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Identifiers-Modern Language Aptitude Test

The paper considers the results of theory and research in the psychological aspects of foreign language teaching as sources of guidance in making sound educational decisions concerning the aims of language teaching at all levels. Major attention is given to the suggestion offered by research findings that language aptitude depends upon a somewhat different set of abilities (primarily differences in learning rate, from those articles required to master other subject matter. An explanation of the Modern Language Aptitude Test's ability to measure, predict, and identify such distinctive foreign language learning traits as (1) phonetic coding ability, (2) grammatical sensitivity, (3) rote learning ability for meanings of foreign language words and expressions, and (4) deductive learning ability, precedes a discussion of the Test's use for selection, guidance, and diagnosis. More briefly examined are how the factors of age, length of study, and motivation influence the learning of a foreign language. Concluding remarks concern the proper aims for language instruction and the teaching methods appropriate for achieving these goals. For related documents see FL 001 222 and FL 001 223. (AF)

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P s y c h o l o g i c a l C o n s i d e r a t i o n s

in Setting Aims for Foreign Language Teaching

In any consideration of structural differences in the aims of language teaching within the various layers of the educational system, it is useful to consider the results of theory and research in the psychological aspects of foreign language teaching, because these results may give guidance in the making of educational decisions concerning to whom, when and how foreign languages may best be taught in order to take advantage of variations in the capacities, aptitudes, and interests of students.

The age of the learner is certainly one of the first matters to consider because there are major decisions to be made as to where in the educational system the teaching of foreign languages may best begin. These decisions depend partly upon educational and social factors that may differ from country to country. In some countries, such as Sweden or the Netherlands, the early learning of a foreign

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language may be in some ways more important than it may be in other countries in which the native language is well-established as a language of world-wide importance. I shall not deal with such factors, but will limit my attention to psychological characteristics and potentialities of the individual language learner.

It has often been observed that young children placed in surroundings where another language is spoken are particularly facile in acquiring the language. It is therefore often proposed that foreign language learning should begin very early in order to take advantage of the special learning capacities that young children apparently possess. Is it indeed true that young children have these special learning capacities and if so, to what extent should educational decisions recognize this?

It has been further proposed, for example by Lenneberg in a recent book--The Biological Foundations of Language (New York and London, Wiley, 1967)--that there is a critical age for language learning, starting around 2 years of age and ending around 12 years for the normal child. Lenneberg has amassed much evidence for the existence of such a critical age. Beyond the age of 12 it becomes relatively difficult for the child to acquire a foreign language in the way he acquires his first language. However, it must be remembered that this "critical age" applies mainly to first language learning

or to the learning of a second language as a "native tongue" in bilingual or multilingual children. Even Lenneberg grants that adults up to a fairly advanced age can learn foreign languages to a high degree of mastery.

If it were possible to educate all children in bilingual or multilingual schools that started at, say, age 3 to 5, many of our foreign language teaching problems would be solved. Children in international schools, as in Paris, usually acquire perfect accents in two languages, being taught some of their subjects in one language and their other subjects in another language. One special characteristic of such schools makes them difficult to reproduce everywhere: such schools mix children who are native speakers of the two languages. For example, in one of the bilingual schools I have seen in Paris, about half the children are native speakers of French and half are native speakers of English. The social and motivational conditions created in such schools are indeed unique. It is natural for the children to want to communicate with children who speak another language. The children act as if there were no differences among them in language.

When it is not possible to reproduce the conditions of a bilingual school it has been found wise to go slow in introducing foreign languages at very early stages, because for the young child, the foreign language may seem

strange and of little functional value. If foreign language training is introduced at this stage at all, only the spoken language would be taught, since the children are only just beginning to learn reading and writing in their own language. Most educational systems do not start introducing a foreign language until about the third or fourth school year, starting with emphasis on the spoken language and passing on the written language only after certain fundamental skills in the spoken language have been acquired. With a good teacher, good results are often attained. Almost universally it is found that the children acquire a much better pronunciation than they can if taught at a later stage. In this sense the concept of a critical age for language learning does apply. The rapidity with which children master a foreign language under these conditions, however, is a function of many factors, some of which I will discuss later. It depends upon individual factors of motivation and aptitude, and upon the quality of the teaching they receive. The concept of a critical age in language learning applies with less force when the conditions for language learning are not similar to those that exist when the child is learning the foreign language as a medium of communication with his parents or his peers. We must therefore consider the factors that produce rapid progress when these conditions do not obtain.

