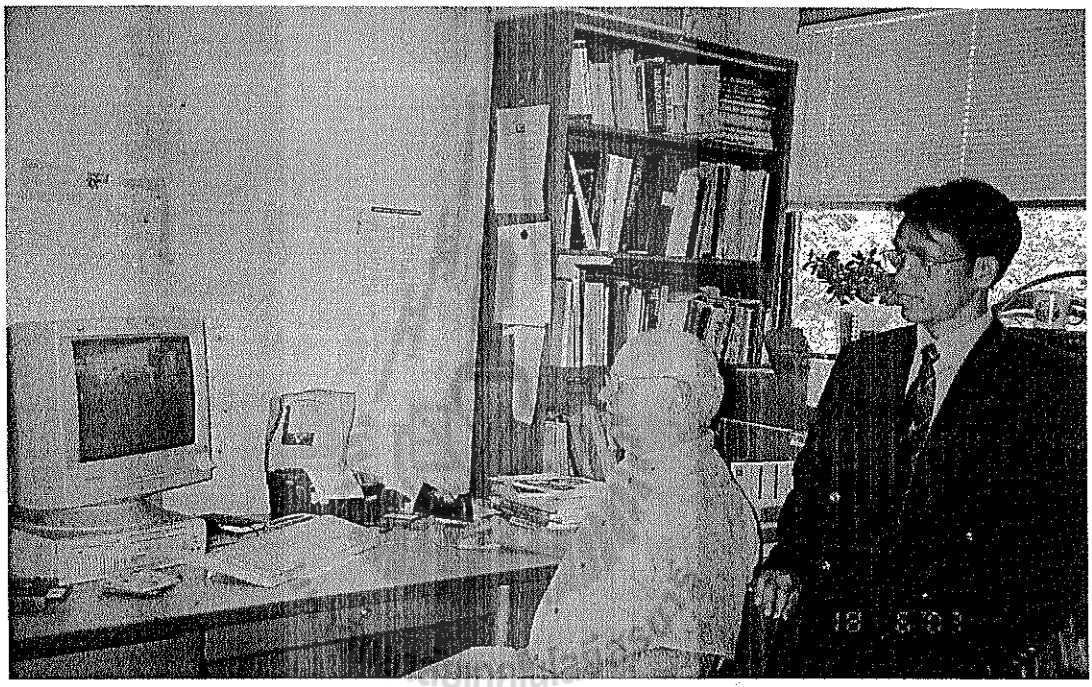
LINGUISTICS
FOR LANGUAGE TEACHERS



Dhirawit Pinyonatthagarn
Ph.D. (Linguistics)

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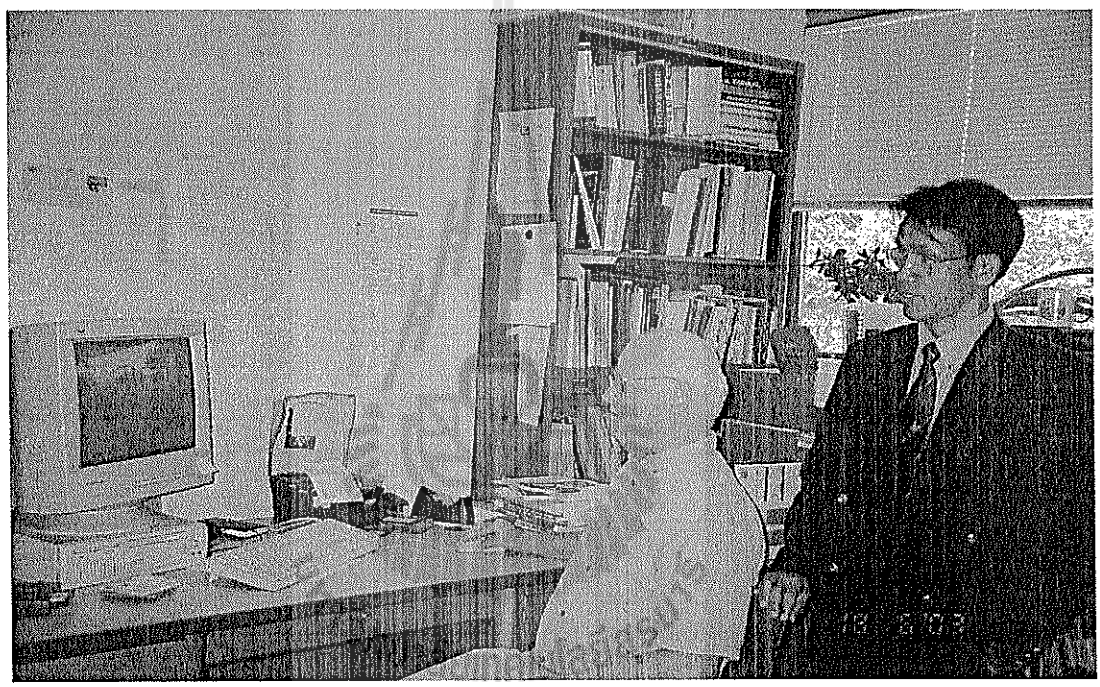

