THE NATURE OF PROBLEMS INVOLVED IN THE
ACQUISITION OF FIRST AND SECOND LANGUAGES.

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This study investigates some of the commonly held assumptions made about language acquisition which are encapsulated in the wording of an advertisement for Linguaphone language teaching materials. The assumptions, five in all, lend support to the popular, part misconception, which is also the fifth assumption, that the acquisition of second languages should be by the same process as the first language was learned. This part misconception continues to play a part in the development of materials and teaching programmes in schools. The first assumption, that there is a link between simple and natural in the two processes of learning a) of a first and b) of a second language, is examined against the background of Lenneberg's work "Biological Foundations of Language" in particular. The second assumption, that languages are learned primarily for oral communication, is examined against some historical aspects of language teaching in Europe and also against three modern assessments of language teaching aims, two from Sweden, the third from the United Kingdom. In examining the third assumption, that the student does indeed listen and then understand, the discussion centres on the different ways that second languages have been presented to the student. In Chapter four, where the assumption investigated is that the natural consequence of listening and understanding is that the student than speaks, the notion "speak" is analysed. The bulk of
this study is devoted to examining the fifth assumption that the acquisition of first and of second languages is a similar process.
Introduction

Chapter 1:
Assumption No 1: That there is a link between simple and natural in the two processes of learning a) of a first language and b) of a second language

Chapter 2:
Assumption No 2 that languages are learned primarily for oral communication.

Chapter 3:
Assumption No 3: that the student does indeed listen and understand

Chapter 4:
Assumption No 4: that the natural consequence of listening and understanding is that the student then speaks - without being in any way precise as to what "speak", in this context, might mean

Chapter 5:
Assumption No 5: that the learning of a first and of a second language is an identical process
Throughout this study, the terms primary or first language and secondary or second language refer to L1 and L2, without any other implications being involved.

References are to be found at the end of each chapter and the bibliography is to be found at the end of the study.
How quickly can you speak another language?

"The linguaphone method leads you into a new language in the same simple way you learned English as a child - the natural way .... You listen, you understand, and you begin speaking immediately."

This advertisement, by the Linguaphone Company, which appeared in a copy of Readers' Digest, could well have been made by any number of present day language schools or designers of foreign language courses. Depending on the yardstick taken, their methods of teaching a foreign language may lead to success. People do learn to communicate in a foreign language, whether in speech, or in writing, or in both, as a result of a wide variety of different learning methods - and sometimes in spite of those methods. This is by no means a modern phenomenon, nor is the interest in methods of presenting a foreign language. The ability to learn a second language has been evident in men from the earliest of days - the ability to learn language is probably the chief distinguishing mark of the human being. In the 16th century Michel de Montaigne drew on his own experience to propose the learning of a foreign language by direct contact with native speakers (Essais; tome 1): "En nourrice, et avant le premier desnouement de ma langue, il me donna en charge à un Allemand, qui depuis est mort fameux medecin en France, du tout ignorant de nostre langue, et tresbien versé en la latine. Cettuy cy, qu'il avoit fait venir exprez, et qui estoit bien cherement gagé, m'avoit continuuellement entre les bras. Il en eut
aussi avenques luy deuxaultitsmoindres en Scavoit; pour me suyvre, et soulager le premier: ceulx cy ne m'entretenoient d'autre langue que latine. Quant au reste de sa maison, c'estoit une regle inviolable que ny luy mesme, ny ma mere, ny valet, ny chambriere, ne parloient en ma compagnie qu'autant de mots de latin que chacun avoit apprins pour jargonner avec moy .... et sans art, sans livre, sans grammaire ou precepte, sans fouet et sans larmes, j'avois apprins du latin tout aussi pur que mon maistre d'eschole le scavoit." What is also both interesting and important, in view of arguments presented later and drawn mostly from Lenneberg's work, is that Montaigne mentions at what age all this took place: "Quant a moy, j'avoy plus de six ans, avant que j'entendisse non plus de francois ou ne perigordin que d'arabesque." 1

John Amos Comenius, in "Ianua linguarum reserata" (1631), established the principle of direct association between the word and the object, which formed the foundation principle of the teaching course he devised and which he perfected in "Orbis sensualium pictus" (1658). This base principle he extended to two ideas, covering the two general aspects of language, its vocabulary and its grammar, by advocating that a child should name nothing without being able to point to it and that every language must be learned by practice rather than by rules, especially by reading, repeating, copying and by written and oral attempts at imitation. Again it is both interesting and important to note that Comenius was concerned with the teaching of a foreign language to children.

The interest in the problems of language-learning is not
development is the crucial shift of emphasis from the insistence on certain methods of language teaching, on certain ways of presenting a language, to a concentration, at least at research level, on how a human being acquires language, whether primary or secondary. Such a shift has only been possible with the advent of technical devices such as sound recorders and computers and with the advent of increasingly precise brain surgery and analysis of brain function. This shift is at a time which has seen an unprecedented explosion also of the quantity of language-teaching methods, more or less directly tied to results of the underlying research; it is at a time too which has seen a formidable increase in the number of students of foreign languages. The net result has tended to be a muddled compromise between research theories and the practical necessity of having teaching material immediately available, the whole being further strained by the effective persuasion of manufacturers of the modern technical aids to language-teaching.

The Linguaphone advertisement implies that what has floored generations of school children is in fact very easy and effort-free, but beyond the general allusions, there lies, tacitly implied, a number of precise and complex problems.

One limitation imposed by the advertisement is that the prospective student has already "learned" the mother-tongue, in this case English. This is a limitation of passing interest containing two points of note; firstly, that the course has been designed for people with a mother-tongue
already established. That confirms a minimum age at which the course could be used and precludes much of what Montaigne wrote. This question of the age at which language is acquired has become a prominent one. Secondly it suggests that a language can be deemed learned at a certain point in a person's life-span, which confuses two further issues, namely that there is an objective entity called a language which is somehow complete, encompassed, finite and all of which is learnable; this view denies the vital spark of creativity, development and change in a language, and takes a simple, synchronic attitude. Even within that confine, consideration of the English used in newspapers, in Joyce's "Finnegan's Wake", in the street in Perth, Western Australia, or in New York, Capetown, Dublin or Glasgow tends to make such an idea dissolve into oblivion. To consider the question further, from a diachronic viewpoint, and the notion of English as a language entity containing also Early English, Elisabethan English and Victorian English, renders quite inconceivable any idea of a language being finite. The second point of confusion in this comment centres not on the language as an objective fact but on the person; there is an interesting implication that individuals reach a point of no further advancement in their command of their mother-tongue, a point which, if there is such a stage, will vary according to the individual's innate ability or his ability once affected by interference either accidental or surgical. This is an aspect altogether more interesting, coming close to the central issue of what it is that is acquired and is called language
In addition to this one limitation in the advertisement, there are assumptions covering five different but closely interrelated areas of language acquisition. These are:

1) that there is a link between simple and natural in the two processes of learning a) of a first language and b) of a second language.
2) that languages are learned primarily for oral communication.
3) that the student does indeed listen and then understand.
4) that the natural consequence of listening and understanding is that the student then speaks - without being in any way precise as to what "speak", in this context, might mean.
5) that the learning of a first and of a second language is an identical process.

These are assumptions made probably by the broad mass of people, as implied by the fact that Linguaphone has adopted them for mass appeal in an advertisement. But it must be questioned to what extent they are justifiable, for they have their roots deep in the very mire of problems concerning the acquisition of language. Nor are they by any means problems to remain cribbed and confined within the ivory towers of research departments. The financial outlay in educational establishments and on the media for the teaching of
This can be gauged perhaps by the slogan adopted in 1969 by the European Ministers of Education when they met under the auspices of the Council of Europe: "A modern language for everybody by 1980." W.D. Halls, writing in "Foreign Languages and Education in Western Europe", emphasized the magnitude of this commitment to teach second languages: "That the most striking feature of European education over the past decade has been the extension of modern-language teaching to a large number of pupils there can be little doubt." The tip of this astonishingly large iceberg can be seen in some simple figures mentioned by Stern in "Languages and the Young School Child." The first language laboratory in an educational institution in the United Kingdom was installed in 1961. In the four years until 1965 £1m. were spent on the installation of other laboratories. In the United States laboratories had increased in number since the late 1950's from 250 to well over 1,000 in higher education and from 12 to 10,000 in schools by 1966. During the last decade, with all the experimental French-teaching in the Primary Schools of England and Wales, more than 4,500 of the 22,700 primary schools have committed themselves to teach French. In the preparation of a new course for adults wishing to learn German, which was put on the air and on television during 1974, the BBC spent approximately £225,000.

Yet despite that very considerable commitment in financial terms, C Vaughan-James and Sonia Rouve are able to write in their "Survey of Curricula and Performance in Modern Languages" (1973) that "there seems to be too little known
only this, but also that there is a lack of an adequate taxonomy of language teaching objectives. The teaching and the teaching methods have multiplied, but the aims of that effort and the theories supporting the methods have been far less researched. W.D. Halls remarked that "Today the language teacher is presented with an embarrassment of choice. The result has been a flood of audio-visual and audio-lingual aids of all kinds. In fact the language laboratory and other ancillary aids have been brought into use before a proper rationale for their exploitation has been evolved."

The Linguaphone method is but one course making use of some of these aids and the assumptions embedded in the claims, although made in the context of an advertisement, shadow nonetheless some of these basic, little researched problems of language acquisition. Of the five assumptions isolated above, the last will generate the main bulk of this study; but the other four, each of which could be treated as a mere subdivision of the last assumption, do contain elements of considerable importance which need separate consideration.


4. C. Vaughan-James and Sonia Rouve: Survey of Curricula and Performance in Modern Languages, 1971-72; Centre for Information on Language Teaching and Research, 1973: P. 11 para. 3.00

Assumption No: 1: "that there is a link between simple and natural in the two processes of learning a) of a primary language and b) of a secondary language."

In that no special conditions are required beyond a minimal socialization of an infant and a certain minimum cerebral function, the learning of the mother-tongue may be described as natural. Furthermore it is part of the nature of the human being to learn and use a language form which, although it contains certain similar aspects, is fundamentally different from the limited series of communication signals learned and used by other animals because it is infinitely variable and because every human being re-creates language when acquiring it, rather than simply learning a finite selection of communication signals, a point which has already been briefly discussed in the elaboration of the first, minor limiting factor implied in the Linguaphone claim.

That to acquire language is natural to the human being, rather than culturally enforced, is supported by several researchers. Geschwind and Levitsky found that when they had exposed the top of the temporal lobes, two-thirds had a particular portion of the left temporal lobe enlarged conspicuously - that part which was identified a hundred years ago by Wernicke as being the cerebral region of language activity. Such a discovery in the brain of a person who had already acquired language could be said to have resulted from that acquisition-activity rather than have been involved in the cause
Tendency to speak is automatic. Lenneberg could not, for example, find any great difference in the rate or pattern of development of speech in normal babies of deaf parents and those of normal parents. Chomsky, in 1965, further supported, from a theoretical standpoint, that to acquire language is part of human nature. "If competence is a necessary and sufficient condition of performance, then competence must be present before comprehension or production of language by the child can take place. Its acquisition cannot therefore be explained in terms of behaviour." Chomsky elaborated his notion of the Language Acquisition Device as a compensation for this particular lacuna. In 1967, in "Biological Foundations of Language," Lenneberg wrote about the genetic foundation of behaviour that "We have constructed a picture of behaviour consisting of a fixed matrix (that is, species-specificities delimited by characteristic anatomical and physiological processes) which an individual can never learn to transcend, coupled with varying degrees of freedom for combining existing built-in skills and traits" and further that "... we may expect that language, just as the other types of behaviour discussed in this chapter, is determined to a large extent by biological potentialities." Later in his study Lenneberg observed that "Language is the manifestation of species-specific cognitive propensities. It is the consequence of the biological peculiarities that make a human type of cognition possible." That language-acquisition is natural to human-beings within the two very extreme conditions set down at the start of
nearer to those extreme conditions than to the norm, showing that the mastery of language by an individual may be accomplished despite severe peripheral anomalies - this will indicate that cerebral function is the determining factor for language behaviour. One example of such a case has been recorded on a 16mm. sound film at Pennsylvania State University concerning "the Acquisition of Language in a Speechless Child." In 1966 Fuller conducted experiments with two cerebral palsied children, aged 20 and 14, with IQs at 60 and 70 respectively and with speech ability of 3–7 year olds. Paula Menyuk noted in 1971 that "the experimenter concluded that the acquisition of the structures tested followed the same sequence as that observed with normal speaking children except that acquisition was stretched over a longer period of time." Despite severe restriction in cerebral-function, language was nevertheless acquired to a certain point.

In 1964, Lenneberg, Nichols and Rosenberger completed a three year study of sixty-one mongoloids and found that in every case "the sequence of learning phases and the synchrony of emergence of different language aspects remained undisturbed by the disease." Although the quality and the rate of acquisition are affected by environmental factors, the ability to acquire language at all is innate.

A great deal of work has been carried out with deaf children who, if totally deaf from birth, might be said to be near the minimum requirement of socialization for language-acquisition
to take place. In his study of eighteen such children, born in addition to deaf parents, Lenneberg noted that "all eighteen children vocalized often during concentrated play; the quality of their voices was quite similar to that of hearing children, and in certain respects the development of their vocalizations was parallel to that observed in hearing children, although the deaf did not develop words." Here too, in this extreme situation, the children showed a natural potential for language-acquisition which could only be realised by a particular form of "socialization", namely specialized teaching, to compensate in part for the severe handicap.

Perhaps, then, it might be more accurate to say that the potential for language learning, or language competence, is natural to men, that it is part of an innate ability which will be developed under those basic conditions of minimal socialization and a certain minimal brain function. It should be further added that the minimal socialization probably needs to be effected before a certain critical age is reached, usually in early puberty. There is, needless to say, no documented case of a human being living in total isolation from the human community up to an age beyond that of puberty, which could support Lenneberg's proposition that language can only be acquired during a certain critical period of childhood. The nearest approximation to this situation is the inadequately documented and almost apocryphal case of the wild boy of Aveyron from the eighteenth century - a case, which although scarcely authenticated, does at least accord with the Lenneberg propositions!
In his discussion of McNeill's paper on "the Creation of Language by Children" at the 1966 Edinburgh conference, "children are born with a biologically-based, innate capacity for language acquisition", the Linguaphone comment that this acquisition is also achieved simply needs clarification. In the paper just referred to, McNeill wrote that "at the age of eighteen months or so, children begin to form simple two and three word sentences. At four, they are able to produce sentences of almost every conceivable syntactic type." In thirty months therefore, language is acquired, that has a syntax of sufficient complexity and flexibility to allow the four year old's language to approximate more nearly to that of adults. This appears to be remarkably fast acquisition, a suggestion supported by Chomsky and Miller in 1963; "How an untutored child can so quickly attain full mastery of a language poses a challenging problem for learning theorists. With diligence, of course, an intelligent adult can use a traditional grammar and a dictionary to develop some degree to mastery of a new language; but a young child gains perfect mastery with incomparably greater ease and without any explicit instructions. Careful instruction and precise programming of reinforcement contingencies do not seem necessary. Mere exposure for a remarkably short period is apparently all that is required for a normal child to develop the competence of a native speaker." In his paper "Implications of recent psycholinguistic developments for the teaching of a second language", presented in 1968, Leon Jakobovits estimated that approximately 3,000 hours
were required for first language learning and that between 250 and 500 hours were required for second language learning by high aptitude people, figures which led him to conclude that the natural rate of language acquisition can be greatly accelerated. Taking these figures in conjunction with some others estimated by Nelson Brooks in "Language and Language Learning" (1964) - notably that at four years of age some children produce over 1000 words an hour against an average of 400 and that at five children produce an average of 10,000 to 15,000 words a day - the conclusion might be drawn that the speed of acquisition of the first language is not so astonishing, remembering that the greatly reduced number of hours mentioned for second language learning would also be accompanied by a greatly reduced volume of second language usage, or, put differently, a greatly reduced volume of overt practice.

But the notion of "simple" in connection with means of acquiring language does not necessarily and only include the notion of rapidity of acquisition. Miller and Chomsky mentioned the role of effort: "But a young child gains perfect mastery with incomparably greater ease." This concept of the effort involved is difficult to assess when comparing the learning processes on first and second languages. About learning the mother tongue and in a discussion about linguistic universals, Calder wrote: "One is led to conclude that a grammar is no more learned than, say, ability to walk is learned. There are certain aspects of walking, certain aspects of gait that may be culture-dependent and may be learned. It is also
true that there are undoubtedly some superficial aspects of language which are learned and which vary from language to language, but it seems that the deeper properties do not vary and are so abstract that it is hard to imagine how they could be learned."

It is perhaps the nature of the conditions and of the circumstances in which second languages are usually learned which gives rise to the belief that their acquisition is not simple in that it requires considerable effort. Apart from the general, but extremely important, parts played by the atmosphere of the learning situation, the attitude of the child towards school in general and language learning in particular, and the presence or lack of motivation for learning a language, there are also the conditions of limitation which engender a feeling of effort - the language to which the child is exposed is neither always selected by him nor controlled by him; his rate of learning is controlled, his physical surroundings, despite the use of film and tape, are restrictive and usually out of any context suggested by the language to which he is exposed and he is frequently confined to bounds of correctness in his use of the language, a correctness which is certainly based on the adult-language and which is a notion of which he is uncertain even in connection with his native-tongue.

In "The Analogy between First and Second Language Learning" Vivian Cook distinguished three areas of divergence which he called development, error and grading. In connection with the first area, that of development, he wrote that "The two
language by a series of evolving hypotheses; we are assumed to learn our second language by building it up rule by rule;" further that "The products of the child's successive grammars are evaluated, not by their consistency with his interim grammars but by their conformity with the rules of full native competence." When considering the area of error, Vivian Cook wrote that "While in the theory of first-language acquisition errors are an integral part of the process and show what the child's interim grammar does not yet include, in second language teaching it is usually thought that errors are extremely harmful"—an attitude on the part of teachers more probably arising from the school-room atmosphere of encouraging the good indirectly by focussing on the elimination of the bad rather than on any conscious application of a language-acquisition theory. Further, in connection with the third area of grading, Vivian Cook points out that "According to McNeill, practice is not relevant to acquiring the native language. If it is also irrelevant to second-language learning, then the second-language learner must be given more opportunity to perceive patterns at the expense of time devoted to practice." To summarize his points, Cook argues that a method of second language teaching based on what is considered to be the process of first-language acquisition would have at least to meet four requirements:

1) that it would allow the learner to progress by forming a series of increasingly complete hypotheses about the language.
indeed encourage, the learner to produce sentences that are ungrammatical in terms of full native competence, in order to test these hypotheses.

3) that it would emphasize the perception of patterns rather than the intensity of practice.

4) that its teaching techniques would include only partial repetition of sentences, verbal play, and situationally appropriate expansions of the learner's sentences.

These four requirements illustrate some of the divergences from the probable process of first-language learning which the teaching of a second-language often takes; in addition there is a hint in each of the four that a measure of constraint is imposed and that effort is required in the acquisition of the second-language because of the limitations forced by the teaching.

It would at this stage be as well to bring greater definition to the difference between a first and a second language. For the large majority of Western Europeans at least, the difference is clear; the first-language is that used in the home, the community and is also the language of instruction in the school. The second language is taught in the school and is foreign to the home, the community and the school itself. In this situation of the majority the first-language is established before schooling, and therefore,
before second language learning, is begun. This is the
situation upon which Vivian Cook was commenting, and for
which Linguaphone provides its courses. But it is a
situation fundamentally distinct from a variety of others
where a second-language is learned; that of a language-
minority group living within the culture of another language
(the speakers of Welsh within the community of English
speakers, French Canadians, the Basques, the particular
situation of the Flemish speakers of Belgium and of the
Afrikaaner or English in South Africa); that of a language
group complete on its own, geographically and culturally, but
dependent for trade on a larger community using a different
language (the Scandinavians, the Luxembourgers); that of the
individual family living within a foreign-language community.

These situations are clearly different from the average one
first mentioned, but the interest lies in trying to isolate
whether the language-learning processes are in any way
similar. The one point of unity between any of the situations
in which an individual is learning to acquire two or more
languages is the aim of that individual, whether consciously
taken or not, to be bilingual, in its crudest possible meaning
of being able to communicate, however simply, in more than one
language. In his study of "The Bilingual Individual" Einar
Haugen made the point that, although aptitudes, opportunities
and motivation may vary widely from individual to individual,
"A crucial factor in the extent of bilingualism is the age at
which the second language is learned." He drew up three
categories of bilingualism based on age: infant, childhood,
An example of infant bilingualism was extensively documented by Leopold during the studies he made from 1939-54 of his daughter. "It appears that for more than a year after she began speaking, she had only one language system, welded from English and German materials .... But with awareness of language difference at age two years two months, and the rapid growth of English grammatical mastery from two years one month to two years six months, she learned to keep German elements pretty well out of her English; a similar success with German had to wait until a trip to Germany, because of the dominance of English in her American environment."

Childhood bilingualism, where a second language is established during early school years, but not necessarily at school, and after the first language has been established, was favourably considered by Einar Haugen because of the continued mental plasticity of the child - a notion which is dealt with at greater length in Chapter 5. Penfield in 1953 wrote that "once functional localization of acquired skills has been established, the early plasticity tends to disappear;" that is, no set age for the disappearance of mental plasticity can be given; it is dependent on the maturational rate of the individual. However the upper age limiting this class of bilingualism coincides roughly with the onset of puberty.

Adolescent and adult bilingualism refers to the learning of the second language, by whatever means, at an age when mental plasticity has disappeared, an age, as already mentioned, usually associated with puberty. "Puberty, with its passage
which to some extent inhibits the kind of submission to a new norm that language learning requires" (Einar Haugen).

It is to be particularly noted that in all these cases, what is at issue is not the method by which the languages were acquired but the age at which the acquisition took place. The emphasis is strongly on the mental processes involved in the acquisition procedure. In 1954, Osgood wrote that "the psychological mechanisms of this storage process have recently been stated by psycholinguists in terms of decoding and encoding habits," a line of enquiry from which grew the concept of compound and co-ordinate bilinguals, the first referring to those who acquired a second language once a primary language had been established, the second to those who learned two languages simultaneously.

In 1958 Lambert, Havelka and Crosby published in "The Influence of Language Acquisition Contexts on Bilingualism," an affirmation of the existence of two such systems. Working on the hypotheses "that experience in separated language acquisition contexts enhances the functional separation of the bilingual's two languages while experience in fused contexts reduces the functional separation of the two language systems" they concluded that "the theory of co-ordinate and compound language systems has been given empirical support and the defining characteristics of these systems have been extended. The co-ordinate bilinguals, in contrast to the compound bilinguals, appear to have more functionally independent language systems." This conclusion was drawn as the result
of a series of tests designed to define the degree of
separateness of the two language systems in the compound and
the co-ordinate bilingual. But the authors were at pains to
point out that "as yet, no adequate psychological theory has been
offered to account for bilingualism."