Before considering these variables, let me devote

some attention to the role of time in language learning . It requires a considerable amount of time to acquire a language to a satisfactory level of proficiency. Even though it is often said that the rapidity with language is acquired in the young child learning his native language is remarkable, I must remind you that this still takes a large amount of time. By the age of 5, when the normal child has mastered the essential structure and vocabulary of his native language, he has had the good fortune of being able to spend nearly all of his waking hours in this process--a matter of some thousands of hours. At later ages, the student finds himself occupied with many other matters. It is small wonder that foreign language learning cannot be so rapid in adolescence or adulthood. Since language learning requires so much time, an early start means, first of all, that the child has more opportunity to learn.

For example, in a recent survey of university students specializing in foreign language study in the United States, I found that when other factors were held constant, those who had started their foreign language study sometime in the elementary school were clearly more proficient, on the average, than those starting in the secondary school, and these, in turn, were more proficient, on the average, than those who had started in the college or university. Clearly, those who started in the elementary school had had more time and opportunity.

Nevertheless, the time spent must be time well spent, --that is to say, time spent in motivated, active learning. The source of the motivation apparently makes little difference in the quality of the learning. Students can learn with equal effectiveness even though they are differently motivated. However, differences in motivation may cause the student to spend more time on some aspects than on others. The student who wishes mainly to learn to read the foreign language may spend more time in reading than he does in practicing speaking. Likewise, the student interested in oral use of the language may devote more effort to that aspect.

We find it useful to distinguish between intrinsic and extrinsic motivation. The former has to do with that motivation which derives from the student's interest in what he is actually learning or being taught, and from his feeling of success in having achieved at a certain level of mastery. The latter,--extrinsic motivation--derives from the student's recognition that he may be rewarded, if he is successful in learning, in some way that has nothing to do with the content of what he is being taught. The most common extrinsic reward comes in the form of school grades or marks, promotions, and other signs of the teacher's approval.

Although the situation may vary from student to student, from school to school, or even from country to country, I have impression that students of foreign

languages are more likely to be motivated by external rewards such as school marks than they are by interest in the subject taught. This is particularly true when a foreign language is a compulsory subject. It can be one of the most discouraging things to a foreign language teacher to find out that a student is not interested in learning the foreign language as such, but is motivated only by the thought of satisfactory grades, promotions, and the like. Such a student is not likely to devote as much time and effort to learning as a student who is intrinsically interested. From a developmental point of view, intrinsic interest is fairly easy to arouse in young children, less easy to arouse in children around the age of puberty and early adolescence, and then somewhat easier to arouse in students in their late adolescence, at least the more able of these. Whatever the case may be, students are generally better language learners if they have intrinsic interest in this learning, because they are more willing to devote the considerable amount of time that attaining mastery requires.

There are subtle psychological factors in motivation for foreign language learning. Some kinds of motivation are quite conscious--the motivations which are explicitly stated by students as their reasons for devoting effort. But there are other factors which appear to be less conscious--often associated with the personality configuration of the learner or with social attitudes. One

dimension in which these motivations vary is the extent to which the student is unconsciously willing to identify himself with speakers of a foreign language--to adopt, at least temporarily, their culture and point of view. An extreme form of this motivation shows itself in the student who unconsciously wishes to reject his own language and culture; at the opposite extreme is the student who rejects anything foreign, including foreign languages. We have very little evidence as yet concerning how these attitudes arise, but from what we know about personality development generally, they are likely to arise in the experiences of young childhood, --in the home or in the first years of schooling. In a country such as the United States, where the learning of a foreign language is not as urgently necessary as it is in many other countries, this is one of the major reasons for the policy of introducing foreign languages in the elementary school. It is believed that this policy will tend to make children more tolerant of foreign cultures at later ages, and indirectly make them better foreign language learners.

Let me now turn to the question of individual differences in foreign language learning that are associated not with differences in motivation, but rather with deep-seated, constitutional characteristics of the learner.

No doubt there are individual differences in most

kinds of learning situations. For years, psychologists have shown that some cluster of abilities called "intelligence" have important relations with overall success in school. From the thousands of studies that have been published on this topic, it appears that school success is to a considerable extent dependent on the student's mastery of his native language, on his ability to reason, and his ability to think in quantitative terms.

But with respect to foreign languages, one can ask the question, are individual differences in foreign language learning dependent upon the same abilities as other school subjects? In general, the research that I have done suggests that the answer to this question is in the negative. Foreign language learning is something special: success in learning depends upon a somewhat different set of abilities from those that other school subjects do. Therefore we will have to treat them separately. The case of foreign languages is somewhat similar to the case of music. Everybody knows that musical ability is something rather special: musical talent does not automatically accompany high intelligence, and it can indeed be found in some people who have only meager aptitudes for success in school in general. In the same way, talent for foreign languages does not automatically accompany high intelligence, and it may appear in some individuals who are not otherwise very successful in school. I am not suggesting, of course, that musical

talent and foreign language talent are the same; in fact, I think that in general they are very different, contrary to some fairly widely held opinions. Persons who combine musical and foreign language talents do exist, but from a statistical point of view this is a coincidence.

The proposition that here are individual differences in foreign language learning is not exactly self-evident, but it is abundantly supported by the common experience of teachers. Let us limit ourselves to the case of the person who is learning a foreign language at some time beyond the time he learns his native language. The matter of individual differences in the learning of the native language has interesting but different problems which will not concern us here. But if we take groups of children, say in the third grade, or in the seventh grade, or at the high school level, and particularly if we take groups of university students or adults, we find wide individual differences in the success they have in learning a foreign language--even if they are equally motivated and are given the best kind of instruction we know how to give.

Conceptually, I find it desirable to think of these individual differences as differences in the rate at which the person can acquire the foreign language. It is not an accident that we often speak of some persons as fast learners and others as slow learners. For if we can allow each person to learn at his own rate,

we will find that the rates of learning do vary widely. In fact, the evidence suggests that rates of learning are distributed like many other human traits, that is, according to the so-called "normal", bell-shaped frequency distribution. The majority of people learn at more or less average rates, while there are some who learn either much faster or much slower than the average. Up at the top of the distribution are a few people who may be called "geniuses" at learning foreign languages; these are the people we meet once in a while who seem to be able to acquire a foreign language almost overnight. At the bottom of the distribution are a few people who are virtual "idiots" as far as learning foreign languages is concerned. They may be brilliant in something else, like mathematics or poetry writing, but one may expect them never to get far in foreign language learning.

Several further observations may be made at this point. First, an individual's rate of foreign language learning is more or less constant; if he is slow at the beginning of foreign language study and also he is slow later on. It is rare that one observes a slow learner actually pick up speed, and if one does, it may be because of some extraneous factor, such as a suddenly increased amount of motivation and effort; in this case, the person was probably not a slow learner after all. Second, rates of learning, for a given individual, are

approximately the same regardless of what language he is studying--aside from the inherent differences in the difficulty of languages that apply to all learners. That is, a native-English speaker who is slow in learning French will be expected to be slow, relative to other learners, in learning any other language, whether it is Spanish (which is relatively easy, at least in the early stages, for English speakers to learn) or Russian (which is usually somewhat harder for English-speakers to learn than some other languages). Third, rates of learning probably do not change much over the course of one's life. The evidence for this is slim, actually, but common observation suggests that it may be true. Fourth, we do not know how to change an individual's characteristic rate of foreign language learning. Little research has been done on this question, unfortunately, but I will have some suggestions about it later on.