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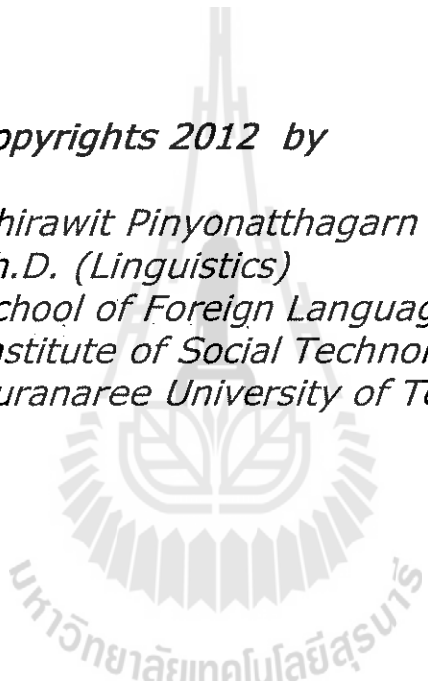

Dedication

I fondly dedicate this book to Professor A.K. Sinha, Professor R.N. Srivastava, Professor K.V. Subbarao, and Professor Prem Singh, my Indian linguistic gurus, during 1979 – 1989, and Professor Noam Chomsky, MIT, USA, who have had great influence on my knowledge and understanding of Linguistics.

Foreword

It has been my keen intention to write a book on various aspects of Linguistics, the field I had studied quite thoroughly for my Master and Doctoral Degrees, to demonstrate how it can be useful in teaching and learning English for both students and teachers alike. This book is intended for graduate students as well as language teachers of English who are not native speakers but teach English as a foreign or second language. It explains how Linguistics can help them improve their practical and deep knowledge of English and make them more effective and efficient in designing courses, planning lessons, and teaching English at all three levels: primary, secondary, and tertiary.

Frankly, it took me a few years to analyze the needs of language teachers and graduate students who pursue their higher study to become a professional in language teaching. I have learned from my own experience of teaching undergraduate/graduate students and from long years of contact and discussion with language teachers and graduate students who are also language teachers. This book is thus a result of my intellectual fermentation, cumulative knowledge, and experience throughout my studying and teaching career.

Personally, I do hope this humble attempt will in some ways spark the imagination of language teachers and show them more efficient ways to learn and teach English, and in turn, help their students achieve their goals in learning English for both personal and professional development.

Admittedly, all the errors, inaccuracies, omissions containing herein are mine and mine alone.

Acknowledgements

First of all, I thank all the people who have tremendously contributed to my intellectual growth and the completion of this book: my parents, my wife and kids, my teachers, my colleagues, my students, and my secretaries.

Next, I must thank Suranaree University of Technology, Nakhon Ratchasima, Thailand, for initiating the project on One Instructor, One Product and giving me the opportunity to do what I need to do, i.e., writing this volume based on my knowledge, skills, and experience.

Lastly, I express my deep thanks to all the scholars, experts, and authors whom I quoted in this book. Without them I would not have been able to give a final touch to this work. I owe a profound sense of gratitude to all of them.

Dhirawit Pinyonatthagarn
School of Foreign Languages
Institute of Social Technology
Suranaree University of Technology
Nakhon Ratchasima
Thailand
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CHAPTER ONE

Introduction to Applied Linguistics

Applied Linguistics is the collective term for the various applications of linguistic (and phonetic) scholarship to related practical fields-foreign language teaching, lexicography, translation, speech pathology and therapy, error analysis, etc. Applied linguistics in the widest sense, therefore, borders on other disciplines, e.g. sociology, anthropology, biology, computational linguistics, stylistics, etc. The speech therapist, the literary critic, the translator; the communication engineer, the language teacher, the syllabus framer, the educational planner, the textbook writer, the dictionary, maker have found linguistics useful for their work. Applied Linguistics is a consumer, or user, not a producer of theories. As a field of study, it is about 25 years old.