The theory of the two types of bilingualism was supported,
but no light was shed on the manner of acquisition. What is
however relevant to this stage of the study, the investigation
of the implied connection between "simple" and "natural" in
language acquisition, is the confirmation that the learning of
a second language within the context of infant bilingualism is
as natural and as simple as the learning of any primary language,
in the sense that it is natural to the human being to learn
language and that it is simple in so far as it is part of the
maturational process. To learn a second language in the
context of childhood or of adolescent and adult bilingualism,
where, in both cases, a primary language is already established,
is more complicated; it is not natural or simple in the same
sense and when lateralization of cerebral function has been
completed around the age of puberty, the ability to abstract a
second language system, without it first being reduced and
categorized into some teachable unit, appears to be dependent
on the prior establishment of a primary language system. In
childhood bilingualism, before that lateralization takes place
and when there is still mental plasticity, it is thought that
such abstraction of a language system is probably accomplished
more simply, that is more quickly and with less conscious effort,
but the process must involve differences from that of infant
bilingualism since a primary language has already been acquired.
The problems surrounding the acquisition of secondary
language, in the context of childhood and adolescent or of
adult bilingualism, remain largely unclarified for we do not
have appropriate data. In the discussion on his paper "Speech
Development: its anatomical and physiological concomitants,"
Lenneberg wrote that "Second language learning is a very
confusing phenomenon. There are about a hundred different
variables. It is very difficult to evaluate second language
learning." Such confirmation was further remarked upon by
Ervin earlier in the same discussion. "It is a common belief
that a very sudden change in facility in second language learning,
especially phonetic, occurs around puberty, but anybody who
studies these cases is puzzled by the exceptions .... thus
children may fail to learn, while adults may learn a second
language perfectly and lose the first. For these reasons, it
appears that an organic explanation for the difficulties of
second-language learning by adolescents and adults may not
be as adequate as it first appears."

In conclusion it can be said that the terms "simple" and
"natural" have a very different significance, when applied to
the primary learning of language, whether that involves one or
more languages, from when they are applied to the learning of
a second language. In the former case, the learning
procedure is simple in the sense that it is also natural; it
forms a part of the natural, maturational development of the
child. In the latter case, the simplicity depends on many
factors, some environmental, some to do with the ability of
the individual, and further depends on whether "simple" is to
whether the learning procedure is natural or not depends largely on environmental factors, if naturalness here implies that it is not considered unusual, but it is not natural in the same sense of forming part of a maturational development.
References for Chapter 1

1. N. Calder: Language and the Brain (from The Mind of Man by N. Calder, BBC 1970)


   John Wiley & Sons, Inc: 3a P 21, 3B P 28, 3c, P374 3d, P139


5. Lenneberg E.H.: The Natural History of Language, P. 237


   (see note 6)


11. N. Calder : Language and the Brain (from the Mind of Man by N. Calder, BBC 1970)


13. quoted by Haugen E. : The Bilingual Individual (see Note 14)


15. quoted by Einar Haugen (see note 14)


Assumption No: 2: that languages are primarily learned for oral communication.

Of the two forms in which language is made manifest, the spoken and the written, the latter, in the natural state, is the derivative form of the former. Only in a special situation does this appear not to be the case, where, for instance, a language no longer spoken remains extant in the written form only. Similarly, except in very special cases, such as the sufferer from anarthria reported on by Lenneberg in a case report in JASP 65, the primary language, or in the case of compound bilinguals, the two or more merged languages, is learned for oral communication.

When however the position of the student of a foreign language is considered, the whole issue of aims and methods and motivation becomes rapidly less clear and precise. In answer to her question "Where do I go now?", Alice received the answer "That depends on where you want to go." One of the major problems that has beset modern language teaching has been to determine precisely that. In 1955 I.C. Thimann wrote in "Teaching Languages" that "Language teaching ... suffers because its aims are ill-defined. We have never decided if we should teach languages for use, or merely as a discipline". One might reasonably wonder why these two suggested possible aims should be mutually exclusive.

In 1929, the Incorporated Association of Assistant Masters
in its annual report wrote in their "Minimum in the Teaching of Modern Languages" that "at present our aims are largely determined by the external examinations conducted by the Universities." The Association pointed out that therefore the aims, although perhaps suitable for future University undergraduates, were beyond the reach of the average non-intellectual student. What is interesting in particular is the selection of five proposed aims for these latter students, aims to be achieved at the age of 18+:

1) that they should read and understand straightforward narrative and description in the foreign language, in prose and in verse.

2) that they should be able to give proof of their understanding by expressing in English what they have read in the foreign language.

3) that they should be able to read aloud in a clear voice, with a reasonably accurate accent and reasonably accurate intonation, and with expression.

4) that they should be able to ask and answer simple questions on subjects familiar to them.

5) that they should be able to write a few very simple sentences on very ordinary topics either as free composition or from a consecutive passage in English.

The requirements in the first aim and the third are most likely to evoke feelings of disagreement today - notably the
made clear whether these aims were stated in order of importance or were of equal importance, however it is abundantly clear that the place of the spoken language was considered relatively unimportant. All comprehension, except of the simplest nature as suggested in aim number four, was to be based on written language sources and four of the five aims involved written responses.

Of more profound interest still is the prefatory comment of the I.A.A.M. that aims of language teaching in schools are largely determined by the examinations devised and conducted by the universities; interesting because the aims have been deemed confined to the specific requirements of a certain type of examination and also because the method of examining becomes quickly assumed to determine the means of teaching the language. That to increase the ability to understand the written form of the foreign language, that language should be taught through reading; that to improve accent and intonation—which, when reading aloud, of necessity also involves comprehension—the teaching of the language is therefore determined with regard to its method. There is vividly present here the confusion between what \* rightly should be two separate problems; how should, or can one examine a person's ability in, or command of, a language on the one hand, and on the other, how does that person acquire the language to be tested in the first place.

The aims of the I.A.A.M. could well be the methods of examining a person's ability in his mother tongue; they do
Indeed examine only certain aspects of that person's command of the language and in no way would they affect the method of learning the mother tongue. Practice in answering this type of question would be required but that too has nothing to do with the acquisition of the primary language. A secondary language is probably acquired in a fundamentally different way, but there is likewise no necessary connection between the examining methods on the one hand and the method of acquiring the language on the other.

This area encompassing how a second language is learned and what the aims for learning it are - whether they be for examinations or not - has remained, although central, an area rarely penetrated by a sufficiently bright and sustained light. In the opening chapters of his book "Teaching a Modern Language", Vernon Mallinson examined briefly some of the more important influences in Europe on the teaching of a secondary language. The preoccupation with methods of teaching as opposed to insight into how secondary languages are probably acquired is clearly perceptible: "All these pleas for a more natural approach to language-teaching are a clear indication of how firmly entrenched was the idea of language teaching on a basis of paradigms, tables, declensions and conjugations; of how teachers had come to lean more and more towards the formal side of instruction and to make grammar-teaching, not a means to an end, but an end in itself. When once the Latin tongue had ceased to be a normal vehicle for communication, and was replaced as such by the vernacular languages, then it most speedily became a mental gymnastic, the supremely dead language, a disciplined and systematic study of what was held to be indispensable as a basis
then intended and made to produce an excellent mental discipline, a fortitude of spirit and a broad humane understanding of life .... And when under the pressure of circumstances a modern foreign language had to be found a place in the school curriculum as a serious time-table subject, it was considered natural, right and proper that it should be taught along these patterned lines." 3.

However, against this burdensome weight of methodology are also to be found some insights into how a secondary language might be acquired. The thread of Comenius' ideas was picked up in Germany in the eighteenth century by Bernard Basedow whose influence was sufficiently great not only for Prince Leopold of Dessau to give him the wherewithal to found and run a boarding-school which was at the same time a training college for teachers, but also for Goethe to write of him in "Diner zu Koblenz im Sommer, 1774."

Zwischen Lavater und Basedow

Sass ich bei Tisch ..... 

Prophete rechts, Prophete links, 
Das Weltkind in der Mitten."

Languages were to be taught by speaking and then by reading, and grammar was not to be introduced until late in the course - use was made of games, pictures, drawing, acting plays and reading on practical and interesting subjects. The principle provoked the antagonism of theologians and the anger of the philologists busily defending their classical stronghold. The principle involved his intuitive assessment of the need of
where language was appropriate and in which appropriate language would be used. The aim went far beyond mere language teaching and was "to form Europeans and World citizens and to prepare them for as happy and as useful an existence as possible." 

Plus ça change.....

In 1880 the publication of François Gouin's "Art d'enseigner et d'étudier les langues" provided an early impetus for the Direct Methodists. He was inspired by his son's play with a model water-mill: "Whilst doing all this, he expressed all his acts aloud, dwelling most particularly upon one word - and this word was the verb, always the verb. The other terms came and tumbled about as they might. Ten times the sack was emptied, refilled, carried to the mill and its contents ground in imagination." The element that Gouin brought into language teaching was a further refinement of Comenius' and Basedow's work earlier. The different sentences that he gave to be drilled were dramatised and the activity of the children was intense and precisely directed. "The foreign language is presented throughout by simple sentences following each other in logical sequence. There are about twenty sentences in a selection. Fifty selections constitute one series. Several series combine to form one general series, and of these, as we have seen, there are five."

In 1882 from the University of Marburg, Wilhelm Viëtor published his "Der Sprachunterricht muss umkehren." Viëtor moved further along the lines of Comenius, Basedow and Gouin in focussing more on the language as a structure to be internalized.
He too insisted that the spoken language became the basis of instruction: "it is through the ear that the child learns its mother tongue, it is through the ear that a more mature person must begin the study of a foreign language." But he went on to propose that language is made up of "speech patterns," that grammar should be learned inductively and that translation is only for the linguistically mature.

All these thoughts led to the rise of the Direct Methodists and the enthusiasm for their methods, following two conferences held by them, one in 1898 in Vienna, the other in 1900 in Leipzig; an enthusiasm which, as with the Behaviourists in the 1950s and 1960s in America, over-reached itself. "A Roussean-like belief in the infallibility of Nature was all the rage", wrote Cloudesley Brereton in 1930.

But two basic problems have always underscored the teaching of foreign languages. The first is that the pressure of circumstances has involved the premature application of learning theories, whether intuitive or not; and the second is the extreme difficulty of assessing how a language is learnt - the variables are still so many. Comenius, Basedow, Gouin and Victor developed methods based on their observations of children using their mother tongue and on their reflections on how children learnt their mother-tongue. In each case from a small point of intuition or of observation there grew and flourished a complete method and the interest became absorbed in the development of the method.

It has only been in the very recent past that the small point of light shed by the intuition or observation could be made
equipment such as computers and sound recorders, and also techniques of brain surgery to be developed in order to investigate in great detail two fundamental aspects of secondary language learning, notably the learner and that which is to be learned. In addition it is only recently that detailed research has been undertaken, particularly in Sweden and in the United Kingdom, to determine what the overall pattern of language teaching aims is and to what extent those aims need modifying.

Until the early 1960's investigations into the role played by the major and minor hemispheres of the brain with regard to language were limited to accident cases. In the 1960's the operation to sever the connection between the two hemispheres was perfected as a treatment for otherwise intractable epilepsy. A number of tests were conducted in California from 1962-65 with patients who had undergone this operation and the results published in "The Bisected Brain." This work was directed towards investigating the function of the cerebral hemispheres with regard to language and not secondary language learning in particular. Nevertheless any further insights into the physiological aspects of language can only be to the good. The Californian psychologists found that although the minor half was speechless - that is no word was uttered when a known object was flashed for one tenth of a second before the eye connected with the minor half - it was not wordless; the word describing that same object could easily be picked out by the hand controlled by the minor half.
that although nouns in particular and also adjectives were handled by the minor half, there was no evidence that verbs were understood at all. That is, the major half controlled the essential elements which go to make up language as opposed to the formalized set of signals learned and used by other animals - signals which in addition have much in common with the "verbless" language of the minor half.

These findings of the Californians are in accord with those of Lenneberg which he published in 1967 in "Biological Foundations of Language." They lend support to Lenneberg's proposition that there is a critical period for first language learning which ends with the onset of puberty when the maturational processes of the brain reach a stage of equilibrium. This in turn may have significance for the learning of a second language; indeed it has already had a considerable bearing on the sudden mushrooming of foreign language teaching in primary schools during the mid-1960's, based on the notion that secondary languages too are more easily assimilated while there remains plasticity in brain function. In France 300 primaries were involved in experiments in 1965-6; in Hungary considerable official interest was shown, with Russian being introduced at Grade V (aged 10); in Poland, Russian became compulsory for all from the fifth year of schooling; in Norway all pupils start English or German in the fifth year; in Italy there was a rapid spread of language teaching in primary schools, with particular interest in the Padova region where a project was controlled by Professor Renzo Titone; in the United
The results are less dramatic and less hopeful than was expected. Stern in "Language and the Young School Child" commented that "... it can be stated that the trends which were observed in 1962 have continued and have gained in strength. This does suggest that in the coming five to ten years national systems will, with increasing urgency, be faced with the question of when and how to introduce foreign languages into education, what scope to give to such teaching and what results to aim at." He added that "effective teaching of languages to young children is a feasible achievement" but that no claim can be substantiated that children learn more effectively. Only a more restricted claim could be made "that children have been proved to make an effective start in language learning under school conditions and this early start appears to lay a good foundation for continued language study throughout the total period of full-time schooling." The impact of computers and sound recorders has been of far greater significance for language teaching, particularly at research level. They have rendered possible a more detailed analysis of what is to be learned, the foreign language, than had hitherto been possible. In 1959 at the conference held at Sevres, Professor Gougenheim publicized his work on le Francais Fondamental. 'Half of all the language spoken in conversation by Frenchman was based on some 57 lexical items, and almost all French conversation could be encompassed by some 1300 words. Following in Professor Gougenheim's footsteps,
similar work is being carried out in London by Professor Quirk on "English Usage" and also on English at the University of Utrecht; Professor Moser is investigating German at Mannheim. This is perhaps one of the most significant contributions of Linguistics to the teaching of foreign languages; "It is, in fact, this principle of limitation which Linguistics has introduced into language teaching." (W.D. Halls.)

Since 1965 there have been three programmes - two in Sweden, one in the United Kingdom - researching into the use made of foreign languages. The first, conducted by Urban Dahllof, "Kraven på gymnasiet" was made in connection with the reform of the pattern of the curriculum and attempted to quantify the demand for modern languages. Of particular importance were found to be

1) reading comprehension
2) ability to follow lectures
3) ability to converse
4) ability to conduct correspondence with the help of a dictionary and a grammar.

In 1969, Inger Larsson of Malmö College of Education made an enquiry into the demand for language skills (in German only) by Swedish employers. In rank order of importance the results showed the demand to be for:

1) reading
2) listening
3) speaking
4) writing

In 1970, a decision was taken to attempt a pilot survey of
"It was clear that two different sets of information were needed. On the one hand there was a need to survey the current output of foreign language skills from the school, university and further education systems. On the other hand, it was necessary to try to find out whether the output profile matched at all closely the profile of demand for languages outside the requirements of the educational system itself for teachers." "The Survey of Curricula and Performance in Modern Languages 1971-72" by C. Vaughan-James and Sonia Rouve was published in 1973. "Foreign Languages in Industry/Commerce" by Keith Emmans, Eric Hawkins and Adam Westoby was published in 1974. Sir Peter Tennant wrote in the foreword: "This report is competent and thorough in its examination of the foreign language needs of this country, but it is depressing .... The report gives us a picture of opportunities missed by management .... Employees on their side are obviously distressed at having so little use made of their language skills." The four most important skills to emerge were

1) reading in the foreign language
2) conversation in the foreign language
3) translating into English
4) writing in the foreign language

One of the implications to which the researchers drew attention was that: "Our survey has shown the preponderant use in industry and commerce of the skill of reading and the need for ability to converse in the foreign language. These are also the skills most likely to be brought into play in leisure use
films, reading for information and conversing in the foreign language when on holiday abroad. The implication is that reading and conversation should receive emphasis in the schools, whereas writing in the foreign language, whether in the form of translation or of free composition, must be justified for inclusion in the syllabus on grounds other than that of likely use in employment. It does not, of course, follow from this that foreign language study, as such, in schools and colleges should be confined to reading and conversation exclusively. Other work in the foreign language must continue to be included as part of the general language learning process."

This is a crucial point. Whatever the specific language skills may be that are to be used at a later stage, whether in industry or in examinations, the common, base requirement is a competence in the language; the skills are a development of that basic knowledge, and to a certain extent must be part of it. Modern language courses in schools and colleges are not and should not be geared to the requirements of industry and commerce. Where foreign language teaching is provided for every secondary school student in Austria, Cyprus, Luxembourg, Holland, Sweden, West Berlin and parts of West Germany and for 65% in the United Kingdom, the requirements cannot be limited to industry and commerce. The aim for the teaching of languages in the schools must be non-vocational - the vocational training in languages will be only for a very small minority of school students taking languages and must be a further development of
What is most urgently required is a realistic appraisal of the way in which a student can most effectively acquire a foreign language in a school which is not in the country where that language is spoken; much work has been completed, but W.D. Halls wrote that "The data presented show that much research still remains to be done, both as to the optimum age for beginning the learning of a foreign language and also on the frequency and intensity with which teaching is carried out. Nevertheless it is plain that the total language exposure of pupils in European schools has been augmented. Even a decade ago the picture presented would have been vastly different."  

What happens in the classroom in the way of teaching methods is more than ever linked to work at research level and it is here that urgency is greatest, perhaps along the lines indicated by Leon Jakobovits in "Implications of recent psycholinguistic developments for the teaching of a second language." He wrote in 1968; "A radically new psycholinguistic theory of language acquisition has been proposed which emphasizes the developmental nature of the language acquisition process and attributes to the child specific innate competencies which guide his discovery of the rules of the natural language to which he is exposed. Imitation, practice, reinforcement and generalizations are no longer considered theoretically productive conceptions in language acquisition. The implications of these new ideas for the teaching of a second language lie in the need for a controlled exposure of the student to linguistic materials in a manner that will facilitate his discovery of the significant features of the language."
References for Chapter 2


4. quoted by Mallinson (see note 3) P.7

5. Swann's translation (1892) of Gouin's "art d'enseigner et d'étudier les langues." 1880 (quoted by Mallinson; see note 3; P.10)

6. Mallinson (see note 3) P 11-12

7. Viêtor, quoted by Mallinson (see note 3) P 14


9. The Biseected Brain; talk on radio 3, BBC, February 1975


12. H.H. Stern (see note 11) P. 27-28


15. quoted by W.D. Halls (see note 13) P. 17


17. W.D. Halls (see note 13) P. 45

Assumption No: 3: that the student does indeed listen and then understand.

This and the next chapter will be confined to considering the situation of the student learning a secondary language through a teaching programme, whether at school or individually at home. In addition they will not be wholly confined to those teaching programmes where the target language is presented orally.

It might reasonably be questioned why the target language should be presented orally. W.D. Halls refers to the inefficiency of conventional methods, stating that "the amount of time spent in acquiring even a modest competence in the language was out of all proportion." Strevens wrote in 1966 in "Papers in Language and Language Teaching" that the reasons for the decline of the Grammar-Translation method are complex, particularly since many have undoubtedly learned by this method. "But modern thought believes that other methods are generally more effective, more rapid and more relevant to the changed aims of the profession." Further that the spread of the Oral Approach "reflects the modern acceptance of speech as the primary form of language, with writing as an imperfect representation of it."  

To view the Oral approach as the modern, new approach is to fall into a serious error. The brief references in Chapter Two to the ideas of Comenius, Basedow, Govin and Viètor fittingly illustrate this. One of the best known of the Direct Method courses, the Cours Français du Lycée Perse, was published in Cambridge in 1914, with, it should be added, the Preface:
Moreover many of the methods in the Nuffield language courses, using games, pictures, play-acting and reading on practical and interesting subjects, were an integral part of Basedow's teaching in the eighteenth century. In a treatise published in 1648, "Methodus linguarum novissima," Comenius wrote what might be considered a very modern idea: "Pictures are what most easily impress themselves in a child's mind, to remain lasting and real children need to be given many examples and things they can see, and not abstract rules of grammar." "It was the first real attempt made at presenting grammar inductively," wrote Mallinson. One might wonder whether pictures still have the same power.

Alongside the ideas of these men were also what might be called the more conventional; ideas aimed at a reduction of any kind of oral work to an absolute minimum and at a thorough teaching of a disciplined mastery of grammar and syntax. These were spread forcefully and effectively during the middle of the nineteenth century by Karl Plotz who, according to Mallinson, "managed to dominate the teaching of modern languages in Germany (and indirectly throughout Europe) for the remainder of the century. He divided his texts carefully into two parts, the one giving clearly the rules and necessary paradigms, the other
sentences for translation into French, all involving close application of the grammatical rule enunciated in the first part.

It is then far nearer the truth to say that what has become known as the traditional, conventional or translation approach is not older than the so-called modern, oral approach but that both have co-existed uneasily for several centuries. It is probably also true to say that the traditional approach was maintained for reasons of a more general nature to do with attitudes in schools than because it was an effective means of teaching a foreign language.

It is no more true to suggest that the oral approach has now superseded the traditional approach; in the early stages of language teaching it almost certainly has, but at the more advanced stages this is by no means the case. The reasons for its adoption in the early stages is none too clear either. W.D. Halls gave a negative reason, quoted at the start of the chapter; the positive reason is generally couched in terms similar to these used by Antonie Mensikova in the contribution to "the Prague School of Linguistics and Language Teaching" (1972): "Palmer himself wanted to imitate as much as possible the procedure by which a child learns its mother tongue." Vladimir Barnet wrote in the same book: "If audio-oral methods are applied in the initial stages of language-learning to the exclusion of the written form of the language, it became possible to bring the acquisition of the foreign language closer to the learning of the mother-tongue." There is an
apparent and fundamental error in this reasoning, stated clearly by Osgood and Sebeock in "Psycholinguistics, a survey of theory and research problems" (1965). "All available evidence, Berlitz not withstanding, indicates that these (acquisition of primary and of secondary languages) are qualitatively distinct developments except in those cases when a child at an early age becomes a co-ordinate bilingual in a secondary language. Particularly if we enquire into the later acquisition of a secondary language ... these are best viewed as related but quite separate topics."

Nevertheless the oral approach and the teaching of languages to younger children is a direct result of the work carried out on the acquisition of primary language by psychologists and neuro-physiologists; Vivian Cook stated this connection clearly in "The Analogy between First and Second Language Learning": "In recent years a number of the techniques that have come into language teaching have relied implicitly on there being a close analogy between the way that a child acquires his native language and the way that a student learns a foreign language."

Perhaps there is a move running through Western European language teaching to combine what is good in both the strictly oral approach and the conventional approach, a combination forming the basis of Renzo Titone's integral method as outlined in 1962 in "La preparazione dei manuali moderni per l'insegnamento delle lingue straniere; criteri didattici". "A truly complete method which ought to aim at the four basic automatisms (to speak, to understand by listening, to understand by reading, to write) but
them to the immediate objective of making understood the dimensions and the manners of the culture of the people which speaks the language ..." "It is this method," wrote W.D. Halls, "which embodies the basic skills, but does not exclude the use of other methods where applicable, and which aims also at contextualisation and contact with cultural reality, which is becoming generally acceptable in Western Europe today." Such a scheme, requiring an intense participation on the part of the student, raises several other non-language problems. "The result is that pupils are often encouraged to be active in the use of materials which are not worth being active about." 

One of the aspects of the oral approach which continues to run as a thread through Titone's integral method is that the medium of instruction is increasingly in the foreign language itself, although notably less so at sixth form level in England. In Hamburg there is a clear directive: "Die Unterrichtssprache ist Englisch." Halls considers that "this use of the target language as the teaching medium represents one of the most notable advances made over the past decade." 

It also represents an interesting link with the theories of primary language acquisition and with the work of neurophysiologists, particularly when considering the early stages of the teaching of a foreign language. Does the teacher speak freely and naturally and without restraint of vocabulary or structure when instructing in the foreign language or does he confine himself to known vocabulary and known structure, expanding and combining both as an example to the pupils? Does
vocabulary and structure? What precisely is the purpose of instructing in the foreign language? For as Lenneberg wrote:

"Most individuals of average intelligence are able to learn a second language after the beginning of their second decade, although the incidence of "language learning blocks" rapidly increases after puberty. Also automatic acquisition from mere exposure to a given language seems to disappear after this age, and foreign languages have to be taught and learned through a conscious and laboured effort ....... Once the critical period during which resonance may occur is outgrown, one language is firmly established, and exposure to new and different languages is no longer resonated to."³

Whether the language source being presented to the student is live, recorded or written it is invariably accompanied in the early stages of learning by some means of identifying the meaning. In traditional courses, this means is often translation; an immediate possibility for contrasting the primary and the target languages is presented, a possibility which many linguists would wish realised. Koplin wrote in 1968 in "Developments in Applied Psycholinguistics Research" that "Modern linguistics has made important contributions by recognizing that the student's native language has an important bearing on the approach that should be taken in the teaching of a second language and that this approach will vary depending on the linguistic relationship between the two languages."³ In 1972 Josef Vachek quoted, in "the Linguistic Theory of the Prague School" in support of the idea of the contrastive method
mother and the target language, from Chomsky's comments on intuitions into language: "As a matter of fact, the existence of this linguistic consciousness or awareness appears to be the only safe ground on which the teaching of a foreign language can build." This is perhaps the vital point - the essence of translation when used as a teaching method is to crystallize and make objective the internal structure of both the mother and the target language, not simply to convey swiftly the meaning of an otherwise incomprehensible statement in the foreign language. This is not what is normally understood by the Translation method. The setting up of such oppositions would require in addition the realization of one of the most strongly-made pleas by Halliday, McIntosh and Strevens in 1965 in "The Linguistic Sciences and Language Teaching": "What is mainly at fault, in our view, is the approach to language, and the descriptions of language, on which the teaching is grounded .... The answer is not, however, to abandon grammar, the answer is to use good grammar, and to re-examine its role in the teaching of language .... This is the main contribution that the linguistic sciences can make to the teaching of languages; to provide good descriptions."

Perhaps a clue to the nature of these much-sought after better descriptions is to be found in a comment by Smith and Miller in their "Genesis of Language" (1968). "First, surface structure; then base structure. Most behaviourist theories have assumed this order, with notable lack of success." Surface structure is one aspect, connected primarily with stress and
Intonation, or syntax, which, in turn, is one of the three basic aspects of language structure, the other two being sound and meaning. In his "Acquisition of Language" (1970) McNeill illustrated the difference between surface structure and base or deep structure with the following examples.

1) They are buying glasses
2) They are drinking glasses
3) They are drinking companions

Sentence 1) differs from sentence 2) in surface structure, although both are grammatically of the same pattern. Sentence 2) differs from sentence 3) in that, although both are of the same surface structure, they are of different deep structures. The relation between surface and deep structure in the sentences is different and the statement of this relation is made by the rules of transformational grammar. "Every sentence, however simple, has some kind of underlying structure related to some kind of surface structure by means of certain transformations. The substance of grammar consists of making explicit these three terms."

The underlying structure of the sentences is not present overtly; McNeill maintains that the acquisition of these linguistic abstractions is a universal phenomenon and forms an essential point of language acquisition. "In the case of linguistic development the simpler thing is to acquire a transformational grammar instead of a phrase-structure grammar .... Children seem unable to avoid forming relations between underlying and surface structures." This point has been supported by W.J. Griffin in "Children's Development of Syntactic Control" (1968) where it was noted that the work "of Brown and Bellugi (1964) offers what seems indisputable evidence for very early active
The suggestion is now emerging that there are linguistic universals which are not language-specific but which specific languages draw from each in their own way. In his "The Case for Case", a contribution to Bach and Harms "Universals in Linguistic Theory" (1968), Charles Fillmore asked three basic questions:

1) What are the formal and substantive universals of syntactic structure?
2) Is there a universal base, and, if so, what are its properties?
3) Are there any universally valid constraints on the ways in which deep structure representations of sentences are given expression in the surface structure?

In connection with the first, Lyons suggested "that every grammar requires such categories as Noun, Predicate and Sentence, but that other grammatical categories and features may be differently arranged in different languages." In connection with the second, Chomsky wrote in 1965 "that each grammar has a base component capable of characterising the underlying syntactic structure of just the sentences in the language at hand and containing at least a set of transformation rules whose function is to map the underlying structures provided by the base component into structures more closely identifiable with phonetic descriptions of utterances in that language." Bach further added that "a common assumption is that the universal base specifies the needed
Perhaps this assignment of sequential order to the constituents of base structures is what needs to emerge as the form of language-specific grammars which would allow clear oppositions to be set up between mother and target language for the purposes of teaching by a translation method.

Lenneberg touched on this relationship between deep structure and surface structure and the notion of language universals when considering the acquisition of primary language: "Thus the outer form of languages may vary with relatively great freedom, whereas the underlying type remains constant.... Because the latent structure is replicated in every child and because all languages must have an inner form of identical type (though an infinity of variations is possible), every child may learn any language with equal ease."

In the case of secondary language acquisition, there are of course differences which are fundamental; a primary language has already been acquired and there is a vital difference in the age at which acquisition takes place. Nevertheless if what is lost in a child once the primary language is well-established is what Lenneberg calls "resonance" to new and different languages, something which allows every child to "learn any language with equal ease," an ability to induce the latent structure of language, then perhaps what should be presented in a teaching programme is that structure which the student is no longer able to induce. This would imply for second language teaching a fundamentally different approach, a
(1968) and already referred to: "First surface structure; then base structure. Most behaviourist theories have assumed this order, with notable lack of success". What seems none too clear, particularly when considering the presentation of a second language, is what exactly would constitute the base structure to be presented. At the end of the previous chapter, mention was made of Jakobovits advocating "the need for a controlled exposure of the student to linguistic materials in a manner that will facilitate his discovery of the significant features of the language". In the same work, Jakobovits quotes McNeill: "... the child seems to honour grammatical distinctions in advance of the time they actually develop. This progressive differentiation of grammatical categories represents linguistic universals that are part of the child's innate endowment. It is as if he were equipped with a set of templates against which he can compare the speech he happens to hear from his parents." In the formal teaching of a second language, the language source from which the student is to learn, should, according to Jakobovits, be vitally different from the source of primary language learning for a child, the one controlled, the other quite unpredictable. However, it must be remembered that the reason for this difference is surely to be found as much in the totally different environment surrounding the two ways of acquiring language as in the possible changed function of the brain of the learner. There are, as Lenneberg pointed out, "about a hundred different variables", both of what is exterior to the
Nevertheless clarification of what constitutes the presentation of the base structure of a second language might well lead to a notable advance in the teaching of languages.

Where the language source presented to the student in the early stages of learning is oral, the accompanying aid in identifying the meaning is usually visual, in the form of pictures, film or the classroom situation. It is here, as W.D. Halls remarked, "in the use of educational technology for language teaching that the real breakthrough in ancillary aids has occurred." Basedow used pictures, mime and play-acting; Gouin concentrated on actions carried out by the student and described by him, an idea which persisted into the Cours Francais du Lycee Perse (1914).

Série A (Simple)

Ordres Questions Réponses

par le professeur ou la maîtresse.

1) Lève-toi. Que fais-tu? Je me lève
2) Sors de ton banc Que fais-tu? Je sors de mon banc
3) Va à l'estrade Que fais-tu? (Je vais à l'estrade
   Viens à l'estrade)
   (Je viens à l'estrade
4) Monte sur l'estrade Que fais-tu? Je monte sur l'estrade
5) Prends la craie Que fais-tu? Je prends la craie

But an immediate problem arises. Where the classroom situation is used, the range of language experience available is severely restricted. An effective expansion of this range is provided by the use of film, slides, and pictures, but once the
visual aids to substantiate comprehension of simple concrete nouns, a whole range of particular conventions must be learned in connection with the visual aids if they are to convey anything more than confusion when dealing with differences in tenses, with imperatives, with interrogatives, with negatives and so on, as can be seen in the drawings below.

If these aids are used in an attempt to banish the use of the mother tongue to convey meaning and thereby somehow to inculcate a pure form of co-ordinate bilingualism, avoiding interference from the mother-tongue, then they are surely misused on both realistic and a theoretical level. On the realistic level it is only too apparent in a language class that new foreign language material is checked against its mother tongue equivalent by individual students even if they are not
Osgood and Sebeok made clear that "When, after becoming a practical expert in his own, first language, a person starts learning a second language, new sets of encoding and decoding habits are being formed in competition with the old," regardless of the nature of the source of the foreign language.

Whatever the aid used to convey meaning, there are degrees of comprehension of the source material on the part of the student. What exactly forms the physiological action of comprehension remains an open question, with the work of, for instance, the Californian neuro-physiologists in brain operations, which was referred to in Chapter Two, being of great interest. The degree of comprehension can to a certain extent be controlled by the teacher - and indeed must be - when he determines how much of the source material he wishes to establish with great precision for retention and active manipulation on the part of the student and how much he wishes to be comprehended in a general way, with emphasis on the information imparted rather than also on the structure of the language used. That such a different degree of comprehension is no fictitious theory can easily be observed in any language class of any level. It is not difficult to construct sentences, whose length conforms with the probable memory span of the student, where the student is quite capable of reporting the information imparted, using his mother tongue, but not capable of doing so in the foreign language even if invited to repeat the sentence as if in dictation. "By and large", wrote Lenneberg, "it is true that young
is true of students of secondary languages, a point appreciated by examining boards in the setting of comprehension papers where a text in the foreign language has questions asked on it in the mother tongue, to be answered also in the mother tongue - a test devised specifically to overcome the problem of when a student understands but cannot answer in the foreign language.

In their investigations into the acquisition of primary language, Fraser, Bellugi and Brown noted in 1963 that "these experimental results might indicate that the procedure in acquisition of structures is first the capacity to imitate and then the capacity to comprehend and finally the capacity to produce these structures, but several factors make this conclusion questionable .... It is therefore possible that repetition is dependent on comprehension rather than the reverse."

But what precisely is comprehended? The examinations testing comprehension stagger indiscriminately from testing the comprehension of a particular grammatical structure to the comprehension of a particular word to the comprehension of one or two factual items embedded within several sentences. In the situation where a student is trying to acquire a secondary language it is vital to be clear what it is that the student must comprehend, that is, what he must acquire. In 1966 at a conference held in Edinburgh, McNeil read a paper entitled "The Creation of Language by Children" in which he discussed two points, the speed of acquisition and the nature of what is acquired. In relation to the latter he commented; "the acquisition of language can be regarded as the guided
innate capacity, a choice consistent with the evidence contained in the corpus of speech provided by the mature speaker to which a child is exposed.\textsuperscript{25} This is the basis too of the acquisition of a second language, except that the corpus of speech is specially selected. But for acquisition to take place it is essential that the grammatical structure is comprehended, and for that structure to be comprehended the source material has to be most carefully presented so that the structure is readily available.

At this stage of the study it might be concluded that the relationship between listening and comprehending is not only no simple matter but that there is a substantial difference in the nature of that relationship when considering the acquisition of primary language on the one hand and of secondary language on the other - a difference whose details will be substantiated in Chapter Five.
References for Chapter 3

1. W.D. Halls: Foreign Languages and Education in Western Europe: 1970 Harrap P.21


4. Mallinson (see note 3) P.17


1. W.D. Halls (see note 1), Pp 50-51


19. Lenneberg (see note 11) P. 377


21. W.D. Halls (see note 1) P. 57

22. Osgood and Sebeok (see note 7) P. 139

23. Lenneberg (see note 11) P. 285


Assumption No 4: - that the natural consequence of listening and understanding is that the student then speaks - without being in any way precise as to what "speak", in this context, might mean.

When considering the situation in which a second language is taught, it is clear that language production on the part of the student, whether in oral or written form, is not a natural consequence of understanding. Language production has to be invited, encouraged or urged from the student and the nature of that production has to be specified.

What is of much greater interest in this assumption, however, is the concept of "speak". When used in the Linguaphone advertisement originally referred to, there was an underlying implication that by using this particular method, the student, after listening and understanding, would then speak freely as though in his own native tongue. The ambiguity of the term "speak", exploited in the advertisement, forms the basis of much of the misunderstanding to be found for instance in adult classes where "conversation for beginners" is offered and when adult students choose such a course "because there is no grammar involved"

What characterizes an adult's use of his mother tongue is the comparative freedom. He is continually re-creating his own language; he is not bound by learned imitations. Chomsky wrote in a short article called "General Properties of Language" that "normal use of language has this property of unboundedness .... there is some abstract system of rules which, in some manner,
the individual's freedom of expression is not absolute, but within the structural limits of his language it is highly flexible.

However the chief concern of this study is not so much the nature of the acquired language as the nature of the acquisition process. It is in comparing the different processes of acquiring primary and secondary languages that the ambiguity of the term "speak" becomes more evident.

The development stages of a young child learning its primary language run from the cooing period to that of babbling — at about six months —, to the early stages of word-formation. Here McNeill, in "The Acquisition of Language" (1970), talks of the holophrastic stage, where single words possibly express complex ideas. "Holophrastic speech means that, while children are limited to uttering single words at the beginning of language acquisition they are capable of conceiving something like full sentences." After the holophrastic stage come the periods where words are combined in ever-increasing variety and complexity and at a rate of progress that seems bewildering. Braine recorded, in successive months, the number of different combinations of two word utterances from one child; they progressed from 14 to 2,500 over a period of six months. McNeill himself noted that the grammar of a twenty-eight month child contained three phrase-structure rules and that by thirty-six months this had increased to fourteen. The basic stages of this acquisition of the primary language are complete at about four years of age: "At the age of eighteen months or so, children begin to form simple two and three word sentences; at four, they are able to produce
The structure of a child's speech during these first four years can only be said to approximate more and more closely with increasing age to that of adult speech. It is in no way a simple imitation of adult speech, although it contains much that is imitation. "There is no question that children imitate the speech of adults. In fact they do it a great deal. Full 10% of children's speech at 28-35 months is imitation in the records of Brown. The fact that children imitate the speech of adults does not mean that the process of acquisition is imitation." (McNeill: The Acquisition of Language). Lenneberg further emphasized this last point in the discussion based on Chomsky's "General Properties of Language." "Imitation does not occur until language is totally acquired. Only at that point can you get children to repeat short sentences." The samples of child-language examined and catalogued by Fraser, Brown, Bellugi, Ruth Weir and Carol Chomsky, to name but a few researchers, give overwhelming evidence that it is far from a simple imitation of adult speech.

Briefly stated, the argument running through McNeill's "The Acquisition of Language" is firstly that children everywhere begin with exactly the same initial hypothesis; sentences consist of single words: secondly that as a child adopts additional linguistic hypotheses, and thus enlarges the space through which the structure of a sentence passes, more important differences appear between languages. It was from this linguistic viewpoint that Vivian Cook pointed out that a method of teaching a foreign language, if it were to be based on the way the first language is acquired, would have to allow the learner to progress
by forming a series of increasingly complete hypotheses about the language. As the hypotheses became more complete so the language of the child more closely approximates that of the adult and the freedom and flexibility to be found in the use of language by the adult is to be observed in that of the child.

In the case of a student learning a foreign language from a course, however, the situation is different. When he speaks, the student is required to maintain a level of correctness judged by the standards of adult language. Ill-formed sentences are not acceptable and, in the early stages at any rate, there is little or no flexibility of language-use. Responses to questions are often even dependent on the surface structure of the question remaining inflexible. "Comment vous appelez-vous?" may well elicit a correct response from a new student of French where "Vous vous appelez comment?" would leave confusion. The language source presented to the student in a foreign language class is more or less carefully selected. The selection is based on presenting aspects of the foreign language which increase in complexity and flexibility as the student progresses. The direction in which the student progresses is pre-determined by the course, whereas a young child learning its primary language has its progress determined largely by biological factors. Also the young child's language source remains relatively constant; it is the full, adult language which remains around him. It is not in any way graded.

However, even if in the initial stages of language acquisition the notion of "speak" means, in the case of secondary languages, imitate the language presented and, in the case of primary languages, generate language according to increasingly complete
hypotheses, there does come a time when both the student and the young child produce language which is not imitation and which is accepted as correct by the norm of the adult language. From this point on, to the moment when the sum total of the learner's language production is acceptable by the standard of adult language, the notions of "speak" become increasingly more closely related whether it is the acquisition of primary or of secondary language that is being considered. The acquisition of language has reached that stage of having what Chomsky called "this property of unboundedness".

Nevertheless, this is merely a description of a general progress in language acquisition; nothing is precise, nothing can be precise. It is not possible to say at which precise moment the student or the young child has gained flexibility; no more possible than to say at what point the target language has been acquired. In such a field as language acquisition there are no absolutes and no superlatives; all is comparative. W.D. Halls wrote that "since the prime object of language is communication" the skills to be acquired in rank order of importance should be comprehension, speaking, reading and writing. "Since perfection in these skills, even in the mother tongue, is almost out of reach, the minimum criterium is understandability." There could hardly be anything more minimal than that, but even that statement is not sound as a base premise since the notion of understandability depends on how refined a definition is required. To be intelligible in a foreign language when buying a packet of butter requires little or no language skill; to explain to your host how your mother always used to cook a special supper on your birthday would require considerable
some, simple unambiguous vocabulary; to persuade your host by argument that man's salvation lies in Man - or in God - requires a knowledge of the language denied to many for whom it is the mother tongue.

These first four chapters of this study have been intended, not as detailed analyses of the language acquisition process, but rather as dealing with several side-issues, relevant to that process and which were raised by the Linguaphone advertisement as being representative of commonly-held attitudes about language learning. The chapter to follow is intended, as was stated at the outset, to form the main bulk of this study with its examination of the acquisition of the primary language and then of the secondary language.
References for Chapter 4


   Harper and Row.

3. M. Braine : Ontogeny of English phrase structure : first phase :
   Language, 1963, P.39 (quoted by McNeill - see note 2)

4. McNeill (see note 2) P. 28

   (** in ** Psycholinguistic Papers: edited by J. Lyons

6. McNeill (see note 2) P. 105

7. see note 1

8. Vivian Gook : The Analogy between First and Second
   Language Learning : 1969, IRAL 7:3, Pp 207-16

9. W.D. Halls: Foreign Languages and Education in Western
Assumption No 5: - that the learning of a primary and of a secondary language is an identical process.

This is probably the most common assumption made concerning language acquisition. The purpose of this chapter is to examine to what extent it is correct to make such an assumption, for views on the subject vary widely. Mensikova, as was mentioned in an earlier chapter, pointed out that, in the teaching of second languages, "Palmer himself wanted to imitate as much as possible the procedure by which a child learns its mother tongue." J.B. Carroll commented, in a short paper read at the Amerika Haus in 1966 entitled "Psychological and educational research into second language teaching to young children," that "Opinion is divided as to whether second language learning is fundamentally different." He himself felt it was fundamentally different if the language was truly a second language, that is the learner would not come under the heading of infant bilingual. In the discussion on Lenneberg's article "Speech Development; its anatomical and physiological concomitants" Geschwind commented that "We probably learn a second-language in an anatomically different way from that in which we learned our first language. In first language learning, associations are made between actual objects in the environment and their names ...." He continued, asserting that first language learning is primarily visual-auditory/tactile-auditory whilst second language learning is auditory-auditory; that is, the second language is always learned against the template of the first language.

It is not that these views are contradictory; they merely express uncertainty. The reason that they express uncertainty
into the acquisition of primary language concentrated on observable linguistic phenomena, on what constituted the linguistic environment of the learning child and on what the same child said. What happened in the brain of that child was not-observable and therefore rigourously ignored. More recently the observable phenomena have, by their patterns, led to speculations, of great interest and of fundamental importance, on the brain mechanisms involved. However, where the acquisition of secondary language is concerned, the variables involved are so numerous and the volume of precisely observed linguistic data so slight that speculations on the brain functions are even more lacking in authority.

In order to try and clarify to what extent the processes of acquiring primary and secondary languages are similar, it would seem prudent to examine them both separately in the light of what is known, before proceeding to any form of comparison.

1. Acquisition of primary language.

The close observation of young children learning how to speak gives rise to three very simple, basic questions:

a) Why do children normally begin to speak between their eighteenth and twenty-eighth month?

b) how and why do they learn so quickly?

c) what do they learn?

In "Biological Foundations of Language" Lenneberg wrote in connection with the first of these questions: "The central and most interesting problem is whether the emergence of language is due to very general capabilities that mature to a critical minimum at about eighteen months to make language, and many
The development of children with various abnormalities provides the most convincing demonstration that the onset of language is regulated by a maturational process, much the way the onset of gait is dependent upon such a process, but, at the same time the language maturational process is independent of motor-skeletal maturation. In support of this latter point, that the language maturational process is independent of motor-skeletal maturation, Lenneberg cited the case of late-speakers, those children who do not begin to speak in phrases until after the age of four years old, but who have no neurological or psychiatric defects to explain the delay and whose linguistic environment appears to be adequate.

Lenneberg advances several examples of children with various abnormalities to show that the onset of language is regulated by maturational processes. He mentioned examining a fourteen month old child who had been tracheotomized for six months. The day after the removal of the tube and the closing of the tube-opening, the child produced the babbling sound typical of its age. It has already been noted earlier in this study that in the case of eighteen deaf children, who had been born deaf to deaf parents, they vocalized often during concentrated play and that the quality of their voices was quite similar to that of hearing children. Despite their handicap the pattern of their vocalizations and the development of those patterns was parallel to that observed in hearing children. But the deaf
In 1964 Lenneberg, Nichols and Rosenberger completed a three-year study of fifty-four mongoloids, during which they found that in all fifty-four cases "the sequence of learning phases and the synchrony of the emergence of different language aspects remained undisturbed by the disease." Fuller in 1966 conducted experiments with two cerebral palsied children, aged twenty and fourteen, with IQ's at sixty and seventy respectively. Their speech ability was that of three to seven year olds. Fuller concluded "that the acquisition of the structures tested followed the same sequence as that observed with normal speaking children except that acquisition was stretched over a longer period of time."

These examples lend clear support to Lenneberg's propositions that the age of the onset of speech activity in a young child is dependent on a certain maturational point being reached, a point which, with normal children, occurs, on the average, around eighteen months; in addition that this maturational process is independent of other naturational processes. However this second proposition needs qualification, for the language maturational process is independent of motor-skeletal maturation only to a certain point, there being, according to Lenneberg, an upper age limitation to first language acquisition. "There is evidence that the primary acquisition of language is predicated upon a certain developmental stage which is quickly outgrown at the age of puberty." The mongoloids examined by Lenneberg, Nichols and Rosenberger provided an interesting example. Their ages ranged from six
months to twenty-two years at the start of the three year investigation. At the end of that time the researchers pointed out: "But interestingly enough, progress in language development was recorded only in children younger than fourteen. Cases in their later teens were the same in terms of their language development at the beginning as at the end of the study. The observation seems to indicate that even in the absence of structural brain lesions, progress in language-learning comes to a standstill after maturity."

Indications of this upper age limit have come from the many cases of aphasia examined, whether caused by disease or by accident or by surgical intervention. It appears that the difference between childhood aphasia and adult aphasia is related, firstly, to speech-specific lateralized lesions in the brain and, secondly, to the fact that it reflects a potential for speech-specific physiological readjustment which ceases to function at puberty. Ordinarily the left hemisphere of the brain is more directly involved in speech and language functions than the right. Lenneberg noted that in the case of acquired aphasia- in the left cerebral hemisphere - there were markedly different results between adults and children. In the case of eighty-eight war veterans 50% had permanent or partial aphasia whereas amongst children "There is virtually not a single case in which a child who suffered insult at or before age eight failed to recover from aphasia." In the case of the children lateralization of brain function had not yet taken place and the right hemisphere, normally quiescent where speech is concerned, compensated for the injured left hemisphere.

The problem then arises as to when lateralization takes place. In children who acquired unilateral lesions before the
half had no delayed onset of speech, slightly less than a half had a delayed onset and a tiny proportion had no acquisition. This pertained whether the lesion was in the left or right hemisphere. In children aged between fourteen-eighteen months and ten years, unilateral lesions causing aphasia have a more marked influence if in the left hemisphere than if in the right; nevertheless recovery is comparable to the under fourteen month group. There is evidence here then of lateralization taking place, but the compensatory nature of the right hemisphere is still evident too. After eighteen years of age, aphasia is only very rarely produced by lesions in the right-hemisphere.

Lenneberg writes that when a child is at the stage when language acquisition is possible: "left-sided cerebral dominance is manifest in a large proportion of children. Left-sided lesions result in speech disturbances in 85% of the cases whereas right-sided lesions disturb speech only 45% of the time. In adults right-sided lesions cause aphasia only in about 3% of all patients - most of whom are left-handed."

Thus, no lateralization seems to be present before the age of two or three; from three to ten or twelve cerebral lateralization for speech is gradually established but can still be pushed back into the right hemisphere. After puberty, lateralization is normally firmly established to the left and the right hemisphere is no further involved in speech functions, although the work of the Californian neurologists referred to in Chapter One would seem to qualify this.

This language maturational point in a child is not then
processes, even if it is not wholly dependent either. The period eighteen months to two years shows the beginning of a period of slowed-down structural growth in the brain. From birth to two years the weight of the brain increases by 350%; from two years to twelve years the rate of increase has slowed to 35%; at fourteen years the brain is at adult weight, an asymptote is reached and the size of the brain does not change until old age and death. Shadowing the rates of increase of the weight of the brain, the growth of neurons shows the same rapid growth rate to age two years, then a slowed rate to maturity at puberty; the same basic trend has been recorded for biochemical maturation. Of this whole cycle, Lenneberg wrote: "The disequilibrium state called language-readiness is of limited duration. It begins around two years and declines with cerebral maturation in the early teens. At this time apparently a steady state is reached and the cognitive processes are firmly structured, the capacity for primary language synthesis is lost, and cerebral reorganization of functions is no longer possible."\textsuperscript{13}

The second basic question that is thrown up by the observations of children learning to speak concerns the speed of acquisition. Many of the recent researchers have particularly noted this. Chomsky and Miller, writing in 1963, remarked: "How an untutored child can so quickly attain full mastery of a language poses a challenging problem for learning theorists."\textsuperscript{14} David McNeill wrote rather more precisely in 1966 in his contribution to Smith and Miller's "The Genesis of Language" entitled "Developmental Psycholinguistics": "The fundamental
acquisition occurs in a surprisingly short time. Grammatical speech does not begin before eighteen months; yet, as far as we can tell, the basic process is complete by three and a half years. Thus a basis for the rich and intricate competence of adult grammar must emerge in the short span of twenty-four months."

Having noted the speed of acquisition, the question of how this is achieved is raised; and it is here that comparatively recent shifts in attitude to the methods of research have provided new insights. These were simply summed up by J.H. Fodor in 1966 in his article "How to learn to talk: some simple ways." "By comparing what is known about the input to this device (the child considered as a black box) with what is known about its output, something about its manner of operation and internal organization may perhaps be deduced". David McNeill in "Developmental Psycholinguistics" took the point further: "Our concern in the study of language acquisition is with the development of competence; only after we have understood this to some degree can we hope to understand performance.... It is possible to describe performance without explaining it, but if we wish to explain performance, we must show how it derives from competence."  

These attitudes represent a shift from the previous insistence that what happens in the black box can never be known and that energies should be wholly concentrated on what was observable, in an attempt it has been said, to justify this notion that Linguistics should be an exact science. That a child had any innate linguistic competence was not considered. The acquisition
Language was felt, at the outset, to be a result solely of a child’s experience, effected by a combined process of repetition, continued practice and largely governed by the influence of parental encouragement and reinforcement; and all this despite the basic facts of the acquisition of grammar set out by Slobin in "The Ontogenesis of Grammar" in the form of data offered to Professors McNeill, Palermo, Schlesinger and Staats for the theoretical discussion of which the book is primarily composed: "that the combinations of words and parts of words in child speech seem to be systematic rather than random, and productive rather than merely imitative or rote learned. In this chapter an attempt is made to demonstrate that child language is structured from the start, that it soon takes a hierarchical structure, that it tends to be regular, that the structures change in the course of development, and that they do not always correspond to adult structures."  

However, the accumulated wealth of observed data could no longer be contained by such an attitude, as David McNeill pointed out in 1970 in his "Acquisition of Language": parental approval as a reinforcer depends only on the truth value of what the child said - not on the grammatical correctness or the reverse - for "approval, if it is a reinforcer, will increase the probability of grammatically incorrect forms as much as it does grammatically correct ones." As an example he quoted the child question: "That Mickey?" which receives the parental approval: "Yes, it is."  

Jerry Fodor wrote, concerning this same idea, in "How to learn to talk: some simple ways:" "Notice that imitation and reinforcement, the two concepts with which American psychologists have traditionally approached problems about language-learning, are
as a learning mechanism only where the environment of the organism provides it with a model of the behaviour it is required to learn. But, by definition, the base structures of a language are not themselves possible utterances in the language ......

Since, however, base forms are not uttered by children either in operant babbling or at any other stage of verbalization, the desired behaviour is not available for selective reinforcement.\(^{20}\)

Paula Menyuk endorsed McNeill's comments in her book "The Acquisition and Development of Language" (1971): "The game of imitation and correction may be just that - a game which has very little to do with the processes of either comprehension or production since the infant seems to pursue his own course regardless of parental rejection or acceptance."\(^{21}\) She referred to an experiment by Kol'Tsova with children aged twenty months, which was concerned with acquisition of the lexical item "doll". The group who acquired the item more fully was that which had the word introduced in a wide variety of contexts, both syntactic and tied to action. The other group were introduced to it through unmarked sentences and were required to repeat the word. "The experimenter concludes that this difference can be explained by the fact that linguistic generalization comes about through observation of the variety of ways a lexical item can be used in sentences and actions."\(^{22}\)

In 1968 Leon Jakobovits examined the role of practice, also thought to be an integral part of the learning process. "Practice theory leads to two possible hypotheses about language acquisition; one is that when the child is exposed to a novel grammatical form, he imitates it; the other is that by practising this novel form,
child's imitation of adult speech is grammatically progressive, that is contains novel forms, and also that practice does not appear to stamp it in - a child's use of an English irregular past tense, for example, follows the pattern of being used correctly for a short period, then incorrectly when the child mistakenly makes it conform to the pattern of the regular formation, and finally correctly again. Slobin wrote, in "The Ontogenesis of Grammar" that "in all of the children who have been studies (and these are children of homes where standard English is spoken, and are usually first-born children) the first past tenses used are the correct forms of the irregular verbs." As soon as one or two regular past tense forms are learned, these correct, irregular forms are replaced with incorrect overgeneralizations from the regular forms. Only later is the differentiation finally made.

The same procedure has been observed by Ervin-Tripp in the learning of irregular plural forms. Nor is this peculiar to the learning of English; the abundance of inflections in Russian, for example, allows for many more overgeneralizations than in English. Gvozdëv, in "Veprosy izucheniya detskey rechi" (1961), Popova in "Grammaticheskiye elementy yazyka vrechi detey" (1958), as well as Zakharova and Slobin, have all noted this.

The explanation of performance, that is the demonstration of how it derives from competence, is dependent firstly on the provision of the data of performance. These data show a fascinating interplay in internal processes of maturation and of external influences. During the pre-speech period, from birth
Up to the sixth month there is a period of cooing, during which, Lenneberg noted, "some articulatory organs are moving, mostly the tongue, whereas during crying they tend to be held relatively still."
The sounds made during this period are vowel-like. At about the sixth month stage the cooing sounds become more differentiated into vocalic and consonantal components and new articulatory modulations appear.
"The first feature of natural language to be discernible in a child's babbling is a contour of intonation." Questions, exclamations, and affirmations begin to take a particular contour; an intonation pattern acquired from the particular language environment in which the child finds itself.
With further development, this whole becomes differentiated into component parts; primitive phonemes appear which consist of very large classes of sounds that contrast with each other." This is a phenomenon which was first noticed by Jakobsen in 1942. Paul Kiparsky, writing in 1968 in Bach and Harms "Universals in Linguistic Theory", drew on Jakobsen's work to support his proposition that the process of language acquisition consists in the child matching to the speech it hears a succession of hypotheses of an increasing order of complexity as these become available to him through maturational change. "For phonology this was clearly shown by Jakobsen's spectacular discovery that the child learns phonemes in a largely fixed order, which is determined not externally by the order or frequency with which they are heard, but internally by their relative linguistic complexity, as reflected also in the rules governing the possible phonemic systems of the languages of the world."
process proceeding from the general to the particular, under the
influential guiding of the particular language environment.
"The structure of contrasting sound-classes becomes more and more
complex, and the differentiation takes place along articulatory
dimensions until the complete distinctive feature matrix is
established."\footnote{7}.

This pre-speech period ends usually between the twelfth and
eighteenth month when unmistakable single words appear. What is
particularly fascinating during this stage is to note the
universal quality of much of the development. In 1965, Osgood
and Sebeok, in "Psycholinguistics; a survey of theory and
research problems" pointed out that "profiles of sounds produced
by new-born infants show no differences over racial, cultural, or
language groups. The determiners of frequency of emission of
given sounds appear to be physiological rather than situational."\footnote{8}

During the late babbling stage, shortly before the appearance of the
first words, differences became evident in the sound profiles of
children from different language groups; that is the language
community is the source of direct differential reinforcement.
McNeill elaborated further on this point of universality when he
wrote: "The direction of development during the first year of life
is from the back of the month to the front for consonant-type
sounds and from the front of the month to the back for vowel-
type sounds. Front consonants and back vowels provide a starting-
point for speech regardless of the language to which children
are exposed."\footnote{9} Paula Menyuk referred to the work of several
researchers who also dwelt on this same point. Murai and Lewis in
1965 suggested that early babbling is an exploration of sound possibilities and that this is gradually refined and limited to the range of a particular language. Nakazrina in 1962 noted, when researching into the acquisition of Japanese, that a study of utterances produced by Japanese and American children, which included a spectographic analysis of these utterances, showed that there were no differences in the speech sound repertoires of the two groups. In the case of the acquisition of Russian Tonkova - Yampol'skoya stated, in 1969, that patterns of intonation are developed and mastered (that is, they match adult patterns) much earlier than conceptual words and individual sounds - a point made too by Lenneberg in his outline of the stages of the pre-speech period.

Paula Menyuk made a general summary of this universal aspect of language acquisition when she wrote in 1971: "It is the case that various stages of language comprehension and production seem to occur universally. Regardless of the language spoken, in the child's linguistic community, he babbles, produces words and sentences. Further it has been found that the developmental course of the content of these babblings and presumably the structure of the early sentences show great similarity in the language produced by children from different linguistic communities. Regardless of his personal environment during the early years of life, the structure and order of the linguistic behaviour observed is not altered."

The data now available on this pre-speech period, drawn as it is from many different language communities, and representing a close observation of a child's performance, provides a pattern
which suggests strongly that the process of learning primary language is not dictated by the language itself. The rate of acquisition will vary according to a variety of aspects, some to do with the nature of the child, some to do with abnormal development, some to do with the social environment. Morley in 1957 in "the Development and Disorders of Speech in Childhood," showed that his investigations indicated that "variables" such as "mother's ability to cope", loss or temporary absence of either parent, or socioeconomic class, are not predicative of the age of emergence of various milestones in speech developments. There is something in the process of acquisition which is not dependent on the environment. But he observed "that the language habits which emerged at the common time (in a series of cross-social status studies) soon showed signs of impoverishment in the underprivileged."

Nevertheless the stages of primary acquisition show such a fascinatingly clear pattern of similarity across cultural and linguistic frontiers that the data forming the basis of that pattern, although only of performance, give an indication of what it is in the black box of the child that permits it to learn with such apparent facility and speed. Developmental studies support the view that no natural language is inherently more complicated or simpler to learn by a growing child than any other language. There seems to be no relation between progress in language acquisition and culturally determined aspects of language. These studies and the patterns that are revealed by them are far from concerning themselves only with the pre-speech period. The manner of development in the acquisition of the language
about the formidable task of language learning. It is difficult to see why the child learns so quickly, taking only about thirty months from the production of the first unmistakable single word to age four years when sentences of "almost every conceivable syntactic type" are produced. David McNeill, in "The Capacity for the Ontogenesis of Grammar," proposed that "these two problems - speed and abstraction - are intimately related, the speed of acquisition being possible because of the way in which children develop abstractions." But perhaps explanation of the speed of acquisition is of lesser interest that the explanation of the manner of acquisition. Such an explanation follows from the collation of the data.

In "Acquisition of Language" (1970) David McNeill proposes three separate stages of acquisition from the moment where the first single words appear. The first he calls holophrastic where single words are uttered which he suggests express complex ideas and are in effect primitive sentences: "Holophrastic speech means that while children are limited to uttering single words at the beginning of language acquisition, they are capable of conceiving something like full sentences." Holophrastic speech appears to have three functions, a point noted also much earlier by Leopold. It can be expressive (anger, like, disgust); it can be conative (usually imperatives) and it can be referential. It is because of the referential quality that holophrastic speech corresponds to the full sentences of adults, and, in addition it is the referential quality which is unique in that it never appears with either expressive or conative implications or both; this is because it fulfils the function of a predicate. When gathering
information concerning her young daughter P. Greenfield wrote in 1967 that "it is of considerable interest that most of the words noted are nouns; those that are not nouns are adjectives, that is attributes of nouns. Verbs are completely missing."\(^{37}\)

Paula Menyuk, in her "Acquisition and Development of Language" (1971) underlined the notion of holophrastic speech given by McNeill: "Early meaningful utterances appear to be not words but sentences and their function is not to name objects but to make statements, declarative or emphatic, or to ask questions."\(^{38}\)

Both Menyuk and McNeill propose that, in view of these points, the first rule in the base component of all languages is

\[ S \rightarrow (\text{and/or}) S. \]

The holophrastic stage, which lasts approximately from the twelfth to the eighteenth month, is followed by the telegraphic stage, which in turn runs from the eighteenth to the twenty-fourth month. It is the period which runs from the first appearance of two word utterances to the beginning of what McNeill describes as the third and last stage, that of patterned speech. It is the speech of this period, the telegraphic, that allows one to ask whether there are any formal regularities in the structure of utterances; at the holophrastic stage only speculation can be made about the child's underlying grammatical knowledge. Several investigators have dealt with this phase (Braine in 1963, Brown and Fraser in 1963; Miller and Ervin in 1964) and their findings have been remarkably similar. Brown and Fraser, in their investigations into the speech of the very young in 1963, gave the following examples of the speech of this period.

two boot

hear tractor
This last example in particular is very close to patterned speech but as with all the other examples of telegraphic speech, it "generally leaves out articles, prepositions, auxiliary verbs and inflexions in verbs and nouns, whereas it adds ungrammatical word combination." (McNeill: Developmental Psycholinguistics 1966). As will be shown later in reference to Slobin's work on the acquisition of Russian, this comment by McNeill applies not simply to the acquisition of English but to the acquisition of any primary language.

Early on in the examination of the performance data provided by children at this stage of their language learning it was suggested that the structure of these utterances, which are deviant forms of the structure of the equivalent utterance from an adult, resulted simply from the short memory span of the young child. However McNeill pointed out two difficulties for such a theory. The first is "the factual problem that children learning Russian also omit inflexions from their early speech, as Slobin showed in 1966. Russian is a case-inflected language, and so conveys a good deal of structural information through inflections. Indeed, some of the information conveyed by word order in English is conveyed by inflexions in Russian. In terms of informational importance, Russian children eliminate what American children retain, though both eliminate inflexions. Clearly it is not
that the dominant Russian word order becomes established at about the twenty-third month, that is at about the time of the onset of patterned as opposed to telegraphic speech. The word order in terms of subject, verb and object of the young Russian child's telegraphic speech is the same as that of a young child whose primary language is not an inflected language. This reveals clearly that what the child says is generated by him and is not merely a shortened imitation of an adult utterance - shortened of necessity because of a brief memory span.

The second point of difficulty arising is a conceptual difficulty. The least informative words of English tend not to appear in child speech; but the lack of informativeness is unlikely to be the explanation of this, for, as McNeill points out, "the only way a child could know whether a word is informative without knowing its syntactic role is by keeping records of the speech he has heard from his parents. Equipped with such records he could discover the frequency with which words are used, and so estimate which ones are informative. But this is an impossibly vast undertaking for a two year old."

To suggest that telegraphic speech is a compensation for a short memory span is to approach the problem from the wrong end. The data of performance again gives a pointer as to what is happening in the black box, for it provides evidence of structures that have been generated and not imitated. A child's short memory span does not play a relevant role in that sense. However in another sense it does play a relevant role - the length of the utterances increases as a child's memory span grows longer; but
During investigations in 1964 into the patterned speech of two children referred to as Adam and Eve, Bellugi showed how the order of the acquisition of certain inflections in English was the same although the time taken to acquire them differed; further, and of more importance, that this order had only a weak correlation with the frequency with which the same inflections appeared in the mothers' speech.

<table>
<thead>
<tr>
<th>inflections acquired</th>
<th>Ages in months</th>
<th>combined rank order in mother's speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>present progressive (-ing)</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>Plural on nouns (-s)</td>
<td>33</td>
<td>1</td>
</tr>
<tr>
<td>Past on regular verbs (-ed)</td>
<td>39</td>
<td>4</td>
</tr>
<tr>
<td>possessive on nouns (-s)</td>
<td>39½</td>
<td>5</td>
</tr>
<tr>
<td>Third person on verbs (-s)</td>
<td>41</td>
<td>3</td>
</tr>
</tbody>
</table>

McNeill made an interesting observation on a point made by Jakobson in 1969 when he had examined this and other investigations which confirmed the order of acquisition. Jakobson observed that plural marking of nouns precedes possessive marking of nouns, which precedes the third-person marking of verbs; that is, a morphological effect within a word precedes a grammatical relation between two words with a constituent, which precedes a relation between two constituents. He concluded from this correlation that morphology precedes syntax. "However," wrote McNeill, "the children employed fixed word order as an expression of grammatical relations before they marked even plurality on nouns."
of acquisition of Russian linguistic features. At twenty-two months, plurals and diminutive markings of nouns and the imperatives of verbs appeared; then came the case, tense, and person markings on verbs; then the conditional markings of verbs; then the noun markings for various abstract categories of quality and action, followed by the gender markings on nouns and adjectives. Similar uniformity in the acquisition of Japanese was noted by McNeill in his study of Izanami and her learning stages of Japanese.

From the data provided by these detailed observations some indications of how the young child learns his mother tongue became apparent, but it is not on the level of the surface structure which is particular to individual languages and allows for considerable variations. The surface structure is only the outward manifestation of the deep structure and it is here that the patterns become clearer across the language boundaries for "whereas the outer form of languages may vary with relatively great freedom, the underlying type remains constant." Lenneberg continued on the theme of the unifying simplicity of universal aspects of language acquisition by writing that "because latent structure is replicated in every child and because all language must have an inner form of identical type (though an infinity of variations is possible), every child may learn any language with equal ease." How then does the young American, the young Russian, the young Xhosa learn his language? The answer to such a question will throw light on both how children learn and also on what they learn.
In Edinburgh in 1966, he asserted, as already mentioned, that
"The acquisition of language can be regarded as the guided choice of a grammar, made on the basis of a child's innate capacity, a choice consistent with the evidence contained in the corpus of speech provided by the mature speakers to which a child is exposed." There are some considerable problems to be overcome in understanding such a process. What is the innate capacity of a child and how does he choose a grammar from this corpus of speech to which he is exposed and which itself consists, very probably, of a large percentage of incomplete sentences of utterances which appear ungrammatical to other adults or merely semigrammatical? Chomsky's well-known phrase "colourless green ideas sleep peacefully," if not understood, is at least understood to be grammatical.

Precisely what constitutes this innate capacity is not known, but that such a capacity should exist in a child would seem to be beyond much doubt; children show a predisposition towards language learning that can be seen in the ordered way in which children all over the world set about their task. There is an indication that children's earliest speech contains abstract linguistic features. When, in 1964, Brown and Bellugi first recorded their subject Adam, he seemed to have three grammatical classes - verbs, nouns and pivots. This latter expression described part of the grammatical relations first used by children in telegraphic speech and was proposed in 1963 by Braine, and later referred to as an "operator" by Miller and Ervin. He examined children's utterances of two words and found them to fit a system of pivot and open class words. The open class is quick to take in new vocabulary and the pivot class is slow to
do so. Four combinations are possible:

\[
\begin{align*}
P + O \\
O + P \\
O + O \\
O
\end{align*}
\]

But \(P\) or \(P + P\) should not be possible by definition since this class can only be used in conjunction with open class words. These pivot words occupy fixed utterance positions; that is, a given pivot word always occurs in either first or second position. One first position pivot for example is "allgone," as in utterances such as

```
allgone shoe
allgone bandage
allgone outside
```

A common second-position pivot is "on", as in utterances such as

```
shoe on
bandage on
fix on
take on
```

Words like "allgone" and "on" are pivotal, whilst those like "bandage" or "shoe" fall into the residual class of open words, freely occurring in combination with both first and second position pivots. The most compelling argument on behalf of the grammatical reality of the pivot-open distinction is that pivot words do in fact very rarely occur alone or in combination with each other. Such a development must then result from a restriction on the use of words. As was mentioned earlier in this
study Braine recorded the number of different combinations in successive months: 14, 24, 54, 89, 350, 1,400, 2,500; these could not be memorized combinations and must have been generated by some underlying principle.

It is important to note too that many of the child's utterances, which are of course consistent with his own system, do not directly correspond to adult utterances and do not even look like reduced imitations of utterances he has heard. Braine, in "The Ontogeny of English phrase structure: the first phase" gave examples of idiocyncratic utterances of this stage:

- allgone sticky (after washing hands)
- allgone outside (said when the door was shut, apparently meaning "the outside is all gone")
- more page (meaning "Don't stop reading")
- more car (meaning "drive around more")
- more high (meaning "there's more up there")
- other fix (meaning "fix the other one")

This is clear evidence that even at this stage, early though it is, children can produce and understand an endless variety of sentences, most of which they have never heard before.

Before continuing with aspects of Brown and Bellugi's investigations into the speech of Adam, it is important also to make mention of recent work which has raised a number of reservations about the adequacy of the pivot-open constructions. Bloom in "Language Development: form and function in emerging grammars" (1970), Bowerman in "Learning to talk" (1970), with special reference to Finnish, Ervin-Tripp and Schlesinger in "The Ontogenesis of Grammar" (1971), and others, have noted that the pivot constructions were inadequate in that they showed
viu.y
lenaencies ana were not absolute as according to the
classic definition of pivots as fixed in position, never
occurring in isolation and never occurring in combinations with
other pivots. Miller and Ervin's investigations in 1964 showed
that pivots or operators only tended to occupy first or second
position. Bowerman found pivot-like words, which had been
isolated from the child speech corpus because of their high
frequency of occurrence and their pivot-like meaning, freely-
occurring in both positions in the two word utterances of a
Finnish child. It is not that the pivot-open construction is a
wrong construction but that the general rule $S \rightarrow P + O$ is
too simple. Slobin in "The Ontogenesis of Grammar" wrote:
"Thus it appears that not all children develop a grammar of two-
word utterances with fixed-position pivots and initially
unsubdivided pivot and open classes. Perhaps the most that
can be said is that a small class of frequently occurring
operators or functions is present at the two-word stage, and that
these operators combine with content morphemes in restricted
and selective ways to signal particular semantic relations."

Such a consideration of semantic relations raises an
entirely new and significant point, dealt with by Schlesinger
in "Production of Utterances and Language Acquisition;"
notably that the analysis of utterances as pivot-open and open-open
is a surface description of positional occurrences of words. 44.
When the child's intent to communicate is considered, it is
clear that the underlying structures are far more complicated than
the surface description reveals. Bloom, in her "Language
Development" (1970), noted that noun-noun utterances in child
speech can express a number of different relations, for example:

"boot umbrella"  conjunction
"party hat" attribution
"daddy hat" possession
"sweater-chair" subject-locative
"mummy-book" subject-object
"mummy-sock" (1. possession
(2. subject-object

To describe these simply as P - O sentences would fail to reveal the full linguistic competence of the child. However the basic claim that early speech is grammatically structured, takes on added force in the light of this more recent work, which presents both deep and surface levels of analysis even in the case of two-word utterances.

Brown and Bellugi's subject Adam had apparently three grammatical classes when first recorded. There are nine possible sentence types three words long. Of the nine sentence types, four are admissible combinations and of the twenty-seven sentence types eight are admissible combinations. In eight hours recording, involving four hundred utterances, the researchers found that every admissible combination was present and that all four hundred utterances were admissible. There were no others.

The presence of abstract linguistic features in child speech was further confirmed by McNeill's study with Izanami and her acquisition of Japanese, in particular with the acquisition of the post positional -wa and -ga. Izanami sharply distinguished -wa
from -ga, despite their distributional similarities in parental speech, by selecting the descriptive use of -ga as the principal concept to be encoded. It was clear from this fact alone that she was not working solely from the surface clues available to her, since on this basis -wa and -ga are virtually indistinguishable.

The point was also indicated by Slobin, in connection with the problem, already mentioned, of word-order in Russian. Unlike adult Russian, where inflections carry information about the grammatical relations in sentences and where word order is therefore highly flexible, the earliest sentences of Russian children lack inflections and are composed in rigid order. Indeed rigid word order is precisely what would be expected on the hypothesis that children include abstract features in their early speech, but must add to this inborn structure the particular transformations employed in their native language.

In the discussion based on McNeill's Edinburgh paper already referred to, Colin Fraser summed up three stages that have been taken in evaluating the presence and nature of this innate language capacity of children; firstly, that investigations of the type described above suggest that children are born with a biologically-based, innate capacity for language acquisition; secondly, that the best guess as to the nature of the innate capacity is that it takes the form of linguistic universals; thirdly, that the best guess as to the nature of the linguistic universals is that they consist of what are currently the basic notions in a Chomskian transformational grammar. David McNeill, writing in "The Capacity for the Ontogenesis of Grammar", pointed out the following in connection with linguistic abstraction and
the innate language ability of children. "In acquiring the
transformations that define language, children learn to relate deep
and surface structures; but the deep structures of sentences are
never displayed in the form of examples, stimuli, responses, or
anything else. They are abstract and, for one who does not
already know the language, inaccessible. It is this simple
linguistic fact, which every child faces and overcomes, that
eliminates S - R theory as a serious explanation of language
acquisition." 53.

If one then conceives of language as being a biological
phenomenon, the product of evolutionary specialization, there
are two fundamental points; the first, language itself, and
the second, the biological support for language, what Fraser called
"the biologically-based, innate capacity for language acquisition."
In 1957, Chomsky proposed the abstract Language Acquisition
Device (LAD) as a working hypothesis about man's capacity for
language and how this capacity interacts with linguistic
experience. Seen in diagrammatic form, it performs the task of
the black box referred to earlier in this study.

Primary Linguistic Data $\rightarrow$ \underline{LAD} $\rightarrow$ Grammatical Competence.

In "The Capacity for the Ontogenesis of Grammar", David McNeill
wrote the following about the composition of LAD: "One general
consideration concerning LAD's internal structure is that it
must be so arranged as to acquire any language. LAD's structure
should not bias it in the direction of some languages and away
from others. Whatever comprises the internal structure of LAD
must be universally applicable - LAD may contain information bearing
on the general form of language, but it must contain no information bearing on the form of any particular language to the exclusion of
other particular languages." The basic structure of LAD
concerns then linguistic universals, a number of which have to
The same basic syntactic categories - sentences, noun phrases, predicate phrases; every language has the same basic grammatical relations among these categories - subject and predicate, verb and object, modifier and head. Every language maintains in addition a distinction between deep and surface structure; that is, every language is transformational. Greenberg made a study in 1963 of some thirty languages and found these grammatical relations to hold in every case. The transformations themselves are idiosyncratic but not the types of relation between deep and surface structure, and the number of these latter, in contrast to the large number of the former, is restricted. This perhaps is the basis of the speed of acquisition by children. Any particular transformation may consist of a permutation, an addition, a deletion, or a combination of these. McNeill wrote that "Children acquire a language by discovering the relations that hold between the surface structure of sentences and the universal aspects of the deep structure, the latter being a manifestation of children's own capacities."

But this period of acquiring transformations comes only at a comparatively late stage. It is at a moment when the child's language is becoming increasingly close to the adult language of his speech community; that is at a moment when certain gross linguistic features, namely linguistic universals, have found their application in a particular language. The application of a transformational rule is idiosyncratic and represents a step in the general process of refining gross linguistic features to the
particular features of a particular language. Before examining the role of transformations, it is important to look closely at what seems to be happening when the abstract, universal linguistic elements, which form part of the child's innate linguistic competence, find their direct manifestation in children's speech. As McNeill wrote in "The Capacity for the Ontogenesis of Grammar": "Early sentences should be the universal parts of the deep structure of sentences, but pronounced directly."

Chomsky proposed a hierarchy of categories and this seems to be an essential part of our linguistic competence. It may be that the early pivot-open distribution is drawn near the top of Chomsky's hierarchy. McNeill expressed this as follows: "Two words—for example, one classified as a noun and the other classified as a determiner—inevitably comprise a particular constituent—in this case a NP if they interact meaningfully. Conversely, if two words are understood by a child as standing in a particular grammatical relation in adult speech—for example one word modifying the other—one word is inevitably classified as a N and the other as a Det. Each of the basic grammatical relations thus imposes a rigid constraint on the classification of words whenever a child expresses or comprehends meaning. A hierarchical arrangement of sentences automatically results." There is evidence that the basic grammatical relations are honoured in children's earliest speech; Brown and Bellugi in "Three processes in the child's acquisition of syntax" (1964) revealed this clearly and Slobin in "The Acquisition of Russian as a native language" (1966) and McNeill in "On Theories of Language Acquisition" (1968) showed
that this was also valid for Russian and Japanese. Such patterns have led Bruner, Olver and Greenfield, amongst others to pursue the idea in "Studies in cognitive growth" that such similarities across language frontiers exist precisely because the basic grammatical relations reflect innate linguistic abilities which are common to all members of the species.

The question arises as to how the categories related by the basic grammatical relations are themselves elaborated. McNeill suggests two hypotheses, differentiation and feature-assignment ("The Capacity for the Ontogenesis of Grammar"). Differentiation reflects the existence of the hierarchy of grammatical categories - not to be confused with the hierarchy of basic grammatical relations already referred to -, where the more superordinate layers are universal and where the more subordinate layers are the idiosyncratic refinement of the universal categories, for each language. Differentiation is then the process of classifying words into ever more subordinate divisions of the hierarchy.

Brown and Bellugi gave a description of the differentiation of the pivot class in 1964

<table>
<thead>
<tr>
<th>Age</th>
<th>Composition of utterance</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 24 months</td>
<td>$(P_1) + N$</td>
</tr>
<tr>
<td>2 $\frac{1}{2}$ months later Articles Demonstratives</td>
<td>$(P_2)_{(Dem)}+(Art) + P_2 + N$</td>
</tr>
<tr>
<td></td>
<td>$\text{Adj. Poss. } P_3_{(Art)}+(Adj)+N$</td>
</tr>
<tr>
<td>2 $\frac{1}{2}$ months later a, the this, that</td>
<td>big { my other</td>
</tr>
<tr>
<td></td>
<td>red { mine one</td>
</tr>
<tr>
<td></td>
<td>green { your more</td>
</tr>
<tr>
<td></td>
<td>etc { all</td>
</tr>
</tbody>
</table>
Thus in five months, five grammatical classes have emerged from one primeval pivot class. But the weakness of the hypothesis is that it presupposes that a child's initial grammatical categories are generically appropriate. This is not always so. "The P Class, for example, must contain every current example of the adult grammatical classes later to be formed out of it. However not all children arrange their vocabulary in this way. According to Slobin, one of Miller and Ervin's subjects (1964) located adjectives in both P and 0 classes, which makes differentiation of the adult class of adjectives impossible." (McNeill's "The Capacity for the Ontogenesis of Grammar"). McNeill found the same with one of his Japanese subjects in his "Some Universals of Language Acquisition" (1965).

McNeill then proposed the more general hypothesis of feature-assignment: "Whenever a child places a semantic interpretation on a sentence heard in parental speech, he may in addition assign syntactic features to the words of the sentence." McNeill showed, as a possible explanation of how such a feature-assignment would take place, the following tree-diagram.

```
  S
   /\   /\                        /\   /\  \\
  NP  Pred P                     Det  N  NP
     |    |                        |  |    |
the  the ball  hit  the window
```

Each word in this adult sentence could potentially be classified according to the position occupied in the structure. McNeill points out that feature-assignment is dependent on the correct comprehension of the adult utterance by the child. If however the
The man hit the ball then it would be expected that a child should utter sentences backwards for a time. Something similar to this seems to have happened in the speech of a child observed by Braine in 1963, where "allgone" becomes a first-position pivot in his two-word utterances.

Both these hypotheses are possible explanations of how Chomsky's hierarchy of categories may become overt in the speech of children, that hierarchy which acts as a guide in the first stages of linguistic development. The next stage in the process of this idiosyncratic refinement of the universal categories for each language is the growth of transformations, something which Lenneberg suggests is used whenever similarities are made—and this not necessarily only in language fields: "The perception of similarities must be a deeply ingrained process; it is the very nature of perceptual and even more generally, behavioural, organization." As a process it may be widespread, but the manner in which that process is learned remains obscure. McNeill wrote in "Acquisition of Language" (1970): "How are transformations
Children seem to be unable to avoid forming relations between underlying and surface structures; that is, unable to avoid making transformations, which basically are the idiosyncratic uses of universal transformational types, such as permutation, addition, deletion, or any combination of these.

Although no explanation of the way transformations are learned has been as yet developed, several observations of their introduction into child speech have been made. McNeill in "Acquisition of Grammar" (1970) analysed the grammar of a twenty-eight month old child, whose utterances were a little less than an average of two morphemes long. At this stage the child's grammar consisted of three phrase-structure rules.

1) \( S \rightarrow (NP \parallel VP) \) (at least one element)
2) \( NP \rightarrow \{(P) N\} \)  
   \{N N\}
3) \( VP \rightarrow (V) NP \)

By thirty-six months the child's utterances averaged only three morphemes long, but the grammar was greatly more complex, involving fourteen phrase-structure rules and twenty-four transformational rules, allowing the child to formulate the utterance "Where those dogs goed?" McNeill gave the following tree-diagram of this utterance to show the deep structure:
Aleksandr N. Gvozdev made careful observations of his son Zhenya until he reached the age of nine. The first stages of Pivot-Open classes were very similar to those observed by Braine, Brown, Fraser, Miller and Ervin. Two word utterances appeared at about twenty months - that is at the same period as with the children in English and Japanese language environments. It is of interest to note that new pivots were often playfully practiced, with the child uttering a long series of pivot sentences, holding the pivot constant and substituting a variety of words to form the open class. It is interesting, for Ruth Weir in her book "Language in the Crib" (1962) noted precisely the same thing. When the first three word utterance appeared, it was a simple negation, the first of the transformations, and it involved the placing of a negative element at the beginning of a sentence. This is the same initial negative form found by Bellugi-Klima in 1964 - examined later in this chapter; that such a form should be adopted by a child learning Russian as its native language is of particular interest for the adult model in Russian often involves a double negative. The adult
fact "nyet" was found to be used by the child in all cases even when the adult form would be "ni"; the adult utterance "ni karmi" becomes "nyet kamli" for the child. All of this information is discussed by Dan Slobin in "The Acquisition of Russian as a Native Language" (1966). Slobin went on to comment on the problem, already mentioned elsewhere in this study, of Russian word-order: "One might have predicted that Russian children, being exposed to a great variety of word orders, would first learn the morphological markers for such classes as subject, object and verb and combine them in any order ... Child grammar begins with unmarked forms - generally the noun in what corresponds to the nominative singular, the verb in its adult imperative or infinitive form ... word order is as inflexible for little Russian children as it is for Americans." Zhenya then showed in the one month (twenty-third to twenty-fourth months) the acquisition of the following inflections:

1. previously unmarked nouns were marked for number, for Nominative, Accusative and Genitive cases, and for diminutive aspect.

2. previously unmarked verbs were marked for the Imperative, infinitive, past tense and present tense.

Slobin commented that "Apparently once the principles of inflection and derivation are acquired - or at any rate the principle of suffixing - the principle is immediately applied over a wide range of types."

Some observations have then been made here concerning the growth of transformations without any explanations proposed.
It is interesting to note that the first transformations were observed at the beginning of the second year. But it is probably on the data of the observations that any explanations can be built, as with the concept of LAD, and such observations are not numerous. Slobin wrote in "The Ontogenesis of Grammar" (1971) "The growth of grammatical transformations has, as yet, been little investigated." One of the most outstanding contributions has been made by Bellugi - Klima's analyses of the negative and interrogative. She divided the acquisition process into four stages, the earliest of which is simply affixation of a negative element such as "no" or "not" to a child utterance, something observed also by Gvozdev for Russian and by McNeill D and McNeill N.B. for many other languages in their paper "What does a child mean when he says "no"?" (1968). The children whose speech Bellugi was investigating were named Adam and Eve; Adam was twenty-nine months old and Eve twenty-one months old at this first stage, and the periods between stages ranged from three to six months. Examples of this first stage are taken from Bellugi's "The emergence of inflections and negative systems in the speech of two children." (1964).

no .......... wipe finger
more ......... no
not ......... fit
no wash
no drop mitten
no sit there
wear mitten no
no David fun play?
the negated auxiliaries "can't" and "don't", followed by a second negative - a form not found in adult speech - and also negative imperatives.

I can't see you
I don't want it
Why not me sleeping?
Why not you looking right place?
Why not me can't dance?
Don't leave me
Touch the snow no

By the third stage, the early negation form with "no" and "not" (still present in the second stage) has disappeared. Sentences now correspond to those of the adult pattern much more closely. Double negatives have dropped out, indefinite determiners and pronouns with negation appear, and the form "why not" has yielded to "why + negative auxiliary verb."

This is not ice cream
I not crying
Why the kitty can't stand up?
Why this doesn't work?
I didn't see something
You don't want some supper

In stage four, the double negatives reappear, but now in connection with negative indefinite pronouns. The negatives are again closer to the pattern of adult usage but still not
It's won't hurt
Cars doesn't get on tracks
No, I not big boy
I didn't put no paint on
I can't do nothing with no string

It is of passing interest to note that the last two examples, the first of a double negative, the second of a triple negative, would in some language environments pass as the complete adult form. Such investigations, together with the work carried out by Bloom in 1970 in "Language Development; form and function in emerging grammars", count amongst the few providing the necessary data on the development of transformations for the possible working hypotheses as to how these transformations are learned. At present, that question remains an open mystery as noted by both McNeill and Slobin. Paula Menyuk in "The Acquisition and Development of Language" (1971) made one point concerning a more advanced stage of transformation learning which is worthy of note here. She observed that early syntactic development takes the direction of establishing the basic relationships in the language, subject and predicate, modifier and noun in the NP, verb and object in the VP, and of developing rules for generating declarative, question, negative and imperative sentences; that is, the early stages appear to develop within the framework of a stable word-order, a point emphasized by Slobin in his observations on the acquisition of Russian word-order. Questions tend to be formed by affixation of question words or by a change of intonation pattern, intonation pattern development being one of the early
stages of phonological development. Menyuk wrote: "It is true that questions emerge at a somewhat later stage than negatives and imperatives, and the reason for this may be that permutation operations are required for questions. Operations which disturb the order of SV or SVO appear to be later acquisitions than those which do not." Menyuk observed later that "conjoining sentences, then, is the operation employed by children before embedding", predominantly because this involves no restrictions on the conjoined sentences. From the age three years until the age seven years "conjunction and embedding operations change from simply adding one sentence to another to increasing observation of restrictions imposed by operations."

In the above analysis of some of the problems surrounding how children come to acquire their primary language, concentration has been made on the acquisition of the grammar of that language because that is the fundamental point involved - and echo of McNeill's statement that "the acquisition of language can be regarded as the guided choice of a grammar." Little attention has been paid to the acquisition of phonology, about which Menyuk wrote in 1971 that very little work had been carried out on this aspect, particularly with neonates; little attention has been paid to the acquisition and development of semantics, on which much more research has been completed, partly because, in the early stages, "the first steps in the development of meaning, and hence in learning to decode the environment, are inseparable from the first steps in the development of perception" (Osgood and
Acquisition of second languages

When discussing the acquisition of primary language, two essential points stood out clearly from the start. The first was that whichever language was being considered, the problems entailed in its acquisition had important basic similarities; the children were of approximately the same age, the problems facing them were essentially the same and their method of acquisition was the same. The second was that there was no language present at the outset to provide additional problems of language interference. In discussing the acquisition of second languages, there are no such similarities and no such invariables. The considerable number of variables have effectively prevented any research-work on how children acquire
in an earlier chapter, but they only concerned the learning of a second language in a school situation. To survey the vast list of publications on second language learning and teaching would perhaps lead to the impression that a great deal is known. But rather it is the case that a great deal has been written, many theories have been advanced, many methods have been elaborated, many enthusiasms have burned brightly and died and an astonishing amount of time and energy has been spent; but we know very little indeed about how people learn second languages. It is not even at all clear why languages are taught so extensively.

In 1969, at the second International Congress of Applied Linguistics held at Cambridge, Alan Davies said, in his paper "Aptitude for and proficiency in French in the first year of the U.K. secondary school," that "as far as I can see we seem to be committed in Britain to an educational policy of at least one modern language (usually French) for all, I regard this as a socio-political question and not a psychological or linguistic one."

Research projects have been carried out, notably at the University of York and in America, to determine certain aspects of secondary language acquisition; in these two cases, they were concerned with deciding the role played by language-laboratories in the teaching of languages to secondary school children. But, as far as the acquisition of that secondary language was concerned, they contributed little - nor were they meant to, for they were designed on the lines of having two groups of students, one being taught with the aid of a language-laboratory and the other without such an aid; both groups, however, as was necessary for the
That is, very little could be concluded concerning how secondary languages are learned, for assumptions had already been made about what language corpus to present and what the outcome was to be; the only question to be resolved was whether the language-laboratory was effective and if so to what extent.

Before any progress can be made, the field of secondary language learning needs to be given more definition. Whereas a very high percentage of people "automatically" achieve a high degree of flexibility and complexity in their primary language, a very low percentage achieve that same flexibility and complexity in a second language. Based on his own experience and without defining too closely the term "bilingual", Julien Green wrote in 1941 that "I am more inclined to believe that it is almost an impossibility to be absolutely bilingual." Nevertheless there are many people who achieve considerable flexibility and complexity in two or more languages, others whose second language apparently replaces the first. Despite important work by Einar Haugen, Lambert, Havelka and Crosby, the latter three wrote in 1958 in "The influence of language - acquisition contexts on bilingualism" that "as yet, no adequate psychological theory has been offered to account for bilingualism." Without the availability of evidence high lighted by research into bilingualism, it can no more than be noted that, although few people gain any flexibility or complexity in a second language, there exist nonetheless those few.

It is the presence of those few that excite interest. In a discussion, already referred to, on Lenneberg's "Speech Development;
"It is a common belief that a very sudden change in facility in second-language learning, especially phonetic, occurs around puberty, but anybody who studies these cases is puzzled by the exceptions ... thus children may fail to learn, while adults may learn a second language perfectly and lose the first. For these reasons it appears that an organic explanation for the difficulties of second-language learning by adolescents and adults may not be as adequate as it first appears" - that is we do not have appropriate data. De Hirsch, in the same discussion, pointed out, concerning children in Belgium and Holland, that "it seems that children of comparable intelligence differ in their ability to cope with two or three languages at the same time."

In the absence of any psychological explanation covering the acquisition of secondary languages, definition, but no explanation, can perhaps be brought to the problem by considering it as a series of related problems. The work of Haugen, Haveika, Lambert and Crosby has, as mentioned in an earlier chapter, sought to establish different types of bilingualism, the coexistent or compound on the one hand and the compound or subordinate on the other; types which are basically dependent on the age at which the secondary language is learned. This leads to the consideration of an aspect of secondary language learning which is near the heart of the whole matter, notably the manner in which the corpus of the target language is presented to the potential learner.

In the case of infant bilingualism, that is the simultaneous learning of two languages and the background which is probably most usually assumed to be that of what is generally termed "a
mother tongue and target language as seen from the child's viewpoint as a learner, beyond the important, literal understanding of mother-tongue. Both languages are presented to the learner without being particularly structured, and the process of acquiring the two must be similar to, though more complicated than, the acquisition of primary language for monolinguals.

In the case of all other forms of bilingualism, where a first language has already been established, the manner of presentation of target language plays an important role, one that appears to gain in importance when the learner is beyond a certain age, although this latter proposition is not so clear. In "Biological Foundations of Language" (1967), Lenneberg maintained that "the incidence of language-learning blocks rapidly increases after puberty. Also automatic acquisition from mere exposure to a given language seems to disappear after this age, and foreign languages have to be taught and learned through a conscious and laboured effort." Lenneberg went on to point out that "this does not trouble our basic hypothesis on age limitations because we may assume that cerebral organization for language learning as such has taken place during childhood, and since natural languages tend to resemble one another in many fundamental aspects, the matrix for language skills is present."

This last suggestion is of considerable interest because Lenneberg proposes that provided a language is established by puberty, as is rarely not the case, a person has the language skills available to him to learn another language. This would
Seem to be true in view of the fact that such people do acquire other languages; it is also interesting in view of the fact that very many more do not, although exposed to the teaching of foreign languages.

However Lenneberg's contention needs challenging, first of all because he writes of a foreign language being learned, secondly because it may be wondered how much truth there is in the general comment. The first of these two points was discussed early in this study; it surrounds a problem of definition. When is a language learned if at all? When considering the acquisition of a second language, which level of acquisition has a student to fail to reach for the notion to be substantiated that mere exposure to a foreign language is insufficient? The second point touches on what might be a more positively useful thought, namely that mere exposure of a student to a language with a high degree of relatedness to his own might well have more positive effects than if he is exposed to a language from a completely different language group.

Given that there are none of the invariables associated with secondary language learning that exist with primary language learning, it will be necessary to try and peg some of the numerous variables. Firstly, this study will confine itself to examining acquisition of a second language by school-age children by means of teaching. Within that limitation several more limitations will be required. One of these concerns the way in which the timetabling of language teaching works out in the majority of English schools. Four or five lessons a week in the secondary schools for pupils below sixth form level is the norm.
But that is the norm for, in the majority of cases, the
teaching of French; other languages rarely have more, usually have
less, and that despite the fact that they are not normally begun
at such an early age as French. Those four or five lessons may
vary from thirty minutes to three quarters of an hour each and
may very often be grouped in double-lessons. It would probably be
ture to say that the timetabling of language lessons is largely
based on factors having little to do with any theories of
secondary language acquisition. W.D. Halls wrote in "Foreign
Languages and Education in Western Europe" (1970) that "whereas
with small children the recipe of little and often would seem
empirically to be the most efficient, the contrary may hold true
at a later stage." "Thus, he suggested, "it may well be that the
best procedure for teaching a foreign language to a bright child
who has already mastered one language other than his own is to
practise a policy of total immersion in the language by, say, a
course of three hundred hours spread over six months." Halls
mentioned, as an example of this, the German Epochenunterricht.
"Since what the Germans term Epochenunterricht is practised in
another subject, which bears some resemblance to language learning -
that of mathematics - it may well be that sustained bursts of
language learning for days or even months on end are likewise the
most rewarding." The table that Hall published, showing the total
possible number of period-hours per week in academic secondary
education in modern languages, makes interesting reading.
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If the time, mentioned above as allocated to English secondary schools, is taken into consideration, if those periods are taken, for convenience sake only, as being one hour long and if the teaching time available each year is taken as thirty-six weeks, then English pupils have, at a very generous estimate, nine hundred hours to reach a level where they can begin their A level
Durrenmatt, Camus, Zola or Racine, and this many achieve.

Jakobovits was mentioned earlier in this context, when he suggested that the natural rate of language acquisition can be greatly accelerated from approximately 3,000 hours for primary language learning to between 250 and 500 hours for the secondary language in the case of high-aptitude people.

Within this study, the variables of time-taken, how that time is distributed and how old the pupils are will be pegged arbitrarily at the twelve to sixteen age range, being taught five lessons a week spread through the week. The age-range needs to be examined further before continuing, for, since the massive pilot scheme of teaching French in the Primary Schools was launched in 1963, a large percentage of English school-children do not begin their secondary language learning in the first year of the Secondary School. Whether that be at 11+ or at 12+. However, except in particularly favoured areas, the gap between the Primary and the Secondary School is a very wide one, especially when considering the teaching of foreign languages.

The Secondary School, which receives pupils from several Primary Schools, is frequently unable to make any realistic, direct use of the language work carried out in those Primary Schools, partly because there is often a lack of knowledge about the teaching in the Primary Schools, partly because the class-units to be taught are not formed according to any language learning criteria so that, in the group of thirty or so children, the natural abilities and previous language experience will provide a wide range and partly because, even where groups can be formed based on knowledge
gained from the Primary Schools, there is not a clear enough pattern to emerge. I have had to consider, for example, the grouping of approximately ninety incoming students to a Secondary School, whose collective language background ranged over thirteen different courses, some of whom had had no previous experience, some of whom had had up to five years previous experience, and no more than three of whom had reached a particular point in any given course. The result basically is that, whether pupils come from Primary or Middle Schools, they have rarely started what is accepted as a Secondary School course; the Secondary School then starts, regardless, at what seems an appropriate place in that course, which may often be at the beginning. What precisely the value is of the Primary School French is exceptionally difficult to assess; in terms of language examination results it cannot be maintained that pupils who have started early do better - nor do they do any worse. But that would be a narrow assessment. The benefits are usually referred to in much more vague terms; a feeling for the language or language learning is inculcated, performance on the level of phonology is frequently referred to as being enhanced, appreciation of language, even of the mother tongue, is often mentioned, in addition to general allusions to knowledge of and therefore tolerance towards people of other nations. There can however be very little doubt that in favourable circumstances, children of Primary School age can show an impressive grasp of a secondary language. Halls indirectly made a similar point when he concluded that experiments during the fifties showed the desirability of language-learning from an early age.
One major topic to be discussed which itself will require limiting, notably the corpus of speech presented to the student. It is in this area that the links have been made between research into primary language acquisition and secondary language learning. Such links have not been made only in the twentieth century, as was made clear in an earlier chapter; rather it is recently that such links have been questioned, curiously enough as the result of more detailed investigations into primary language learning rather than into secondary acquisition. From the moment that the "black box" was required to give up its secrets, the very special nature of primary-language learning became increasingly apparent. For as long as its acquisition was considered to be by a process of conditioned reflexes, a similarity, on the theoretical level, could be maintained with second language learning. From this period arose a great many of the teaching methods now used and a great deal of the theoretical underpinning of courses. Henri Besse wrote in "Voix et Images du CREDIF" (No.6) "L'apprentissage d'une langue est comparable à l'acquisition d'un nouveau comportement. Le sens d'un mot n'est que la réponse que ce mot entraîne chez l'auditeur."

Of the four assumptions made about language learning that Wilga Rivers examined in her book "The Psychologist and the Foreign Language Teacher", one was that "foreign language learning is basically a mechanical process of habit formation." Further, the third of Carroll's four essential characteristics of modern language learning - "the need for overlearning through pattern drills" - is drawn from this behaviourist view of language
Apart from ignoring the fact that were this to be the true process of acquisition, no response would be available for a previously unheard stimulus, there is a further interesting implication. Pattern practice involves the repetition and assumed imprint of overt features of the language that is of surface structure. To acquire a language without making any reference to deep structure would place a completely impossible load on the memory, not to mention the problem of responding to the previously unheard stimuli. The way to the deep structure of a language is then here assumed to be via the surface structure. This is diametrically in the opposite direction to that now thought to be taken by young children learning their primary language. In his appendix to Lenneberg's "Biological Foundations in Language" Chomsky outlined, in "the Formal Nature of Language," the three basic ingredients of language, the phonetic, semantic and syntactic components, in the following schema

```
semantic interpretation

B (base system) \(\xrightarrow{S}\) surface structure \(\xrightarrow{T}\) P \(\xrightarrow{P}\) Phonetic representation.
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"The mapping \(S\) is carried out by the semantic component; \(T\) by the transformational component; \(P\) by the phonological component. Generation of deep structures by the base system \(B\) is determined by the categorical system and the lexicon."
If the example of the negative formations is considered, it will be remembered from Bellugi-Klima's analysis that there is a succession of short-lived devices for performing grammatical transformations such as negation. The utterance by Adam in the fourth stage of negation acquisition "I wasn't talking 'bout it" resulted from a series of developments. However for a student learning English, the intermediate steps in the negation system in English would not be presented; only the varieties of negation in the surface structure of adult utterances would be available for pattern practice. Whereas the child has assumed full adult competence through a comparatively simple device of differentiation, the student is faced with an array of examples from which a base principle has to be devised. The function of grammars should be to provide that base principle, to provide those good descriptions that Halliday, McIntosh and Strevens made a plea for in 1965 in "The Linguistic Sciences and Language Teaching". They tend to provide imperfect descriptions which have numerous and confusing exceptions.

The pattern practices of which Carroll was speaking, which formed the bulk of Stack's "Language-Laboratory Drills" and which were the basis of early language-laboratory work, used the comparatively few, comparatively simple types of transformation available to young children, that is of deletion, insertion, replacing. But they were not seen as that, since all semantic content was removed. It is simple and amusing to make a language-laboratory drill in a nonsense language using these devices and then
is not just a type of operation; it is also a link between surface and deep structure, and that involves the semantic component.

When considering this topic of the language presented to the student, not only is there a question of how it is presented but also of what is presented. Writing in 1966 in "Developments in Applied Psycholinguistics Research" Koplin noted that "Modern linguistics has made important contributions by recognizing that the student's native language has an important bearing on the approach that should be taken in the teaching of a second language and that this approach will vary depending on the linguistic relationship between the two languages." This raises a fundamental question. It is at present the vogue to avoid recourse to the mother tongue in foreign language instruction, on the grounds that interference is thereby minimized. At a more fundamental level still, that of the preparation of courses, there is a clear decision to be made; either a universal system, which can be used without reference to any particular primary language, or a comparative system is to be elaborated. Koplin appears to assume this latter alternative, but that is by no means a general assumption. The Bureau pour l'Enseignement de la Langue et de la Civilisation françaises à l'étranger (BELC) in Paris is elaborating both types of system. The system Mauger for example is universal. On the other hand most systems of foreign language instruction elaborated in the country of the mother tongue are comparative. This is generally the case in England. Even within that subdivision the question needs to be asked whether these systems are based on a rigorous appraisal of the points of
whether they are traditionally written translation methods in
more attractive guise. For instance, although most recently
formed courses are based on the teaching of the spoken language,
very few pay attention to the phonetic oppositions between target
and mother tongue beyond the assumption, in practice wrongly
taken, that children can imitate accurately. Imitation from
a tape in a non-specialist classroom with thirty children is
unlikely to be accurate, from the pronunciation of individual
phonemes to intonation patterns. Perhaps even more important
and more difficult to decide is which aspect of the target
language to present. Few contest that learning to speak
should be the first concern and that the language should be
presented orally - though the reasons for such a decision are
not really clear. Immediately anomalies arise. Which language
should the student speak, the written or the spoken and, if
the latter, of which social group? Examples of this
confusion are legion; one such is that the manuals continue to
teach that the French interrogative form is either with the inverted
form or with "est-ce que ..." but there is an attested diachronic
progression for all social levels of the form:

1) Où vas-tu?
2) Où est-ce que tu vas?
3) Tu vas où?
4) Où tu vas?

Nor is consideration of the social group out of place. The
pictorial support for the presentation of the target language
usually follows the procedure of introduction to a family.
This places the learner in a specified social area - usually a professional man's family, more often than not an architect, company director or well-to-do business man. In both universal and comparative methods this is perhaps acceptable in countries where the social system is not too dissimilar from that of the target language. But, as SEIC found out, it is absurdly confusing for use, say, in the Congo or Camerouns. A comparative method has to be elaborated there both on the linguistic and social level, bearing in mind that French is to be taught as the local language of administration. Wilga Rivers' fourth assumption becomes in this case simply irrelevant: "The meanings which the words of a language have for the native speaker can be learned only in a matrix of allusions to the culture of the people who speak that language."

The limitations proposed for this very broad field of secondary language learning are then the following: consideration is to be made of such learning by secondary school children, learning in the English school environment, from courses elaborated during the last decade. There is virtually no evidence available on how those children learn; there is plenty of evidence of input material, plenty of evidence of output material but as yet no rigorous examination of what might happen between the two. The input material, as we have seen, is very often based on what is thought to happen which itself is usually based on investigations into primary language learning; such thoughts are then further tempered by what is empirically possible and what has seemed to be effective. The output material is, or would be, available in vast measure to teachers and
The main problem is that the mere availability of input material and output material, without a detailed knowledge of how the one has gone towards provoking the other, is of little use. I propose to look at the way in which three courses, at present in wide use in British schools, have been effective or not in my own experience as a teacher in a secondary school. These three courses are:

- Cours illustré de Français by Mark Gilbert
- Frisch Begonnen by Stephen Kanocz
- Actualités Françaises by Nott and Trickey

Before looking in some detail at how these courses present the secondary language some general, prefatory remarks are required. The first is that it goes without saying that no method will of itself teach anybody anything. At least a minimal motivation is required on the part of the student (and this whole area of motivation might well be one of the crucial factors in secondary language acquisition) and, in the case of school courses, an ability to use the material is required of the teacher. Secondly there are some generally accepted patterns of secondary language presentation to be found in Western Europe, which are also found in these three courses.

W.D. Halls made some general comments to this effect in Chapter five of his book. He noted that "with the advent of audio-visual and audio-lingual courses, procedures and practices in the initial stages of language learning have become increasingly standardized." This basically follows the pattern of presentation - explanation - repetition and exploitation, with individual courses adding other elements.
but not dropping those four. For instance M. Lemaire in "L'Enseignement de la seconde langue(II)" in the Bulletin d'Information of April 1968, added, at the beginning of the sequence, the first step "situation", where the whole situation of the lesson is established entirely orally. He advocated also at the end of the sequence the stages of "fixation" and "integration"; in the first of these the pupil has to create for himself situations, using the original structures but with different models; in the second, a completely new situation is to be devised using not only the newly acquired structures but also previously learned elements. Finally the general attitude of language courses tends to be similar. "At the lower and intermediate stages of language learning, whether these all fall within secondary education or extend downwards into the primary school, it is the four-dimensional approach of the inculcation of aural, oral, reading and writing skills which underlies the modern approach to language teaching in Western Europe."

Of the three courses mentioned above, the first two cover that area of lower and intermediate stages of language learning. There are many similarities of approach to be found in these two courses. Both require the language material to be mastered orally before reading or writing take place; both use the support of pictures to convey meaning; both progress quite clearly on what might be called a grammatical basis - that is progress is measured by the teaching of increasingly complex structures; both make use of taped material and this is especially evident
are evident; both introduce to the learner a family, somewhat more realistic in the case of the German course than in the French course, where the family tends rather to be seen as a convenient peg on which to hang various language points; both emphasize the flexibility to be found in the presentation of the language which should allow easy conversion to everyday situations within the experience of the learner.

There are also some general differences. The picture support of the French course consists of simple, black and white stylised line drawings which may have the advantage of clarity but lose any atmosphere of "Frenchness"; the German course uses coloured, realistic drawings interspersed with photographs of places in Germany visited by the family in questions. Movement throughout Germany is assured, by having the family live near Cologne, their cousins in Hamburg and one cousin a student in Munich; the French course does not noticeably move outside the Boulogne area, apart from one summer holiday excursion to the Loire Valley. These general, apparently non-language points have an importance, directly related to the fourth assumption of Wilga Rivers: "The meaning which the words of a language have for the native speaker can be learned only in a matrix of allusions to the culture of the people who speak that language." If that be true, the German course should be moving more positively in the right direction.

From the point of view of the student, the language input follows very similar lines. In contrast to more traditional
At each new stage is severely restricted, particularly in the first two years of the courses. Each lesson follows the pattern of presentation, repetition, exploitation. In both courses the presentation of new language work involves brief commentaries on the pictures. These commentaries are in the form of affirmations imparting simple information. For example, in Lesson 16 of Cours Illustré the children of the Lavisse family are introduced with the following two commentaries accompanying a drawing first of Madeleine then of Robert.


In Frisch Begonnen, the children are introduced in the first lesson; the information imparted, although similar, differs therefore in its lack of complexity. Again the commentaries accompany drawings, this time coloured.

1. Ich bin Karl. Ich bin Karl Schafer. Ich heisse Karl. Ich heisse Karl Schafer.

2. Ich bin Ingrid. Ich bin Ingrid Schafer. Ich heisse
4. Meine Schwester heisst Ingrid.
5. Mein Bruder heisst Karl.

After the presentation of these commentaries, along with the pictures, the children are required to repeat, either individually or in groups, the same commentaries broken up into sections sufficiently short to be memorized clearly. Once the repetition has been effected clearly, the stage of exploitation is reached, where questions are asked about the pictures in such a way that the language of the original commentary provides the answer. If circumstances allow, further exploitation would involve the children asking the questions, the children providing commentaries without the prompting of a question, and finally questions being asked and answers being given, no longer on the pictures, but on similar topics in the life of the children. It is frequently claimed that, at this stage of liberalisation, there is a great danger of the children embarking upon an answer for which they have not adequate French or German and thus of them making language errors. It is generally strongly felt that from the outset errors should not be left without correction and that it is therefore a serious teaching error to create a situation where the correction will involve a level of language not yet attained by the student.

Certain points arise from these two examples which have more general applications. The student in the classroom is in a "captive" position and may be asked to respond to linguistic stimuli before his interest is in any way quickened. This is to some extent reflected in the presentation of the commentaries as
of provoking a feeling of irritation is very real and is why M. Lemaire advocated the initial stage of "situation" to establish the context of the new situation before it is presented. In addition the student is presented with clear, well-formed adult language, however simple it may be, and is required in turn to use a similar form, probably to the extent of being encouraged to use unnaturally full sentences in reply to questions which he knows are posed in order to elicit precisely those replies and not to gain information. Thus there arises easily the second danger that the language ceases to be a tool of communication and becomes instead a complicated form of class-room game. Further a clear pattern emerges of the way in which the foreign language is to be revealed to the student. The language early in the course is simple and the student is required to memorize it in connection with its pictorial context. As the course progresses so the language becomes increasingly complex; with the increasing complexity the student is invited to memorize less and less in the way he memorized at the outset. New items of vocabulary will remain tied to their pictorial context, but the heart of the language, its syntax, becomes increasingly evident through perceptible patterns. The student is invited more and more to seek below the surface structure presented to him and not simply to memorize whole commentaries. A degree of flexibility can thus be achieved and the pictorial support pales in significance. However the two dangers just mentioned remain very real.
It is interesting to see how this emergence of syntactic patterns takes place. In Cours Illustré progress is made in Book 1 - which might represent slightly more than a year's work for 11+ to 12+ children - from lesson 1 with the following language content:

a) Qu'est-ce que c'est?
   C'est un chat
b) Qu'est-ce que c'est?
   C'est un singe
c) Qu'est-ce que c'est?
   C'est un chien
d) Qu'est-ce que c'est?
   C'est un garçon
e) Qu'est-ce que c'est?
   C'est un arbre.

to lesson 52 with the following commentary:


By the end of that lesson 52 in the Cours Illustre the vocabulary area covered is basically that which would allow a child to describe, in a certain amount of detail, what he does on a school day from the moment of waking to the moment he goes to sleep. In Frisch Begonnen the vocabulary area is similar but
more widely spread, covering the arrival of an English friend to stay, a visit to Cologne, Karl's illness, a shopping expedition, Christmas, a visit from the relations in Hamburg and the children's birthday. In both cases the vocabulary areas provide for simple exploitation away from the drawing stimulus to the personal situations of the students.

As far as the syntax is concerned, there are some clear differences between the two courses which arise in part from the different nature of the two languages. In neither course is there any need for a traditional explanation of a new grammar point - the point at issue becomes apparent to the students by the pattern emerging from frequent examples of the same point. The problem of German word order might furnish a useful example. The issue is raised in the first dialogue already quoted. The students have been given German names and in the exploitation stage it allows for the beginnings of word order flexibility of the kind:

Ich heisse David. Auf Deutsch heisse ich Karl. Once the students are aware of the fact that patterns are going to emerge, they do perceive them with remarkable facility, and I have found it rare for children to make, for instance, simple word-order mistakes in German when involved in oral word; it is more frequent in written work, but is usually quickly spotted if the student is asked to read aloud the ill-formed sentence.

By the end of lesson 52 of Cours Illustré, the following grammatical items have been introduced, and their use more or less clearly demonstrated:

The articles - indefinite, definite and partitive.

Adjectives - their agreement and their comparative forms.
Possessive adjectives

many prepositions involving position.

Disjunctive pronouns and the object pronouns.

Conjunctions et, parce que and mais.

Interrogative forms où and pourquoi.

Verbs in the present tense, imperative and with negatives covering the traditional classes of -er, -ir and -re and some 18 irregular verbs; also the use of infinitives after pour, pouvoir, aimer and préférer.

By the end of section 12 of Frisch Begonnen these points have been raised:

The articles - indefinite and definite in the three genders and four cases (with the Genitive merely touched upon)

Adjectives - their agreements determined by der and ein (not the Genitive case.)

Possessive adjectives

many prepositions, showing clearly the groups requiring the Accusative, those requiring the Dative and those requiring either Accusative or Dative.

Pronouns

Conjunctions, and the attendant word-order problem, using wenn, dass, relative pronouns, und, denn,

Many interrogative forms including the use of the suffixes - hin und - her.

Verbs in the present tense, imperative, with negatives, the Perfect tense - all involving weak verbs, some 15
In addition the imperfect of sein and of the modal verbs, together with the use of and positioning of the infinitive with these latter.

None of this information is stated so baldly for the student nor does he have immediate access to it, for in both courses there is a grammar summary listed at the end of the book, but within the chapters no specific comment is made about the grammar points at issue. There can be no doubt that both courses are based on a grammar progression and that the acquisition of this grammar structure is considered to be the essence of the acquisition process. This unwittingly lays store to a problem that arises at Sixth form level when the major grammatical items such as the formation of the various tenses, of the relative pronouns and so on, have been studied; the built-in notion of equating progress to the study of new grammar forms causes the reasonable feeling that the lack of new grammar forms to be studied means that no progress is being made and many students begin to feel disheartened. This problem is closely related to the second of the two dangers mentioned earlier; when the communicatory nature of the language ceases to be its prime function early in the study of that language then other, comparatively peripheral language features become dominant. It is often interesting in this connection to note how very different is the assessment of a student's performance by a foreign national who is not an experienced teacher when compared to that of a teacher for whom the language is not his native tongue. The foreign national will invariably rate the performance basically on its
teacher, held also within the system which he himself has largely created, will concentrate more on structural mistakes.

At this point an extremely difficult problem arises, which is far from remaining an academic question only; notably, what it is that constitutes a language error. On a recent visit to a French school, I found the following example.

1. Have you got some bread?
2. Haven't you got some bread?

Sentence two was not admitted, neither by the teacher nor by the textbook, on the grounds that after the negative the word "some" should be replaced by "any". On the other hand "j'ai monté dans les collines" or "ich habe hineingegangen" are clearly errors, as is "Tomorrow at seven want I a bus to catch."

There are certain gross errors of tense formation, word order and the like over which there is no doubt, but at the more advanced stages of foreign language learning the problem of error is acute. It surrounds not the structural formation of individual grammatical items but more usually whether any particular item is fully appropriate in a given context - whether a tense is correct or not, whether a subjunctive should or should not be used. There can obviously be no absolute rule governing a solution to this problem; its solution at each occurrence will depend on the teacher's or examiner's competence, but by the same token it is misleading to maintain that the problem does not exist, that language use is clear-cut.

The grammatical categories of Cours Illustre and Frisch Begonnen in their early chapters have been enumerated and a brief outline given of the general procedure recommended for the
in both cases the commentaries are presented orally without reference to the text and that such reference is only made when the exploitation stage is well advanced. But it is important also to stress that reference is made to the text before the next commentary is begun. Secondly, I do not banish English from the class-room completely; the notion that its use increases the chances of language interference is not, I think, valid. Students are continuously making their own personal cross-references, particularly on new vocabulary items rather than on grammar structures. An example of a grammar-structure cross-reference, which arises entirely from the student's unprovoked confusing, is with the German future tense. While the point is still new, few will make errors once they have grasped it. But at a later stage the almost inevitable confusions with "Wollen" begin. "Ich will fahren" instead of "ich werde fahren." But it is significant that they rarely make the confusion in the plural forms. "Wir wollen fahren" is rarely produced for "Wir werden fahren". That language interference takes place there can be no doubt, but as to how this happens there is very little known. Such knowledge would probably come close to understanding the mechanism of second language learning. The point remains one of considerable interest; different moods of anger, joy, depression, feelings of tension or tiredness undoubtedly affect the degree of interference at any given moment. How is it that a lady of German origin, domiciled in this country for nearly forty years, who speaks what would be generally called impeccable English, can say at the high point of a story told about her daughter when she
German, the word order English.

Thirdly, I frequently draw the students' attention to grammar patterns I want them to perceive, either verbally - in English - or by use of, for instance, coloured chalks. The commentaries are not presented in a series without such highlighting. But it is important to make clear that such highlighting will only be made after a commentary has been worked on and the exploitation stage reached. No grammar structure is introduced independently of the text under scrutiny nor is it introduced in advance of the study of that relevant text, as often used to be the case.

The way the new grammar structures are developed can be seen in the following two examples, firstly from lesson 21 of Cours Illustré with the introduction of the partitive article, and secondly from section 11 of Frisch Begonnen, with the introduction of the Perfect tense.

In the Cours Illustré the text is a commentary on four line drawings, of a bottle of wine, or a coffee-pot, of a glass (apparently of milk) and of a tea-pot.

1. Voici une bouteille. Dans la bouteille il y a du vin.
2. Voici une cafetière. Dans la cafetière il y a du café.
4. Voici une théière. Dans la théière il y a du thé.

The words cafetière, verre, théière, vin, lait, café, and thé are all new to the student, as, of course, is the small item of the partitive article. It is to be noted that the feminine and plural forms of the article are not mentioned until lessons 29
the bottle of wine, sets a clear pattern for the three that follow. The students recognize clearly the first sentence "Voici une bouteille" from previous lessons. "Dans la bouteille", for the same reasons, is also clear to them. "Il y a du vin" becomes immediately clear in a general way because the drawing is obviously of a bottle of wine; but the growing point of the course surrounds the use of "du". The general understanding of this last section would not have been impaired had the teacher mistakenly said "il y a le vin" or "il y a un vin." It is only by highlighting that the student's attention is drawn to the item "du", which is new to him, and the understanding of that item is nearly always made complete by the student effecting his own cross-reference and translating "du" to himself as "some". The point of the use of the partitive article instead of either the definite or indefinite article is largely lost when no such contrast is made - the lexical item "vin" is new to the student and he is therefore in any case unaware of whether it is "le" or "la" vin. Once the pattern of that first sentence has been established and once the lexical items of cafetiere and lait have been established - a coffee-pot is not always recognized and there could be anything in the glass - the remaining three sentences present no further difficulties. Nevertheless the words café, lait and thé are all new, and, as was the case with vin, the student does not know whether they are masculine or feminine.

To establish this particular lesson I have, therefore, always found it not possible to keep simply to the text. The new lexical items could easily be clarified by bringing into the
English were to be required. But I do not believe that such a precaution prevents language interference, in the sense that the equivalent English word is not sought. I am sure the student makes the translation, but the important point is that both the French and the English words are clearly established in relation to the referent. The pattern is not:

\[
\text{(a coffee-pot) (the object; referent)}
\]

\[
\text{Cafetière} \quad \rightarrow \quad \text{coffee-pot}
\]

but rather is:

\[
\text{(a coffee-pot)}
\]

\[
\text{cafetière} \quad \rightarrow \quad \text{coffee-pot}
\]

At this early stage of language-learning, where nouns with simple, clear referents are used there is very little problem of preventing the French word from having a more or less complete dependence for its meaning on an English equivalent. Nevertheless this soon becomes a major problem of second language learning; at this early stage with Cours Illustré the problem very quickly is found, not with nouns, but with verbs (il fait du vent, il fait des grimaces, il porte un pardessus, il porte un panier) and with adverbs. It is in this context that language interference takes place, that is causes defective use of the secondary language, either on the level of active use or of comprehension. The interference, it would seem, is going to happen whatever precautions are taken, so rather than vainly try to avoid, or even perhaps to minimize, such interference, it might be reasonable to consider this as an integral part of the encoding/decoding process.
on establishing those clear points of opposition between primary and secondary language that Halliday and Strevens called for. This would of necessity involve the elaboration of comparative and not universal language teaching methods.

The final point in the completion of this lesson that I have found essential to add, is the inclusion of the use of the words vin, café, lait and thé with the definite article, firstly to confirm that they are all masculine words and secondly to substantiate the difference, on a semantic level between the definite and partitive articles. The items were brought in and introduced in the following way:

"Je prends le thé. Je mets le thé dans la théière."

After the four objects had been similarly filled, the text for the lesson, already quoted, was introduced. However the distinction between the two articles is still only finally clarified when the students themselves make that almost inevitable translation. In most other years I have briefly made the point in English, after the commentaries had been clarified, and I have not noticed any difference in performance.

Section 11 of Frisch Begonnen, where the perfect tense is introduced, has the following commentary, this time not directly accompanied by pictorial support, but referring closely to a sequence in a previous section for which there was pictorial support.

The only new item for the student in this section is the use of the Perfect tense. Once the time issue has been settled with the introduction of the first sentence, by, for example, devising a calendar and highlighting that the Thursday in question was Thursday of last week, the detailed comprehension of the passage provides no difficulty. As, in my own experience, it has been the case that the students have all been studying French and have already studied the French Perfect tense, the use of the auxiliary verb "haben" is quickly appreciated. This also raises another aspect of language interference that takes place frequently, particularly among Sixth form students, for those studying two or more secondary languages; notably, that interference is as frequently experienced between two secondary languages as between the primary and secondary language. In this particular case of the Perfect tense, it is often found that German reflexive verbs are given the auxiliary verb sein after the French model with ëtre.

The other two important issues raised in this introduction to the Perfect tense concern word order and the formation of the past participle, I have found very few problems with these two aspects. There are nine clear examples of the Perfect tense in
The formation of the past participle provides a simple pattern easily assimilated and easily highlighted by the use of coloured chalks. The word-order, similarly, is a clear pattern which again is easily assimilated, but which takes rather longer to be used regularly without error, perhaps partly due to a problem of memory-span. The sentence

Der Verkäufer hat die Platte für uns auf den Plattenspieler gelegt.

Will often pass through any of the following stages:

1. Der Verkäufer hat gelegt die Platte für uns auf den Plattenspieler.
2. Der Verkäufer hat die Platte gelegt für uns auf den Plattenspieler.
3. Der Verkäufer hat die Platte für uns auf den Plattenspieler.

These two lessons are examples of how, in these two courses, the language is presented. The development pattern is from simplicity to increasing complexity on the level of syntax; progress is indubitably founded on the notion of progress through the grammar of the language. On the level of phonetics, intonation patterns and pronunciation of individual words is left to the teacher, with, in the case of Frisch Begonnen, models provided by tape recordings made by German nationals. "As the story takes place in Rodenkirchen, a residential suburb of Cologne, Northern German is used consistently in the course, both as regards the choice of idioms and the pronunciation. However no concession is made to dialect or local speech." For the French
be loosely and optimistically described in the same way as that of
the French course "La France en Direct": "le français enseigné
est le français contemporain utilisé à Paris par des gens
cultivés, sans affectation ni familiarité." That a form of
foreign language pronunciation, not wholly that of a native
speaker, is taught is not only an obvious danger but something
that undoubtedly happens more often than not. Very few courses
used in England pay any detailed attention to the phonetic
oppositions between the mother and target language, unlike, for
instance, the case in France. Careful listening to a tape in
whatever conditions will not compensate for the lack of severe
critical faculties on an auditory level in the vast majority of
students. Obvious sounds like the French [Ly]and the French [R] are
noticed by English students; but other vowel sounds are heard
generally as the same. Most English students maintain a dark [l]
when speaking French, and, because nasal sounds are alien to
English, the different qualities of the French nasal sounds are
not distinguished. This leads to ambiguity on the semantic level
when tremper and tromper, lent and long, bon and la bonne even are
completely fused. Although it is considered important in
England to teach students to speak first before they learn to
write, there is very little work completed on the teaching of
phonetics; it is almost always left to imitation rather than to
explanation, and if this is a result of the thinking that young
children learn this way, suffice it to say that young French
children do at least have accurate, full-time models.

Such is the language input to a twelve year old student. The
to a point of lack of comprehensibility. The inducement for the student is to provide that near perfect copy; at this stage the language limitations for the student are clear and they are largely based on imitation of the input material. Communication in the second language can only be made concerning topics the same as or very closely related to those of the commentaries. Because full sentences are nearly always insisted upon and because errors are not left without correction, there is little occasion for observing the way in which the second language is acquired at the beginning beyond the fact that language patterns seem to be both more easily discernible and learnable than explanations. It is basically a process of memorizing, but that, in itself, is not a simple process; it does not seem necessarily to be tied to intelligence, but Alan Davies, in his paper "Aptitude for and proficiency in French in the First year of the U.K. secondary school" presented in Cambridge 1969, stated that language ability is clearly tied to intelligence. However I know from my own experience that intelligence does not necessarily mean an aptitude for language learning. In any case both observations may depend for their force on the existing methods of teaching languages.

If a close detailed study were to be made of how children learned second languages at schools, a study involving the detailed analysis of both input and output material so that speculations could be made about the functioning of a secondary language LAD, the results would say more perhaps about the input material, about the assumptions that underpin its method of
acquires a second language at school. If different courses were used, some ideas concerning their comparative efficacy would become available. But it is unlikely to show clearly why all humans can learn a primary language and only some can learn a secondary language.

When second language learning is considered at the sixth form level, there are several differences from the earlier stages that need consideration. Firstly the gap has widened considerably between the complexity of the language which is comprehended by the student and the complexity of the language which he himself uses. In the very early stages no such distinction really existed. There is at this advanced stage an important distinction to be drawn between active and passive language. Secondly the greater maturity of the student and his better grasp of the language should permit the reinstating of communication as the primary function of the foreign language. Thirdly there is no longer a simple, clear inducement to the student to produce near perfect copies of the input material. The limitations placed on language use in the early stages are no longer present; it is no longer a matter of repetition or of imitation. The student is in a situation much more akin to the acquisition of the primary language, for he is seeking the means of expressing his own ideas, either in written or in oral form. This also, as has already been mentioned, indirectly causes a feeling of being disheartened; measurement of progress is difficult to take.

In Les Actualités Françaises, a course for Sixth forms in
two parts first published in 1971, the presentation of the language took a very different form from the earlier courses mentioned. The first part is divided into seven topic areas, \(L\text{'enseignement, les jeunes, les loisirs et le sport, les transports, le logement, l'industrie et l'automation, la femme au travail et dans la société; }\) each area consists of a number of extracts, 34 in all, drawn from interviews, reports, magazine articles. In addition each topic area is furnished with relevant statistics charts, diagrams and cartoons. The student is being invited to plunder a rich language source, but his way in guided. Each text is presented in a similar way - the text, some general questions, not designed to test but to open up topics, an essay topic related to the text in question and for which a schema is suggested, a series of grammar points drawn from and illustrated by extracts from, the text itself and finally some exercises, designed for use in the language laboratory, based on the grammar points already mentioned. The basic teaching aim of each text is the preparation of the related essay topic, involving the elaboration of ideas and of their means of expression. Thus a much greater interest is being accorded to what is to be expressed as well as to how it is expressed. Translation is used only as a particular way of testing whether new language work has been assimilated; translation passages are used only at the end of the cycle of studies based on a text and take the form of re-translation exercises - putting back into the French which has just been studied passages of English based on that text. The whole course is based on a notion of enrichening and widening the earlier, more closely structured language teaching of the previous years. It is significant in this context that in the case of a
fundamental language structures - the various tense formations, use of subordinate clauses - he gains little or no advantage from this course. Perhaps he is weak already since he has not the aptitude for second language study; whatever may be the cause he is not able to form the necessary language abstractions for himself.

I have little doubt that where a student is ready to embark upon such a course the progress he makes can be considerable. Once he has learnt to exploit a text for himself, has become interested in the topics under discussion, the enriching process takes place. The essays which form the goal of each text-study show this. But I also feel increasingly certain that this would happen if the course consisted only of texts - that is, if the course as such were abandoned and texts compiled from magazines and newspapers so that the overall title of Actualités could remain more literal. The drawing of grammar points from the texts seems at the outset to have much in its favour. However in practice it proves inadequate, for, although certain aspects of the texts do need highlighting, there is a further, more important aspect which arises at this level of language work. The student's active use of language is only loosely based on the text-models; he is concerned now with expressing his own ideas. His own requirements do not often match those of the texts and the grammar sections are spread throughout the book with little ease of access since the order of their appearance depends on their chance occurrence in the texts. As an example, the students often first come across the use of
when this course is started, the course deals with the uses of the subjunctive over 16 of the 34 study-texts. I have found that sixth form students want to have such information grouped; I have found it impossible to give a clear idea of the use of the subjunctive by any means other than explanation. Also, if, as the authors suggest, only certain of the study-texts should be studied in detail, then in some instances the uses of the subjunctive drawn from a particular text will be missed. Finally, when dealing with the topics with which this course is concerned the students need the facility provided by the use of the subjunctive at an early stage.

If the course were abandoned as suggested, the other major item that would be dropped would be the carefully prepared exercises. I am very doubtful what the effect of these exercises is. Some are conspicuously for practice and reassurance to the student that a new point has been understood; for instance, the following exercise, the first on the newly introduced subjunctive point, is clearly of that nature.

Il le dit pour en finir
Exemple – pour que nous ....
Réponse – pour que nous en finissions

There follow five further items of this pattern, thus completing the present subjunctive of the verb finir. This is followed by two identically patterned exercises, the first using the verb "protester," the second the verb "répondre;" thus the three major regular groups of verbs are covered. There follow other similar exercises for the irregular verbs savoir, pouvoir, avoir, vouloir, aller, faire, être. Obviously no harm can be
function is that they play; for one of the criteria of language laboratory exercises is usually that students should not be faced with new forms. If these subjunctive forms are not new, the exercise seems to lack much positive goal. However most of the exercises are not of that type and do involve a more positive participation on the part of the student; for example the following exercise concerning the use of "lequel" and "donc".

Exemple : Les lycéens revendiquent des droits.
Ils sont prêts à se battre pour ces droits.
Réponse: les lycéens revendiquent des droits pour lesquels ils sont prêts à se battre.
Exemple: l'auteur de l'article semble comprendre la jeunesse d'aujourd'hui. J'ai lu cet article.
Réponse: J'ai lu l'article dont l'auteur semble comprendre la jeunesse d'aujourd'hui.

1. Il faut comprendre les problèmes sociaux. Les jeunes s'intéressent le plus à ces problèmes.
2. Voici un article. À la fin de cet article il y a des idées positives.
3. On critique les effets de la télévision sur les adolescents. Que faut-il penser de la télévision?
4. Les adultes jouissent de privilèges. Les jeunes critiquent ces privilèges.
5. On s'est attaqué aux étudiants. Il y avait eu une discussion entre ces étudiants.
Even if the point at issue has been clearly understood, I have found that students have invariably had difficulties with this exercise because the memory load is too great. They will usually be able to say or write down the correct relative pronoun even if the rest of the sentence escapes them; comprehension of the two stimulus sentences must therefore have taken place. In addition the sudden change in the pattern in sentence number three causes what would seem to be an unnecessary extra problem; similarly in number six. The exercise is not easy but the difficulties arise largely from peripheral factors. After it has been completed I am always left wondering whether the students have gained very much for the undoubted efforts demanded of them. This also applies to the language laboratory exercises in general of this sort for students at this level of study. It is almost as if this were a vestige of the controlled teaching methods used with younger students at an earlier stage in their language learning. For that as has been shown, the presentation and use of the language demanded of the students was limited and controlled. However now the basis of the course is the enriching and rendering more precise of the language used by the students to express their own ideas. It must be wondered what the student is expected to do with the grammar points being tested in these exercises within the context of that fundamental of the course. The function of the teacher would seem more clearly to be to display, highlight and, when necessary, explain the wealth of language material being put at the student's disposal; then when the student is seeking for means of expression, either orally or in writing,
to guide and control that expression - this will probably arise in the form of correcting, but the essential point is that the problems to be solved arise out of the student's own wish to communicate an idea.

It must be added that the immense wealth of material made available by Actualités Françaises renders the course one of great value. But of greater significance is that it has broken new ground in sixth form language teaching in England. The former courses with whose methods it has parted company were strictly based on the four sections policy - translation into the target language, translation into English, essays and grammar section. The exploitation of a contemporary text with the clear aim of writing an essay on a related topic, which is the basic form of Actualités, is the generally accepted form of language teaching in the Sixth forms of French schools. But here an extremely influential controlling factor of English teaching methods has to be confronted, that of examinations.

C. Vaughan-James and Sonia Rouve published in 1973 their "Survey of Curricula and Performance in Modern Languages 1971-72", in which, amongst other things, they made a detailed analysis of the A level examinations set by ten examining boards. It is pointed out that there is a relatively common core: "the reasons for this may be sought in the genesis of the examination, reflecting the traditional pattern of language and literature degree courses at those universities for which the A level serves as an entry qualification and, to a certain extent, a course preparation. In most cases little has been done to change the language/literature A level pattern." However extensive re-
Examining Board, in whose "Modified syllabus in modern languages at A level" emphasis is on the twentieth century "likely ... to be within the experience of young people aged 18 or 19 years ... reading ... modern literature and other spheres that interest them."

However at present the language papers set by the ten Boards demand at least one, and sometimes two, passages for translation from English into the second language, one essay in the second language on a subject chosen from a series of titles, and at least one translation from the second language into English. Only two boards, the Associated Examining Board and the Scottish Examining Board require other written tests; the former sets a passage of up to 800 words in the second language to be summarized in English and the latter sets a question on critical reading with a choice to be made between prose and verse. All but these two Boards set a dictation as part of the oral examination, and all the boards set an oral examination in which the student is required to read a passage aloud and to hold a conversation, which may be on the reading passage and related topics, on the books set for literature study or simply may be left an open conversation. The time allowed for this varies from an unspecified amount to half-an-hour. In addition to these language elements, there are the non-language elements: "... the unique characteristic of all A level courses is the study of literature, a fact everywhere reinforced in teaching and testing procedures." The report goes on to say: "But the absence of clearly formulated objectives stems partly from a refusal to make a sharp distinction between practical and cultural aims: in modern language teaching; indeed, the two theoretically
the question of relevance is indeed one which has been taken up by those boards which have instituted an element of civilisation in their syllabuses." The usual specification for literary study is four or five books for intensive study over the two years. When both the nature of the questions set on the books and the range of literary styles (from the seventeenth century to the modern day) are considered, the phrase used in the report - "two theoretically unrelated tasks" - takes on a clear significance. There can be no question of a set-book being studied as an adjunct to language-learning when that book is from the seventeenth century, on the one hand, and, on the other, when the student is expected to be able to answer in 45 minutes questions such as:

1. "In order to understand Camus's point of view, Tarrou and Rieux must be seen as complementary, and not as contrasting characters." Explain and discuss.

2. Do you consider Alissa's sacrifice as saintliness or folly? Give reasons for your point of view.

3. It has been said of Britannicus that there is a subtle balance between opposing tendencies and influences. Discuss this statement with reference to the character of Néron.

These questions are of a literary nature to a high degree, demanding a depth of study of the text that precludes any language element - indeed it is clear that much of the literary study, whether officially sanctioned or not, is carried out by
summed up in 1971 by the report of a German A level examiner for the Northern Ireland Board. "... a good showing on the literature paper cannot compensate for a failure in language, and rightly so; how much credibility can one attach to an apparently thorough understanding of four texts from widely different epochs in German literature, accompanied by a minimal showing on translation from the language, not to mention gross errors in writing it?

The demands of the existing A level syllabus are such that time over a two year course is at a premium. Leaving the literature aspect to one side, the requirements of the language papers do affect the teaching methods. To prepare A level candidates for the prose-translation does not, of course, necessitate the translation of a great number of passages into the second-language, but there are two points which make it affect teaching methods. The first is that more and more students begin their A level courses without any experience of translating since that requirement is increasingly being dropped from the 'O' level syllabuses. It is therefore something which is both new and difficult and the acquisition of whose technique demands time. Secondly the register of language in the passages to be translated, although changing in the past two years, tends to be literary and of a different nature to that demanded in the essays.

I feel that the A level course, as at present constituted, leaves many students and teachers with a sense of disappointment because too much is attempted. The literature study often excites interest amongst many students, as frequently dismay
acquisition of the second language has reached a sufficiently advanced stage for that translation into the second language to be effected with any feeling of surety. As a teacher, I would welcome an A level course which was uniquely concerned with second language acquisition and whose goal, in terms of examination, need require little more than essays in the second language and a more extensive form of oral test. This would contain the examination to testing the student's active use of the second language and would permit progress to be made in the elaboration of teaching materials which at present is largely denied because there is no requirement for them.

However the whole examination system is at present under fire. At GCE O level and CSE level considerably more work has been undertaken into the technique of examining the different language skills. However Vaughan James and Rouve were still able to write in 1972: "The GCE examinations are currently operated by nine boards, none of which sets forth the objectives of its modern languages syllabuses. Discussion with members of the boards reveals, however, that they consider the objectives to be implicit in the schemes of examinations, and that the skills to be tested may be deduced from analysis of the tests." This may be so, but it is also sad to note that particularly in the examination year, and sometimes even earlier, the teaching of the second language becomes a continuous round of examination practice, based on the past papers of the relevant board. Indeed, for the weaker candidates sitting for the CSE examination, I understand from several colleagues that the
to answer the increasingly popular multiple-choice papers; for these weaker candidates it would appear that the questions are rarely understood and that answers are contrived on the basis of the chance recognition of a word in the question which matches a word in one of the possible answers. If the vast amounts of time, energy and money spent on the teaching of foreign languages and on the examination of foreign languages have come to result in this, then some basic questions need to be asked and clear decisions taken. It was in this connection that in 1969 the then Committee on Research and Development in Modern Languages urged that a long-term forecast of national needs in modern languages was desirable. Out of this grew the two reports recently published, that of Vaughan James and Rouve already referred to, and "Foreign Languages in Industry and Commerce" by Emmans, Hawkins and Westoby, published in 1974.

What arises from the first of these reports is a detailed analysis of testing procedures and examination aims at all levels of language learning. In the schools these tests for which the students are preparing are to a very large extent dominating the teaching methods, although it is only in the case of the Schools Council Modern Languages Project, now at an end, that the testing procedures were directly linked to the method of teaching. Vaughan James and Rouve wrote that "The Nuffield/Schools Council examinations are the only O level examinations in languages which are based on a known syllabus indicating, lexis, structures and topic areas. The examinations also attempt, as far as
It is not possible to make an assessment of whether the Primary Schools Language Teaching Project, the introduction of sophisticated teaching aids and the elaboration of new methods and courses has resulted in a significantly surer acquisition of a second language by a greater number of school children.

Vaughan James and Rouve published a variety of statistics which are interesting but prove nothing in this connection. From 1961 to 1971, the number of candidates at 0 level have changed as follows:

<table>
<thead>
<tr>
<th>Language</th>
<th>1961-1971 Change</th>
<th>% Pass Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>136,637 to 142,991</td>
<td>57.4 to 60.1</td>
</tr>
<tr>
<td>German</td>
<td>22,855 to 35,155</td>
<td>59.6 to 61.0</td>
</tr>
<tr>
<td>Italian</td>
<td>651 to 3,456</td>
<td>64.8 to 66.3</td>
</tr>
<tr>
<td>Russian</td>
<td>761 to 3,145</td>
<td>68.3 to 65.5</td>
</tr>
<tr>
<td>Spanish</td>
<td>6,740 to 10,970</td>
<td>55.9 to 59.6</td>
</tr>
</tbody>
</table>

Over the same period, the figures for A level are:

<table>
<thead>
<tr>
<th>Language</th>
<th>1961-1971 Change</th>
<th>% Pass Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>16,230 to 25,743</td>
<td>70.1 to 70.3</td>
</tr>
<tr>
<td>German</td>
<td>4,713 to 7,651</td>
<td>74.5 to 75.4</td>
</tr>
<tr>
<td>Italian</td>
<td>326 to 922</td>
<td>55.5 to 76.7</td>
</tr>
<tr>
<td>Russian</td>
<td>230 to 846</td>
<td>84.3 to 83.3</td>
</tr>
<tr>
<td>Spanish</td>
<td>1,412 to 2,609</td>
<td>75.5 to 77.4</td>
</tr>
</tbody>
</table>

During the period 1960-1970 the percentage change in GCE passes in various subjects was shown to be as follows:

<table>
<thead>
<tr>
<th>Subject</th>
<th>0 Level</th>
<th>A Level</th>
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</thead>
<tbody>
<tr>
<td>All subjects</td>
<td>42.9%</td>
<td>107.2%</td>
</tr>
<tr>
<td>French</td>
<td>10.9%</td>
<td>75.6%</td>
</tr>
<tr>
<td>Latin</td>
<td>- 1.2%</td>
<td>- 15.8%</td>
</tr>
<tr>
<td>English Language</td>
<td>46.2%</td>
<td>184.1%</td>
</tr>
<tr>
<td>Subject</td>
<td>0 level</td>
<td>A level</td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Mathematics</td>
<td>35.1%</td>
<td>61.8%</td>
</tr>
<tr>
<td>Geography</td>
<td>37.8%</td>
<td>187.1%</td>
</tr>
<tr>
<td>History</td>
<td>10.3%</td>
<td>109.5%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>53.8%</td>
<td>29.1%</td>
</tr>
<tr>
<td>Physics</td>
<td>56.5%</td>
<td>36.6%</td>
</tr>
<tr>
<td>Biology</td>
<td>65.5%</td>
<td>316.3%</td>
</tr>
</tbody>
</table>

Such figures might lead one to suppose that the expenditure in effort and money on the teaching of French has not seen a very significant return. Such a conclusion however cannot be directly drawn, for the effects of changing examination systems and standards, to give but one example, cannot be taken into account.

However it is during this decade that the significant rise in teaching aids was seen. Many beginner's courses are based on the pictorial support given by film-projectors; many courses, and in particular the Nuffield courses, require extensive use of tape-recorders. These two items have become standard equipment in the majority of school language Departments. One item, in particular, however, has taxed financial resources and teachers' resources more than the others—the language laboratory. The introduction of the language laboratory resulted from the belief that language learning was a matter of habit-formation, of providing an automatic response to a given stimulus. That such a belief is no longer held, either for the learning of the primary or of the secondary language, has left the language
laboratory without its original theoretical support. However
the laboratory continues to be a significant feature in the
teaching of languages at schools and in further education.
Leaving aside the very major problem for schools of
laboratories which are inadequately services and which function
inadequately, there are certain features of the laboratory
which play a part in the presentation of the language.

Firstly, the laboratory is basically a means of
dislocating the block effect of a language lesson. Students
are able to work at their own speed and teachers are released to
concentrate on giving what would otherwise be an unwarranted
percentage of teaching time to certain students.

Secondly, with the assumptions taken above, each student has
the greater possibility of hearing more clearly than from a
single source in an ordinary classroom. Nevertheless, even if
the machinery is functioning adequately, there is still a serious
problem of clarity with taped language sources. Labial sounds are
frequently confused, vowel sounds frequently unclear.

The uses that can be made of the laboratory are far
greater than was originally suggested by, for instance, Stack
with the laboratory drills which he devised. Whether exercises
involving imitation, replacement of one element by another
language element, insertion of a language element, are of any
positive benefit, it is difficult to ascertain. There is
certainly the danger that the semantic element never enters the
exercise, so that the whole process remains uniquely at the
surface structure level. But the laboratory need not always
support allow for the open-ended questions that the lack of such support would render confusing; the laboratory can be used for "passive" language work such as the retrieval of information from oral sources; run on an open-library system, it can provide a source of active language work for individual students whenever they themselves wish.

It cannot be sufficiently emphasized that the language laboratory is no method of teaching. It is merely a technical aid permitting greater flexibility in the presentation of a second language, but the presentation itself of that language should not be determined by the laboratory.

To return now to the fifth assumption drawn from the Linguaphone advertisement, notably that the learning of a primary and of a secondary language is an identical process, several disparate threads need to be drawn closer together and seen in closer relationship to each other.

The acquisition of the primary language has already received and continues to receive widespread investigation. It is much more susceptible of such investigation because there are fewer variables; the child has no language at the outset and the are therefore no problems of language interference; the acquisition takes place, whatever the speech community being considered, under similar language surroundings - that is, no course of learning has to be devised and the assumptions underpinning such a course therefore do not have to be questioned - the child abstracts the idiosyncrasies of the language of his own speech community simply from the everyday life of that
When the second language is considered, the problems are more diverse, and the variables greater. Depending on the age of the child at the start of the acquisition process, there may or may not be another language already established. Depending again on the same factor the acquisition rarely takes place under similar language surroundings, and varies from the young child learning a second language under "natural" conditions, that is attempting to abstract the idiosyncrasies of that secondary language from his everyday environment, to the person being taught a second language under school conditions.

The acquisition of the primary language seems to be characterized by several factors. Firstly, according to Lenneberg's hypothesis, the process is basically natural to the human being and forms part of the maturational process, neither wholly dependent on nor wholly independent from, motor-skeletal maturation. Children throughout the world normally begin to speak between the eighteenth and twenty-eight month. Secondly, investigations in several different language communities have shown that children progress in a similar way, irrespective of whether these communities are in the developed or under-developed world - observations of children in central New Guinea and Brazil supported this. The sounds uttered by neonates show no differences in profiles over racial, cultural or language groups; the further development of those sounds follows a similar pattern of vowel and consonantal development and at the same time differential reinforcement.
profiles at the babbling stage show differences of language groups; at the period of the appearance of the first words, the holophrastic stage, it is proposed for all children that this speech corresponds to the full sentences of adults; at the telegraphic speech stage, with the appearance of the first two and three word utterances, a similar process of Pivot-Open has been observed in several language communities, although this process is under review at the moment; similarly, resemblances have been noted in different language communities concerning the development of transformational rules (notably those governing the negative transformations as noted in English by Bellugi and in Russian by Slobin; lastly it has been noted in different language communities that the process of embedding only comes at an advanced stage of acquisition.

These different stages, observed independently in different language commentaries, lead to the presently held proposition that children must be born with some language acquisition device which contains certain universal linguistic concepts which are used as a template to put against the particular language of the community into which the child is born; further that children acquire language by adopting additional linguistic hypotheses, which take the form of transformations and which permit the child to bring his own speech output nearer in structure to that of the adult.

When considering the development of the bilingual in its broadest sense, both the age at which acquisition takes place and the way in which the language is presented are crucial. In the case of the person, of whatever age, acquiring a second
simply by being resident in the community where the second
language is spoken, it would seem that acquisition is likely to
be more complete the younger the child is and that in any case
acquisition is likely to be considerably less complete once the
period of language readiness finishes with the onset of puberty.
Little if anything is known about how such a person, after the
age of puberty, acquires a second language in this way and no
adequate psychological explanation has been advanced for the
state of bilingualism in general, beyond the general suggestion
by Osgood in 1954 that the mechanisms of the storage process can
be stated in terms of decoding and encoding habits, which gave
rise to the theory of compound and co-ordinate bilingual systems
adumbrated earlier in this study.

If the case of the acquisition of the second language
through teaching in school is considered, the whole emphasis
is shifted once more, and the possibility of meaningful
research work being carried out is further complicated by a
plethora of added variables, many of which are not specific to
language acquisition. One of the fundamental points central to
this issue is that of the motivation of the individual student.
In the cases of language acquisition just considered, motivation
is, for the young child learning his primary language, provided
by the natural impulse to learn language; for the person learning
from his language environment, the motivation may no longer
be a natural impulse but is provided by his situation of wishing
to acquire the means of communication. In the school, motivation
is not so clear; in the first place the need to communicate can
situation is false from the outset. Motivation, or the lack of it, may be provided from the home, from the teacher, from school friends, from personal interest, from career demands. But essentially the motivation is little different in origin from that for any other school subject; indeed it might be less. It would seem that frequent contact with nationals of the particular language in question should form a basic part of a language department's preoccupations in a school. However the factor of expense weighs heavily and very unfairly.

Apart from the problem of motivation, there are other clear distinctions to be drawn between the acquisition of a primary language and that of a secondary language taught in a school. Firstly, children in school already have acquired a mother tongue, which may or may not be similar to the language they are to be taught. In connection with this language distance, a concept developed by W.M. Mackey in "La distance interlinguistique" (1971), Vaughan-James and Sonia Rouve wrote, treating the problem as one of the areas requiring further research: "We were struck by the tendency of examining authorities when describing learning objectives to assume that all five languages (French, German, Italian, Russian and Spanish) could be regarded as similar. In fact different languages would appear to present quite different learning problems of English-speakers. There are obviously varying degrees of difference in structure, phonology, and lexis as compared with English; less obviously there are differences in the learners' cultural familiarity with, and social or psychological
attitudes towards, different languages. It is not simply a question of some languages being easier to learn than others, it is much more one of some languages presenting entirely different learning tasks. It might also be added that there are often significant differences in the balance of skills at the command of the teachers of the different languages .... There has been a noticeable lack of serious attempts to assess objectively not only the relative difficulty for English speakers of learning various languages, but more usefully perhaps, which particular skills in the five languages learners should be expected to acquire at different stages of learning."

Secondly, the presentation of the second language assumes vitally different forms. It will probably be presented orally, as was the primary language, but it will be presented, from the beginning, in fully formed, adult sentences directed straight to the student and not obliquely across him as with ordinary conversation. Further the student will generally be able to understand, from the beginning, all that is directed to him. As he learns more, the language presented to him becomes increasingly complex; that is, his language source is graded.

Thirdly the student's response to the language presented will take the form of fully-formed coherent sentences - at least that is the expectation given him. He will not be involved in conversation but in replying to occasional isolated questions. There is no babbling stage, no holophrastic stage, no telegraphic stage. He is not abstracting for himself from a sea of sound the idiosyncrasies of that particular language; the idiosyncrasies are being presented to him in a more or less carefully graded way. He
is notaddocktheenvironment. He is really designed to use the
physical way in the situations created with the secondary
language and he is beginning to find that other languages have
decoded the environment in a different way. In addition he will
be required to respond in writing at a stage in his acquisition far
in advance of the time he started writing his own language.

The processes of primary language acquisition and of
secondary language acquisition through teaching seem thus
fundamentally different with only a few peripheral similarities.
But it must be remembered that very little is known about the
precise physiological or psychological processes involved in
the learning of a second language, and that the differences
outlined above stem very largely from the way the secondary
language is taught, not from the way it might perhaps be learned.

Palmer is quoted elsewhere in this study as wanting to
imitate as much as possible the procedure by which a child learns
its mother tongue. It would seem to be wholly impossible and
difficult to imagine which aspects of primary language
acquisition have any relevance for the teaching of secondary
languages, or even for the learning of secondary languages in the
school. It would seem to be of fundamental importance to make and
maintain a very clear distinction between the two procedures.
Research into the teaching and learning of secondary languages in
school, it would seem, must be based fully and only on the problems
encountered under those special circumstances. This is certainly
not always the case; the teaching of French in the Primary Schools
is an example, and perhaps an expensive example, of how research
into first language learning has fired an enthusiasm amongst
teachers of second languages. That young children are capable
enthusiasm for introducing second language teaching schemes into Primary Schools has very frequently run into serious administration problems. The required teachers are not available at that level and, where they are, they find themselves becoming specialist teachers at a level they had entered specifically in order to be class teachers; there has rarely been any planned follow up of such teaching into the next level of secondary schools. That is not to say that such teaching should not take place; but it must, for reasons that would seem to be obvious, take place under conditions of intelligent organization and not simply resulting from a new enthusiasm. The issue was raised as a result of research into first language acquisition, the fires were ignited, but the full implications were not appreciated.

There is, however, perhaps one vital and central area where research into first language acquisition has brought light to the problem of second language learning and teaching. Work by such people as Chomsky, Lenneberg, McNeill, Menyuk and Slobin has shown that children do not learn their mother tongue through imitation of their parents but that they do so by a continually evolving process of making linguistic hypotheses. What they learn is not so much words as the abstract properties governing the formation of the language. This is the vital, central area; it concerns the nature of what is learned. This is perhaps also applicable to the learning of the second languages; what requires to be presented to the student are the language patterns forming the basis of that language, seen always clearly in a situational context so that the student remains constantly aware of the meaning carried by the language he is exposed to.
Once that element is dropped a return is abruptly made to surface structures only, and to the complaint, voiced by Smith and Miller in 1966: "First, surface structure; then, base structure. Most behaviourist theories have assumed this order, with notable lack of success ...." Lenneberg made the same point more positively: "What is acquired are patterns and structures, not constituent elements."


5. Lenneberg: (see note 4) P. 132

6. Lenneberg (see note 4) P. 140

7. Lenneberg (see note 4) P. 139

8. Lenneberg (see note 4) Pp 309-310


12. Lenneberg (see note 3)

13. Lenneberg (see note 4) P. 376

14. see note 8 for Chapter 1


17. D. McNeill (see note 15) P. 16


20. J.A. Fodor (see note 16) P.112.

24. Slobin (see note 18): P. 9

25. Lenneberg E.H. (see note 4) P. 279


27. Lenneberg E.H.: (See note 4) P. 280


29. P. Menyuk (see note 9) P 55

30. P. Menyuk (see note 9) P. 57

31. P. Menyuk (see note 9) P. 60

32. P. Menyuk (see note 9) P. 251
34. D. McNeill: The Capacity for the Ontogenesis of Grammar:
P. 19. (in D. Slobin: see Note 18)

Row P. 20

36. D. McNeill (see note 35) P. 23

37 quoted by McNeill (see note 35)

38. P. Menyuk (see note 9) P. 89


40. D. McNeill (see note 35) P. 20

41. D. Slobin: The Acquisition of Russian as a native
language Pp 129 - 145 (in F. Smith and G. Miller (eds.):

42. quoted by McNeill (see note 35) P 83

43. McNeill (see note 35) P. 83

44. McNeill (see note 35) P. 84
   (in Psycholinguistic Papers: 1966)

46. Lenneberg (see note 4) P. 377

47. McNeill (see note 45) P. 101

48. Slobin (see note 18) P. 6

49. I.M. Schlesinger: Production of Utterances and Language Acquisition: Pp 63-103 (in Slobin: see note 18)

50. quoted by McNeill (see note 45): P 103

51. McNeill (see note 45) P. 107

52. McNeill (see note 45) P. 109

53. McNeill (see note 34) P. 19

54. McNeill (see note 34) P. 20

55. McNeill (see note 34) P. 18

56. McNeill (see note 34) P. 18

57. McNeill (see note 34) P. 23
59. McNeill (see note 15) P. 27

60. McNeill (see note 34) P. 24

61. McNeill (see note 34) P. 26

62. Lenneberg (see note 4) Pp 309-310

63. McNeill (see note 35) P. 62

64. McNeill (see note 35) Pp 29 - 33

65. Siobin (see note 41) Pp 129-145

66. Siobin (see note 18) P. 10

67. Siobin (see note 18) Pp 10 - 14

67a. P. Menyuk (see note 9) Pp 180 - 181

67b. P. Menyuk (see note 9) P 55

68. Osgood and Sebeok (see note 28) P. 127

71. W.D. Halls: see note 9 Chapter 4: Pp 45-59

72. Chomsky, N: Formal nature of Language: Pp 397-443

   (in Lenneberg: see note 4)


74. W.D. Halls (see note 71) Pp 45-59

75. W.D. Halls (see note 71) Pp 45-59


77. see note 76: P. 58 para 3.02

78. see note 76: P. 59 para 3.07

79. see note 76: P. 59 para 3.07

80. see note 76: P. 60 para 3.10

81. see note 76: P. 53 para 2.00
83. see note 76: P.11 para 3.01

84. Lenneberg (see note 4) P 281
<table>
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<tr>
<th>Author</th>
<th>Title</th>
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<tbody>
<tr>
<td>Brereton, Cloudesley</td>
<td>Modern Language Teaching: 1930, University of London Press</td>
</tr>
<tr>
<td>Bruner, J.S., Olver, R.R.,</td>
<td>Studies in Cognitive Growth, New York:</td>
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<tr>
<td>Calder, Nigel</td>
<td>The Mind of Man: 1970, B.R.C. Publications</td>
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<td>Comenius, J.A.</td>
<td>1. Ianua linguarum reserata (1631)</td>
</tr>
<tr>
<td></td>
<td>2. Orbis sensualium pictus (1958)</td>
</tr>
<tr>
<td>Dallöf, Urban</td>
<td>Kraven på gymnasiet: 1965, Stockholm</td>
</tr>
</tbody>
</table>


Gouin, Francois : Art d'enseigner et d'étudier les langues: 1880


Halls, W.D. : Foreign Languages and Education in Western Europe : 1970, George C. Harrap & Co., Ltd.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.A.A.M.</td>
<td>Memorandum on Teaching of Modern Languages</td>
<td>1929, University of London Press.</td>
</tr>
</tbody>
</table>
Luce, R., Bush R. & Galanter, E.

Mallinson, Vernon.

McNeill, David.

McNeill, D. & McNeill, N.B.

Mensikova, Antonie


: Teaching a Modern Language : 1953 Heinemann,


: Sentence Patterns in the Theory and Practice of teaching the Grammar of French as a foreign language (in Fried. V.: The Prague School of Linguistics and Language Teaching : 1972 Oxford Univ.Pr,
<table>
<thead>
<tr>
<th>Author</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montaigne, Michel</td>
<td>Les Essais: 1580</td>
</tr>
</tbody>
</table>


Vištor, Wilhelm : Der Sprachunterricht muss umkehren : 1882.