These individual differences in rate of foreign language learning may be spoken of as differences in foreign language aptitude, but in talking about foreign language aptitude I hope you will not infer that it corresponds to some bump on the head or some way in which the brain is constructed that causes good or poor learning. Exactly what foreign language aptitude is, in physiological terms, is a mystery. I don't know whether any aspect of it is inherited, or what aspects of it are learned. There is a little evidence to suggest

that certain aspects of it are indeed influenced by heredity, but this is very problematical. I would not want to leave the impression that foreign language aptitude is, on the whole, inherited. It may have some basis in very early learning on the part of the young child. In any case, we find ourselves forced to take the fact of individual differences in foreign language learning as a "given".

One thing we can do about individual differences in foreign language learning is to try to measure and predict these differences before the person actually undertakes foreign language study. I have spent a good deal of time doing research to make this possible, and I have been able to develop a practical measuring instrument for English speakers called the Modern Language Aptitude Test. This instrument, which is now available also in German and Italian, is designed for testing persons from the ninth school year up through adulthood, but it can also be used with the brighter students of the seventh and eighth school year. Another version of the test, now available in English and German, is designed for elementary school children in the third to the sixth school years. +)

+) English version available from The Psychological Corporation, 304 East 45th Street, New York, N.Y. 10017. German version available from Julius Beltz Verlag, Weinheim, Fed. Rep. of Germany. Italian version available from Organizzazioni Speciali, Via R. Franchi 5, Florence, Italy.

The senior form of the test has been validated on thousands of cases, and is being widely used.

The nature of these tests gives leads as to the nature of foreign language aptitude, at least of its psychological components. Foreign language aptitude is complex—it depends upon a number of rather separate and specialized traits of the language learner. I have identified four main abilities of this sort.

The first of these is something that probably has no parallel or counterpart in intelligence testing, and I always find it difficult to explain, perhaps because I am still not quite sure what it is, even though I can measure it in a number of different ways. It is something I have been calling phonetic coding ability, but before you draw too much out of that phrase let me try to explain. Basically, it seems to be the person's ability to apprehend a particular speech sound or combination of sounds and, at some later time, identify it, or recognize it, or recall it as different from some other sound or combination of sounds. Phonetic coding ability is phonetic because so far as I know it applies only to stimuli that can be considered as speech sounds. It does not, for example, apply to the apprehension and recall of groups of spoken digits, as in the usual memory span test, and certainly it does not seem to apply in the case of materials that can be presented and remembered in purely visual terms, like alphabetic letters.

Phonetic coding ability has to do with coding because I imagine that the person who is good at this ability is somehow able to "tag" or "code" the speech stimulus in the process of storing it in his memory. One can see how important such an ability is in learning a foreign language. In the early stages, one has to learn to recognize and also pronounce a series of foreign sounds, and this can be done best by a person who is inherently good at recognizing and remembering particular speech sounds. At later stages, one has to recognize and remember whole groups of sounds; for the person who is good at phonetic coding, perhaps these sounds are apprehended as single impressions, i.e. as Gestalten. This ability can be measured in a number of ways. Perhaps one of the best ways is to use a test that has to be administered individually: we pronounce a nonsense syllable or two, or perhaps a short phrase in a foreign language, and then give the subject a little mental arithmetic to do for about ten seconds before he is asked to repeat the sounds that he has heard. The delay is inserted in this test to make it necessary for the subject to store in memory the sounds he has heard; he is not allowed to repeat them on a purely imitative basis. This test seems to work well in the few instances when I have tried it, but it is of no use if the requirement is for group testing. We have to contrive various dodges and subterfuges to make this ability show itself

in a group test. One such dodge is to make the individual learn a new set of printed symbols for the sounds of his own language; I have tried having the subject learn a completely new alphabet, like the Devanagari alphabet used in Sanskrit and Hindi, but the best expedient seems to be to make him learn a new phonetic transcription using mainly the Roman alphabet. This sort of test is administered as a group test as a tape recording. Another dodge is to see whether the individual has acquired ready responses to phonetic-orthographic stimuli in his native language: in my Spelling Clues test, the individual has to recognize very rapidly the words represented by somewhat abbreviated, partially phonetic spellings of English words. There are still other ways of measuring phonetic memory, enough to suggest that it is an ability of wide yet subtle importance in dealing with language stimuli.

A second ability of major importance in learning foreign languages is what I have called grammatical sensitivity. Fundamentally, it is the ability to recognize--that is, be aware of--the grammatical functions of words and other grammatical elements in sentences, even in one's native language. Now to be sure, every native speaker of a language has somehow acquired, subconsciously, some kind of competence with the grammar of that language, in the sense that he automatically uses the syntax of his language in such a way

as to create understandable sentences. But not everybody, it seems, can bring this automatic competence to the level of awareness. Even linguists have trouble writing the grammar of their own language, let alone other languages. Even though everybody has been exposed to training in formal grammar at one or more stages of his school career, not everybody can perform certain linguistic tasks that depend upon his perceiving grammatical functions and relationships. Even training in formal grammar does not seem to "cut through" this inability. In one good test of grammatical sensitivity, used in my MLAT, the student has to find words or phrases that have similar grammatical functions in two different sentences. For example, if I give you two sentences: John gave Mary an apple, and Tom's brother interviewed Mr. Smith last Friday, the task is to find what word or words in the second sentence have a function that parallels that of apple in the first sentence. To do this, the subject does not have to know any terminology of formal grammar. He does, however, have to be able to make a conscious analysis of the grammar of the two sentences. Again, it is easy to see how such an ability would be relevant in foreign language learning, no matter what role grammar plays in the instruction, because the student does have to work out some sort of grammatical analysis of the foreign language he is learning.

A third major component of foreign language aptitude is another kind of memory ability--rote learning ability for the meanings of foreign language words and expressions. It is often noticed, in studies of paired-associate learning in experimental psychology, that students differ widely in their ability to acquire the meanings of a list of nonsense syllables in a short time; experimental psychologists find that back of this ability seems to lie a kind of facility for making use of the associations that one has for the things that are to be connected. Apparently this sort of ability comes into play in learning a foreign language. That is, one of the problems the learner has is that of "connecting up" the foreign words and phrases with meanings and concepts he has already acquired. This is true regardless of how a foreign language vocabulary is taught. Some foreign language teachers believe that vocabulary should be taught only "in context", and they advise students to avoid the use of vocabulary lists, flashcards, and the like. Perhaps this advice is wise--I am not persuaded that it is always wise, but even when vocabulary is learned in context, that is, in the course of learning dialogues or reading prose passages, there is still a problem of connecting the arbitrary foreign language sound patterns with meanings of some sort. We can rather easily test this ability by giving the student a short vocabulary list of foreign words and their

meanings, then testing him on his retention after a very short time.

A fourth major component of foreign language ability is inductive language learning ability. It can be best measured by giving the subject a series of sentences in a foreign language (which could be an artificial one) constructed and sequenced in such a way that it is possible to work out their grammar. My colleague in the development of MLAT, Stanley Sapon, worked out such a test, given with film strip, tape recorder, and test booklet. In fact he attempted to model the test after the most highly-approved audio-lingual teaching procedures. Some subjects "picked up" the grammar of his artificial language "Tem-Tem" very readily, by noticing the changes in words that accompanied changes in grammatical meanings, all well illustrated in changes in the pictures that accompanied the sentences spoken on the tape. Others did not seem to understand how to work out the grammar of Tem-Tem; in fact, perhaps they did not understand how a language is put together. Although the scores on this test were highly predictive of success in learning a real language, such as Chinese, we could not include the test in the commercial battery because it took too much time and equipment to give it. At any rate, it did provide us with insight as to one of the components of foreign language aptitude.

Another thing one can do about foreign language aptitude is to try to adapt instruction to differences in pupils. There are various ways of doing this. The most obvious one is to select only individuals with rather high language aptitude and teach only them; or one could move the cutting point down on the scale and use the test mainly to screen out the students who have a high likelihood of failure. This is the way the test is sometimes used, either by schools, or by organizations in which failure in foreign language training is costly both to the individual and to the organization. Use of the test as a selection device depends, then, on the practical situation and also to some extent on one's educational objectives and philosophy. Some would say that since the test is not perfectly accurate in identifying those who will fail, everybody should be given a chance to try learning a foreign language. Despite the high validity of the test in predicting rate of learning in a variety of situations, probably the best indicator of success in learning is a practical try-out of learning--provided the student is well motivated and he really is given sufficiently good instruction over a long period to allow his strengths and weaknesses to show themselves. In countries where no suitable aptitude test is available, a practical tryout of learning is, of course, the only possible mode of determining an individual's fitness for language study.

If the test is not used as a selection device, it can often be used as a guidance instrument, that is, as a measure that will show the individual with reasonable accuracy what his chances are of making good in foreign language study. Then the decision as to whether to study a foreign language may be left up to the individual. If the test shows that he has poor chances of being successful, but he still wants to try, he should be all means be given the opportunity to try.

The chief way in which a foreign language aptitude test could be used in normal situations, it seems to me, is as a predictor of the rate at which the individual could successfully master a foreign language. It would therefore be used as a means of setting up sections that would go at different rates, or it could be used as a means of individualizing instruction so that even within a given class, some students would be allowed to progress much more slowly than the average. Highly apt students can be given advanced tapes and workbook material to study by themselves, with occasional help from the teacher, and under certain circumstances they might be able to skip over a semester or a quarter and be placed in a more advanced section than normal. Slow students could be given extra help, or programmed instruction materials that would allow them to work very slowly; they might be allowed to take a year to cover the ground normally covered in a semester. The remaining students would constitute the majority of students and they would all

progress at approximately the same rate. Such a system, or something like it, would prevent what so often occurs --namely, the situation where the progress of a class is determined by the learning rates of its slowest members. Likewise, it would allow the language learning "geniuses" to capitalize on their gift. Some of these could easily complete a three-year course in two years or even less. I have had reports from teachers that sectioning students by ability in foreign language, whether measured by an aptitude test or on the basis of past performance, makes language teaching much more successful for the students and pleasant for the teacher.

A third way in which a foreign language aptitude test can be used has already been touched on--as a diagnostic instrument. I cannot claim that it has been deliberately designed for this purpose, and in fact, the diagnostic use of the test is somewhat limited by the fact that the subtests are somewhat short and limited in reliability. Nevertheless, I suggest that attempts be made to use it in this way. I have indicated some of the aspects of foreign language aptitude that we have tried to measure with the MLAT; often the pattern of scores that an individual makes on this test will indicate where specific weakness lie. For example, a person who makes relatively low scores on those parts of the test measuring phonetic memory may need special help in learning to remember foreign sounds and their combination; a person who makes a relatively low

score on the Words in Sentences test may need special help in learning foreign language grammar; and a person who does relatively poorly on the last test, the one of rote memory for vocabulary, may need special help in finding devices to help him remember foreign language vocabulary. It is even possible that special help given to an individual in the light of weakness shown on an aptitude test will, in the long run, improve his foreign language aptitude and thus accelerate his rate of progress. This is an area where research is much needed.

The fact of individual differences in foreign language aptitude may have a bearing on the theme of this conference. In the first place, the aim of foreign language teaching for a highly gifted student should probably be set much higher than for a student with much less aptitude. Highly gifted students should be encouraged to specialize in languages, to become teachers, interpreters, translators, and the like. In the study which I referred to previously I found that specialists in foreign language study at the college and university level were distinctly superior, on the average, to the general population of university students. For students of average aptitude, it is clearly possible to teach a foreign language to a satisfactory level of achievement, the time required varying somewhat with the individual's aptitude. For the students of low aptitude, the aim can be set only at a minimal level, and when educational and social factors are

such as to make mastery of the foreign language mandatory, it may be advisable to plan longer courses of study for such students.

There is also the possibility that different aims for language learning may be set in accordance with the pattern of the individual's aptitudes. Little research has been done on this possibility, however, and I can only speculate, starting from the little evidence we have. There is the possibility that speaking and listening, on the one hand, and reading and writing on the other, require somewhat different patterns of talents. Speaking requires a higher degree of what I have called phonetic coding ability, while reading and writing require higher levels of grammatical sensitivity. In my studies I have found that the degree to which the individual's phonetic coding ability is superior to his grammatical sensitivity is correlated to some degree with the extent to which the individual learner prefers speaking and listening to reading and writing and is more proficient in the former skills.

I have also given some thought to the problem of improving foreign language aptitude in the individual. In general, my conclusion is discouraging: foreign language aptitude is relatively resistant to attempts to improve it. But the experiments done so far on this question were of limited scope; the remedial training that was attempted was perhaps of too short duration, or of an

inappropriate kind, to produce any real change. I still believe that it would be worthwhile to try to institute training in grammatical sensitivity, and possibly also phonetic coding ability, hoping that this training would transfer to better language learning ability.

Learning of a foreign language is a process that merits careful study by the psychologist. Having a close bearing on the setting of aims are studies of the time required to achieve various levels of mastery. One of the first problems in such studies is to define these levels of achievement. In the United States we have developed reasonably valid and reliable tests of the individual's level of achievement in the more commonly taught languages, and it is now possible to start working out the parameters of foreign language learning. The results could be expressed in extensive statistical tables, or possibly even in mathematical formulae, to answer questions of the general form: Given a person of a given age, of a given degree of motivation, and of a given degree of relative language aptitude, how much time would be required to bring that person to a given level of achievement? In this paper it is not feasible to give details, but I can illustrate the sort of approach I have in mind by referring to a recent study I did of language training in the American Peace Corps. Included in this study were about 120 young people, average age about 21, who started learning Spanish without any prior background in that language.

By following these people from the start of their 12-week intensive course in Spanish up to the point where in the field, in South America, they reported that they felt they had no difficulties in using Spanish in their work, I was able to estimate that the person of average language aptitude needed about 6 months of intensive training, rather than 3, to achieve this subjectively-determined point of effectiveness. Spanish, of course, is a relatively easy language for English speakers; the figures would undoubtedly be somewhat greater if the language were, say, Tagalog. The language training section of the Foreign Service Institute of the US Department of State has worked out tables for the number of months that persons of high, average, or low language aptitude need to study different groups of languages to achieve sufficient proficiency. It would be useful to have similar information for children of younger ages, in order that better-informed decisions could be made about the length of time, and the time-tables, that ought to be instituted in schools. In the U.S. the tendency has been to underestimate the amount of school time young people need to study foreign language in order to arrive at a point of useful return. This is probably one reason why American foreign language learners have--at least in former days--tended to suffer by comparison with European language learners.

At the present time, aims have been set for the

achievement of all four language skills: listening, speaking, reading, and writing--at more or less comparable levels. American students, however, find it difficult to achieve listening and speaking skills at as high a level as reading and writing skills. In my survey of university students, their average scores on Listening and Speaking put them only at a 2 or 2+ level, while their scores on Reading and Writing put them at the 3 level of the State Department Scale (which runs from 1, "Elementary Proficiency", to 5, "Native or Bilingual Proficiency"). These measurements were taken after the students had been studying a foreign language for many years in some cases. It is harder, obviously, to achieve a given level of proficiency in Listening and Speaking than in Reading and Writing.

There is currently much controversy in the U.S. as to the desirability of setting the aim of achieving "perfect", i.e., near native, pronunciation in the foreign language. This has been the aim, even though rarely achieved. Now there are voices calling for a relaxation of this strict requirement. Mastery of grammar, vocabulary, and enough perfection of pronunciation to enable the student to be easily understood by a native speaker is though by some to be a more realistic goal. It would be most interesting to hear the opinions of European colleagues on this matter. I will be frank in stating that in the U.S. the French have the reputation of being more intolerant of foreigners' imperfect

pronunciation than speakers of other languages. In this matter, incidentally, it is useful to distinguish two levels of pronunciation accuracy--phonetic and phonemic. At the phonetic level, pronunciation accuracy would virtually match that of the native speaker, with faithful reproduction of all allophones and the like. At the phonemic level, pronunciation accuracy would be defined as a pronunciation that observes all the critical phonemic distinctions without necessarily reproducing phonemic variants. What level of pronunciation accuracy should we demand of our students of foreign languages? It seems to me that it would be highly appropriate to have this judgment made by native speakers of the languages involved.

Finally I come to that part of my outline which concerns problems of teaching method in relation to teaching aims. It seems obvious that there should be the greatest possible fit between the aims of the teacher and the aims of the student. On the one hand, it is the teacher's duty to fulfil the needs and aims of the student, and on the other, the teacher has some right and duty to educate or guide the student in what his aims should be. The teacher presumably knows more about the linguistic aims of language teaching than the student can be expected to know. Nevertheless, I have seen where there were gross discrepancies between the aims implicit in the content of the teaching and the students' aims. Most often these

discrepancies exist where students have mainly practical goals of wanting to learn to use the language as a medium of communication, where the teacher neglects these goals in favor of an emphasis on, say, literary appreciation and stylistic perfection in writing. The revolution in language teaching in the U.S. has caused teachers to realize that many students have mainly practical aims and to reorient their teaching methods in this direction, still preserving, however, an appreciation of literary and cultural values.

It is a truism that the types of tests and examinations set by the teacher are a prime means of communicating his aims to the students. A teacher may avow that he seeks to have his students reach high levels of foreign language speaking proficiency, but if he never tests them adequately in this, you may be sure that the students will put little effort into learning to speak. You may be amused to hear about the dilemma that a friend of mine faced when he was teaching a course in spoken Arabic at Harvard University. Harvard has a rule that requires that all course examinations be three hours in length, and that they be written examinations. Since writing was not taught in the course, how was he to examine the students? He finally decided that since there were just twelve students in the course, he could fit in twelve fifteen-minute oral interviews, one for each student, to test speaking proficiency. In the rest of the time he asked the students to write an essay on

better methods of foreign language instruction!

One final word about teaching methods and teaching aims. In his teaching method, what kind of notion does the teacher impart, explicitly or implicitly, as to the nature of language learning? In a speech at the 1964 Berlin foreign-language conference which perhaps some of you heard, I proposed that there appear to be two major theories of foreign language learning. To quote:

One may be called the audio-lingual habit theory, the other, the cognitive code-learning theory. The audio-lingual habit theory, which is more or less the "official" theory of the reform movement in foreign language teaching in the United States of America has the following ideas: (1) that since speech is primary and writing is secondary, the habits to be learned must be learned first of all as auditory discrimination responses and speech responses; (2) that habits must be automatized as much as possible so that they can be called forth without conscious attention; (3) that the automatization of habits occurs chiefly by practice, that is by repetition. The audio-lingual habit theory has given rise to a great many practices in language teaching: the language laboratory, the structural drill, the mimicry-memorization technique, and so forth. The cognitive code-learning theory, on the other hand, may be thought of as a modified, up-to-date grammar-translation theory. According to this theory, learning a language is a process of acquiring conscious control of the phonological, grammatical, and lexical patterns of a second language, largely through study and analysis of these patterns as a body of knowledge. The theory attaches more importance to the learner's understanding of the structure

of the foreign language than to his facility in using that structure, since it is believed that, provided the student has a proper degree of cognitive control over the structures of the language, facility will develop automatically with the use of the language in meaningful situations.

At the present time I am not sure that there should be any real opposition between these theories, for foreign language learning is both the learning of habit and the learning of unconscious rules. It would take me too far afield to discuss this matter here, but in the present connection I would only point out that language teaching may feature either one or the other of these ideas. The audio-lingual method as utilized in the U.S. features the development of "habits", while older textbooks feature the learning of rules. In my opinion a synthesis of these methods must be worked out. We must present to the student the correct aims for language learning: the development of basic, underlying competence in the system of the language and the facility in manifesting that competence in performance in meaningful communication situations.