If a person knows a language and its structure, it may help him write better text-books, teach it more efficiently and translate it more accurately. if a learner who wants to learn a language is told about its systems and sounds scientifically he may learn it sooner and better than he would do it by haphazard, hit-or-miss manner. A learner of a foreign language can acquire with the help of phonetics accurate pronunciation.

Psychologists and neuro-surgeons are interested in the function of the brain and the principle of learning. A child's attempt to learn a language, his ability to categorize, his loss of control over his linguistic skills (reading, writing, speaking and listening with understanding), his conceptual capabilities and failures-all aid the specialist in his field. Engineers who know the properties of speech can devise better telephones, telephones that can operate when you dictate rather than dial the number of subscriber. Instead of touch-typewriter we can have dictation typewriter, and machine can do the translation word done by humans. We can have better radios and better television receivers.

It is believed that each man's voice-print is unique as his thumb-impression. It may be easier for officers of the law to apprehend criminals and bring them before the bar of justice with the help of tapes of recorded conversation.

Philosophers can take a fresh look at some of the unresolved controversies in their fields with the insights gained by their acquaintance with linguistics-for example, between the rationalist point of view and the empiricist point of view about the nature of learning. They can also study the structure of meaning and the validity of forming linguistic universals.

Sociologists can take a look at the interaction of social groups, the role played by languages and dialects in group dynamics, the problems created by bilingualism, polylingualism, etc. Anthropologists can study a community better if they knew the language of the community.

Mathematicians are interested in the formal properties of natural languages and how meaning is mapped into sound. in devising computer languages, such information proves valuable. Teachers of composition can easily diagnose the problems of their students and suggest quick and effective remedies to improve their performance.

Above all, the study of language satisfies our intellectual urge, and we derive satisfaction and pleasure when we come to know about the mysteries of language. Finally the rhetorical question: 'why should anyone want to study the work of Shakespeare, Picasso and so on?' The answer is 'for its own sake'.

Thus the study of linguistics quenches linguistic thirst, gives the knowledge of the properties and mysteries of language, illuminates ancient and pre-historic culture, helps in improving and reforming spellings, vocabulary, pronunciation, usage, interpretation. Some day advances in linguistics may help in the creation of some new international language, in developing new kinds of talking machines, in understanding the language of any other species if found on any other planet, although so far there is no proof of life on any other planet. The study of linguistics is also useful in the information of scripts and spellings, production of teaching materials, dictionaries, grammars and text-books.

Linguistics and Language Teaching

Since the end of the Second World War much heat has been generating on the relevance of linguistics to second language teaching. Many a time extreme views have been expressed. Some over-enthusiastic neo-converts to linguistics confusing language could be made without the knowledge of linguistics. Others reject it saying teachers are born and not made. Some find only indirect applications of linguistics to the teaching of second languages useful and acceptable, whereas some others still see its direct applications. In a sense, such controversies are meaningless and unwanted. Neither the linguists are technical hawkers nor the language teacher ginger merchants. Both are sane people engaged in an activity related to the development of human knowledge and human mind.

A lover of tradition may reject linguistics on the following grounds:-

- Linguistics and language teaching are two different disciplines. One is science and other is mostly an art. The objectives of the linguist and the language teacher are at great variance. What is elixir to the linguist may be poison to the language-teacher.

-Linguistic hunches about language acquisition are not well proved and verified. Linguistics is not yet fully developed; it has not reached a mature stage to offer useful universal insights and practical applications for language teachers. There is no concord, agreement and uniformity in theories, terminology, methods, conclusions, classifications, etc. among the linguists. Even in matters such as parts of speech, classification of

sentences, categories and sub-categories, kinds of meaning, branches of linguistics, scope of linguistics, and linguistic levels, there are basic differences.

- Linguistics is a vast jungle of paradoxes-a messy and mazy discipline. Moreover, it is getting extremely sophisticated and technical day by day.

-The forms of grammar, the linguistic theories of language analysis offered by the linguists are not only inadequate and incomplete, but are pedagogically unsuitable.

- The amount of time and energy wasted in making the teacher linguistically knowledgeable and adaptable and the net results gained seem to be out of proportion.

-Since most of the early language teaching in many countries such as India is carried on by undergraduate teachers, they are not mentally prepared to assimilate the linguistic acrobatics.

Mackey sees no worthwhile relevance of linguistics to the teaching of English as a foreign language. His main objections are that linguistic descriptions are not identical and similar; the methods of the linguistic scientist as a teacher are not necessarily the most effective; the errors predicted by contrastive analysis are not always because of mother tongue interference; it is not enough to predict mistakes, what is needed is their correction; applications of different descriptions are so superficial and incomplete and misleading that there is a multiplicity of terms and approaches in linguistics; and that most of linguistically approved grammars are difficult to follow.

Then there are statements of outstanding linguists like Chomsky: I am; frankly, rather skeptical about the significance, for the teaching of teaching of languages, of such insights and understanding as have been attained in linguistics and psychology...it is difficult to believe that their linguistics or psychology has achieved a level of theoretical understanding that might enable it to support a 'technology' of language teaching.

Should the language teacher then give up in despair and go back to the bad old ways and the days when the scientific approach was regarded with uncomprehending mistrust, and when the teacher preferred his own 'intuitive' knowledge of the language? Certainly not. Linguistics is not a useless stuff. It is not and should not be an end with language teachers. If used as a useful tool, it may be found worthwhile and relevant.

A host of scholars such as Halliday, McIntosh, Wilga Rivers, Paul Roberts, Sol Saporta, Lakoff, etc. find linguistics very useful to second language teaching. The following arguments can be put forward in favor of linguistics regarding its role to language teaching:-

(1) Linguistics is one of the major components of language teaching, other being organizational, pedagogic, technological, psychological and sociological. Linguistics has considerably branched off

to psychology and sociology and the disciplines like psycho-linguistics and socio-linguistics besides pure linguistics have tremendous insights to offer to the teacher as well as the learner by answering questions like the following:-

(a) How is a language learnt? What is the difference between first language acquisition and second language learning? What is the innate, built-in property of human mind that internalizes the generalizations about a language?

(b) What does it mean to use language according to the role, the situation and the occasion, the hearer, etc.

(c) Is register based course possible and useful? If yes, how can a register based course be prepared?

(2) Linguistics helps in taking fundamental decisions such as which languages are to be taught up to what time and at what level in an educational system. "When such fundamental decisions have been made there is another aspect of planning and decision-making which is based on economic, administrative and social considerations within the country. For how long, for what purpose and to whom shall certain languages be taught?... And here again the socio-linguistics has a part to play?"

(3) So linguistics helps in determining the place and position of a foreign language in a syllabus and also helps in determining the aims and objectives of the teaching of the target language. Since teaching is determined by syllabus, linguistics has great usefulness for the syllabus-designer and can help him in determining, how, why, when and whom to teach. "Applied linguistics has to do with the devising of syllabuses and materials for carrying out the intentions of authorities whether local or national."

(4) Since teaching is to take through txt-books, linguistics can help the text-book writer to prepare linguistically sound, learners' need-based textbooks. Linguistics can also contribute in the selection and gradation of vocabulary and structures.

(5) Theories and descriptions of language make the teacher aware: how does a language work and function? What is its nature? What are its systems and subsystems? how is the learner's first language a hindrance to second language? Why does a learner commit the errors of particular king? What are the characteristics of human language?

(6) Better theories and descriptions lead to the formulation of better methods and techniques of language teaching. Good descriptions of a language imply: a definite attitude towards a language, a definite stand how a language works and how it is to be accounted for, ability to perceive the difference between one language and the other.

(7) Linguistics has offered to all those concerned with language teaching many a useful insight and awareness. Concepts such as 'language' and 'parole', 'competence' and 'performance': 'syntagm', 'paradigm', 'system', 'abstraction', 'dialect', 'register', 'pidgin', 'creole'. 'diglossia', 'synchrony,' 'diachrony', and a host of these have become home words not only for the linguists but also for the language-teachers. Language has been looked afresh. Linguistics has tried to define complex phenomena like 'language' 'language teaching', 'language acquisition', 'language learning', etc. It has been able to explicate the distinction between human communication and other systems of communication, more especially between human language and animal system of communication. More significantly, linguistics has removed a number of misconceptions about language and language teaching. Linguistics has further established the supremacy of the current spoken form, the sameness and uniqueness of languages, has accepted language change and variation as an important phenomenon, has distinguished between mother tongue acquisition and second/ foreign language learning, has impressed upon the need of examining the existing grammars open-mindedly and formulating more adequate grammars and theories of language, has established that literature is only one register of language. It has made contributions to grammar, semantics, machine translation, reading techniques, para-linguistics, etc. Albert Marchwardt rightly says:

Despite the fact that we now have available linguistically oriented English-language teaching materials on many levels, where ten years ago there were virtually none, I still believe that the most important contribution that linguistics can make to the classroom English teacher is in reshaping his view of language and of language learning. Linguistically sound teaching materials can be expected to produce satisfactory results only when they are used by linguistically knowledgeable and sophisticated teachers.

Linguistics has shown the possibilities, probabilities and plausibilities of how a language behaves : it has made prediction about the phenomena of language, has unified heterogeneous facts about the phenomena of language, has removed and corrected the folklorist attitude towards language, has provided new notions, ideas, insights, and concepts about language, has provided with the discovery, evaluation and decision procedures, has established a useful set of dichotomies between sound and meaning, langue and parole, competence and performance, synchrony and diachrony the articulatory and the acoustic, the individual and the society, the material and the immaterial, the sameness and the insameness, etc.

The concern of linguistics as well as of language teaching is grammar, vocabulary and pronunciation. Hence both are concerned with different objectives with the same material, and have a give-and- take

relationship. Linguistics has provided a number of grammars out of which better pedagogical grammars can be built. With the help of the phonetic alphabet and other phonetic insights, the learning-teaching of pronunciation has been greatly facilitated. The greatest contribution of linguistics is to increase one's understanding of the nature of language. Anyone who has studied linguistics is sensitized to language and thereby to the complexity of language learning. They will be better able to exercise critical judgment of attractive innovations in language teaching, including those that may claim to be supported by linguistic research. Willkins believes that "the linguistically sophisticated t4eacher's judgment is better informed though still subjective," and the " the value of linguistics is that by increasing his awareness of language, it makes him more competent and therefore a better language teacher."

(8) Methods of language teaching like fashions have been changing along with the developments in linguistics. Audolingual, bilingual, function skills methods, implicit method (grammar taught through pattern drills without explanations), explicit English method (pattern drills in combination with explanations in the target language), etc. are the byproducts of linguistics. In this field again, the linguist can help the language teacher better, and a teacher with the help of his knowledge in linguistics can evaluate and test the method most suitable to him, or at least can evaluate a good and a bad grammar. There has never been a non-linguistic method of teaching languages, and the so-called linguistic method is not like a sudden fall from the blue of linguistics. It is a gift of linguistic evolution. Since empirical research has failed to provide us with firm answers related to the questions regarding language teaching, the only refuge left out is to seek assistance from linguistics.

Hence the study of linguistics to the language teacher is quite rewarding. Linguistics offers INSIGHTS/'notions that increase one's understanding of the nature of language and consequently of the nature of learning', IMPLICATIONS 'affecting the decisions about the methods and techniques of teaching', and APPLICATIONS, the 'cases where notions and information drawn from linguistics act directly upon the process of language teaching'.

Nevertheless, foreign/second language teaching is currently getting eclectic as stated by the editor of The English Teaching Forum:

Current thinking in language-teaching methodology seems to show a trend toward eclecticism-that is, toward 'choosing what appears to be the best from diverse sources, systems'. Eclecticism is sometimes misunderstood to mean that all approaches are equally valid...and that therefore it is important to know what various methods or ideas or new experiments or trends are. An approach that is truly eclectic makes the greatest demands on the teacher. It requires him to know enough about

the various sources, systems, and styles of teaching to choose wisely between what is good for his particular purposes and what is not useful for him. It requires of him both an intelligent skepticism and a ready enthusiasm-a willingness to reject both old and new techniques that seem unsuitable and an eagerness to refresh his teaching with useful adaptations of techniques both new and old. To so this intelligently, he must be well informed about the methods and techniques that are available to him.

So the antagonism between the language teacher and the linguist will indeed look trivial and uncalled for if the validity of the editor's opinion cited above is accepted, and if we agree that by teaching is not meant only an operation performed by the teacher inside the classroom but an inter-disciplinary, co-operative activity involving learners, society, government, education policy, language policy, syllabuses, teaching pedagogy, teaching pedagogy, technology, materials available, kind of teachers available, classrooms and the strength of students in a class, examination system, evaluation, etc.

Moreover, linguistics may offer some useful things in some areas of language teaching. But it is not a panacea, a methodology, a subject matter a code of conduct, a law, a judgment, a legislation, a demi-god to be imposed on a teacher. Ultimately the teacher has to decide whether linguistics is useful for him or not. If it is useful, which linguistics, in what forms, how much of it is going to help him and his learners. 'Linguistics is not a teaching method, but a growing body of knowledge and theory; and though it may offer helpful answers to some of the problems of language teaching it surely does not know all the answers. Linguistics is a tool, and, like any tool, useful only in the hands of a craftsman who knows how to use it. For a linguist linguistics is an end in itself, but for teacher it is only a means to an end. Linguistics to a teacher is cosmetics to a woman, or as Bolinger has said, 'Linguistics to teaching is chemistry to medicine'. Hence the ultimate decisions have to be made by the teacher himself. Even Mackey and Chomsky heave accepted the role of linguistics. Mackey writes:

Although the ability to analyze a language may not be the most important qualification of a language teacher, some training in practical linguistics can enable him to establish with more precision than he otherwise might what is the same and what is different in the languages with which he has to deal. It can also help' him to understand, evaluate, and perhaps use some of the descriptions of the language he is teaching. And if the training is neither too one-sided nor doctrinaire it may prevent him from becoming the prisoner of a single school of thought and encourage him to surmount the great terminological barriers which have prevented any mutual understanding in linguistics.

Noam Chomsky does not reject the use of linguistics in the teaching of language completely either. He observes: Teachers, in particular, have a responsibility to make sure (the linguists') ideas and proposals are evaluated on their merits and not passively accepted on grounds of authority, real or presumed,. It is possible-even likely-that principles of psychology and linguistics, and research in these disciples may supply useful insights to the language teacher. But this must be demonstrated and cannot be presumed. It is the language teacher himself who must validate or refute any specific proposal.
Chomsky further adds:

.....there are certain tendencies and developments within linguistics and psychology that may have some potential impact on the teaching of language. I think these can be usefully summarized under four main headings: the 'creative' aspect of language use; the abstractness of linguistic structure, the role of intrinsic organization in cognitive process.

What Chomsky is suggesting is not a rejection of linguistics, but a synthesis of pedagogy, psychology and linguistics. Then there are strong advocates of linguistics. Paul Roberts says, linguistics has provided with a suitable subject matter for the teaching of English, and goes on to add: 'IT gives us something that is teachable, interesting, and pertinent, and that is what most distinguishes it from traditional grammar.' Sol Saporta is of the opinion, "If linguistics has any contribution to make to language learning, it is this: to make explicit in general and in particular what is learned." And then there is the testimony of Pit Corder who says:

The application of linguistics to language teaching is an indirect one. It is not a single-stage operation. That is why many teachers. When first introduced to linguistics, see no relevance in it for their word and, conversely, why many linguists unacquainted with language teaching in practice disclaim any practical usefulness for their work. The fact seems to be that only those who are familiar with both linguistics and language teaching are in a position to discern the relation between the two.

Hence the relevance of linguistics to foreign language or second language teaching is not in doubt. But we have yet to find out answer to questions like the following:

- What kind of linguistics do we need for foreign or second language teaching?
-How much of it do we need?
-When and in what form are we going to use it?

CHAPTER TWO

Language Teaching

Language teaching involves not only teaching in the class or online-offline activities, but also designing of courses, methods, creativity, etc. What we must take into consideration when we teach the language include the following.

The Designing of Courses

The courses for class room use the teachers should keep the needs and abilities of their students in their minds. Generally a class in an Indian school or college contains students of widely varying standards. These students can be distinguished as the advanced, the average, and the poor. Results can be achieved much quicker if the three types of students are segregated but that is not always possible or desirable. So, the teachers have to exert more and see that all the three types of student are catered to properly according to their needs and abilities. While imparting oral drills the teacher should not have more than ten students, and therefore, the students have to be grouped, each group consisting of only ten students.

Methods

Earlier, the translation method was very much in vogue in many schools It has now crept into even colleges with the medium of instruction changed to moth tongue at the undergraduate level. In the teaching of foreign language the translation method poses a number of problems. In this method, the teacher lectures to his students in their regional languages and the target language is rarely used by him. The student has to depend on a few examples written by the teacher on the blackboard and has practically no opportunity to hear the sentences spoken in the target language. Here the teacher aims at competence rather than performance.

In a commercial method such as Berlitz (in Germany) the teacher communicates with students in the target language from the very beginning. The student is suddenly exposed to all the complexities of the ta4get language Drills and explanations are avoided and the student is made to hear and imitate an entire range of the sentence patterns of the language. Here it is the performance rather than competence that is aimed at. A teacher of the linguistic method should avoid the two extremes. He should aim at both competence and performance. He should guide the student carefully through the graded stages starting with the simplest, offering explanations and, at the same time, rigorous practice.

Creativity

In language, as in sciences, it is not the mere transference of knowledge that should be aimed at. The emphasis should be on the

creative side of the learning process. With the coming of pedagogic generative grammars the emphasis has shifted from the analysis of sentences already spoken to determining the potential sentences already spoken to determining the potential sentences. The student, instead of imitating utterances, should be able to produce new sentences. He should be something of more than a parrot in the learning process.

Mother Tongue

Learning a foreign language should not be at the cost of mother tongue. The foreign languages, however, useful they may be, cannot possess for the learner the intimate emotional significance of mother-tongue. Those who master a foreign language at the cost of their tongue may grow intellectually educated but remain exceptionally sterile.

What and How Much

In the earlier stages the emphasis should be laid on the general aspects of the language. The student should be enabled general aspects of the language. The student should be enabled to understand, speak and write. He should get the ability to communicate in general way. But later, say at the university level, he should be guided in his special register. A student of science should learn scientific English and a student of commerce should learn commercial English. The courses at this stage should be more advanced than those designed for school level students.

Purpose of Teaching L2

Before designing a course one should ascertain the student's scholastic background as a course which is suitable in one case may prove unsuitable in another. Students are of different categories: those who want a thorough knowledge, those who are just concerned with the spoken language, and those who require only a superficial knowledge. Students with common aims should, therefore, be grouped together and separate courses should be designed for them.

One should know the purpose for which L2 is taught. In many English speaking countries, English may be taught as a cultural subject but in countries like Thailand, Laos, Kampuchea, Myanmar, English has to be taught as a second language or as a foreign language.

Selection and Restriction

The whole of English is neither teachable nor appropriate for teaching, There are two points to be remembered here: First, the restriction of the language to a particular register and secondly, the selection from within the register of the items that are to be taught, according to criteria such as frequency of occurrence, responsibility (availability), teachability, and classroom needs. In the process, phonology, grammar, lexis and semantics have to be given their due place. Language has become so diversified that stress has to be laid on its functional aspects. Scientists, pilots, businessmen, mechanics and others

require different language skills and it is no use teaching all of them the same register.

Oral Drills

During the first two or three years of the course oral drills are to be conducted, and during the first few weeks the teacher must do all the talking while the students listen and later at Students must be made to do most of the talking.

The child learns its mother tongue, as one can observe, through the hearing of the spoken word. So it seems right and natural that the first approach to a foreign language should be oral. Students should hear the language for a short time before they attempt to speak, read or write.

Criteria for Selection

(i) Frequency

The samples of materials one is likely to read or learn are taken and the items that occur most often are counted. The ones which occur most frequently are to be selected. By learning these frequency items one can improve one's fluency. Frequency is a statistical indication of the usefulness of words, but it has certain limitations such as lack of stability and therefore one has to take range and availability also into account.

(ii) Range

A word that is found at many places is more important than the one that can be found frequently at one place. The number of samples in which a word s found is its range. The greater the range of an item, the more important is its frequency. The items of widest range are generally structure words, certain types of adverbs, adjectives, verbs, abstract nouns, and these are of greater importance. In advanced composition connectives play the most important role.

(iii) Availability

A word like blackboard has no significance frequency, but it is necessary word in the classroom and, therefore, it needs to be included in the classroom vocabulary.

The result of a frequency count depends on the register of the sample. Items like atoms, mass, electrons have a higher frequency in the physics register but not in the other registers. Words like porter, time, cloak room, ticket, compartment, luggage etc. have a higher frequency at the railway station but words like stamps, post, letter, parcels, fill in, have a greater frequency at a post office. Words like tip, bill, menu, fork, cutlery, salt, napkin, bearers have a greater frequency at a restaurant.

Gradation

The lessons have to be graded, from the simpler to the more difficult as otherwise the student's progress may become slowed and he

may forget whatever he has already learnt. His progress will naturally depend on the manner in which his courses have been graded. Vocabulary may be arranged in such a manner that more useful words are learnt before the less useful. In an ideally graded course a student assimilates a small but useful vocabulary quite thoroughly.

It should be kept in mind that understanding is easier than writing or speaking. The learner picks up understanding first and, therefore, there should not be in the beginning, too much demand laid on the productive faculties. Only the essentials of grammar and not derails should be introduced.

Stages of Learning

There are five stages in learning each aspect of the language i.e. each grammatical pattern, each vocabulary group, and each set of sounds. They are: *(i) Recognition, (ii) Imitation, (iii) Repetition, (iv)Variation, (v) Selection.*

(i) Recognition

The student should be enabled to distinguish one word from another. He should be made to see that live and leave are two different words and He eats rice is different from He is eating rice by suitable drills involving such pairs of words the student can be led to this stage.

(ii) Imitation

At this stage the student should be trained to produce the utterances he is learning. Instead of single words, he should be given words in context or sentence: 'This is pen,' 'this is water' etc. In such drills the student learns incidentally that sentences should be preferable from a dialogue representing a natural context like the conversation between a shopkeeper and his customer.

(iii) Repetition

Repetition drills are meant to relieve the student's mind of the burden for consciously controlling all the details of the sentence. Mimicry and memorization should be continued till the student can articulate and produce sentences with ease.

(iv) Variation

The student must learn to vary the patterns he has learned. The teacher conducts three kinds of variation drill: (a) situation drill, (b) transformational drill, (c) combinatory drill.

(a) Situation Drill. In a situation drill, the student may be asked to substitute new vocabulary 9one word at a time). In a more advanced drill of this sort the teacher asks the student to substitute a plural noun or verb for a singular noun or verb and see that there is mutual agreement

between the verb and see that there is mutual agreement between the verb and the subject.

(b) Transformational Drill. A transformational drill is just the opposite of a substitution drill. Holding the vocabulary constant the student changes the sentence from one pattern to another, i. e. from the declarative to the interrogative and so on: 'He drank coconut juice '-'Did he drink coconut juice?' etc.

(c) Combinatory Drill. In this drill the student is given two sentences and asked to combine them into a more complex pattern. The easiest of these drills is the one involving simple conjunction. e.g. 'We went to the theatre. We saw a movie.' -'We went to the theatre and saw a movie.' A more advanced drill would lead to 'We went to the theatre to see a movie.

(v) Selection

When the student can correctly and promptly produce sentence patterns he should know when to use them. He should know the social implications of different expressions, i.e. in which contexts he should use formal or informal language.

For reading and writing, it is better if they are delayed till the student has gained some proficiency in the spoken language. In acquiring reading and writing skills also the same five stages should be followed. Of the three skills: speech, reading, writing-reading is the easiest for any student. Being a receptive ability it is picked up more quickly. Writing is the most exacting ability and it requires comparatively a ling course. In the case of speech, frequency of lessons is more essential than the length of course as speech habits require intensive practice.

Coverage

The coverage for an item is the number of things one can say with it. A word with wider coverage may be made to replace one of narrow coverage thus:

By inclusion : Seat can replace chair, bench, stool etc.
By extension: Tributary can be replaced by branch
By combination : Newspaperman can replace journalist, handbook can replace manual
By definition : Breakfast can be stated as morning meal, and pony as small horse

Visual Aids

Visual aids are divided into such groups as wall charts, book illustrations, 'realia' models, puppets, maps, filmstrips, television, tapes etc. But anything which can be seen while the language is spoken may be visual aid. Boys, girls, plays, pets, clothes, furniture, laughing, crying, gymnasium can also form visual aids.

Formulaic Expressions

The following expressions are useful in speech:

1. How do you do?
2. Why get so upset? Why talk so much (No auxiliary)
   Why not enjoy yourself? Why not forget it?
3. What about the College? (No verb)
   What about the car?
   How about singing?
4. Off with the lid! (No verb)
   Out with it!
   Down with him!
5. If only I had listened to my parents! (Exclamations)
   To think I was once a millionaire!
   Oh for a drink! Oh to be free! (Jocular)
   You and your English!
   Now for some fun!
6. How goes it? May the best man win! May you be happy.
7. Easy come, easy go.
8. *Greetings*: Good morning/evening, Hello; Hi.
9. *Farewells*: Goodbye; Cheerio; Cheers; See you; Bye; So long.
10. *Introductions*: How do you do? How are you? Glad to meet you.
11. *Reaction*: Assent, Agreement: Yes, Yeah; All right; OK;
12. *Certainty*: Absolutely, Right
13. *Denial*: No; Certainly/Definitely not; Not likely.
14. *Thanks:* Thank you; Thanks (very much); Many thanks; Ta
15. *Toasts:* Good health;Your health; Cheers; Here's to you /your/...
16. *Seasonal*: Merry Christmas; Happy New Year; Happy Birthday; Many happy returns (of your birthday)
17. *Slogans*: Down with /Up with
18. *Alarm Calls*: Help! Fire! Stop the thief!
19. *Warnings*: (Be) Careful; