u>		
COLE, Allan Burnett (Cancelled)	Chinese	Yale
JONES, Susan Wilbur	Russian	Harvard
KRADER, Ruth Schlesinger	Japanese, Chinese	Yale
MARDER, Arthur J. (2nd fellowship)	Japanese	Harvard
<u>1945</u>		
DUNCAN, Robert Manly	Spanish	Columbia
GOODWIN, Reason Alva	Russian	Chicago
VEITH, Ilza	Chinese	Johns Hopkins
<u>1946</u>		
BOARDMAN, Eugene P.	Japanese	Harvard
BROWN, Deming Bronson	Russian	Columbia
BROWN, Edward James	Russian	Chicago
LOUNSBURY, Floyd Glenn	Linguistics	Yale
SCHAFER, Edward Hetzel, Jr.	Chinese, Tibetan	California (Berkeley)
THOMAS, Lewis V.	Turkish	Univ. of Brussels

<u>Name of Fellow</u>	<u>Language Studied</u>	<u>Place of Study</u>
<u>1947</u>		
JAMES, David	French, Spanish	Paris; South American Centers
KENNEDY, George	Chinese	U.S. & Canadian Centers
LUNT, Horace Gray, Jr.	Slavic languages	Columbia
WALTHER, Don Herman	Spanish, Portugese	North Carolina
<u>1948</u>		
COATES, William A.	Slavic languages	Harvard
REISCHAUER, Edwin Oldfather	Chinese, Japanese	Harvard
<u>1949</u>		
CROFT, Kenneth	American Indian Languages	Mexico City College
ERLICH, Victor	Russian	Harvard & Columbia
<u>1953</u>		
CHAVARRIA-Aguilar, Oscar L.	Indian languages	Deccan College, Poona, India
<u>1954</u>		
DIMOCK, Edward C., Jr. (1st fellowship)	Indian languages	California (Berkeley); London School of Oriental & African Studies
KELLEY, Gerald Baptiste	Indian languages	California (Berkeley); Pennsylvania
<u>1955</u>		
BRIGHT, William Oliver	Indian languages	California (Berkeley); American Academy of SAIAN Studies, Berkeley

<u>Name of Fellow</u>	<u>Language Studied</u>	<u>Place of Study</u>
<u>1956</u>		
BORDIE, John George	Sindhi	Karachi, Pakistan
LEVINE, Lewis	Linguistics	Yale
McCORMACK, William Charles	Indian	Michigan
SOUTHWORTH, Franklin Chester (1st fellowship)	South Asian languages	Pennsylvania
<u>1957</u>		
DIMOCK, Edward Cameron, Jr.	Bengali	Harvard
SOUTHWORTH, Franklin Chester	Indian	Yale
<u>1958</u>		
COHN, Bernard S.	South Asian languages	Univ. of London; Indian centers

General Education Board

<u>Name of Fellow</u>	<u>Language Studied</u>	<u>Place of Study</u>
<u>1933</u>		
FAHS, Charles Burton	Japanese, Chinese, French	Ecole Nationale des Langues Orientales Vivantes, Paris; Kyoto Imperial Univ.; Japanese Centers;
<u>1934</u>		
FAIRBANK, John King	Chinese, Japanese	Tsing Hua Univ., Peiping; Chinese Centers
REISCHAUER, Robert Karl	Japanese	Library of Congress, Washington, D.C.; Princeton Univ.
<u>1935</u>		
ROWE, David Nelson	Chinese, Japanese	Harvard; Yenching Univ., Peiping
SWISHER, Earl	Chinese, Japanese	Colorado
<u>1936</u>		
BIGGERSTAFF, Knight	Chinese	Washington
SOPER, Alexander Coburn, III	Chinese, Japanese	Kyoto Univ.; Peiping
LA FARGUE, Thomas Edward	Chinese	Harvard; Yale; Columbia
NOBLE, Harold J.	Chinese, Japanese	California (Berkeley); Univ. of Tokyo
<u>1937</u>		
BALLIS, William Belcher	Russian	California (Berkeley); Library of Congress, Washington
BARNETT, Robert Warren	Chinese	Yale; Michigan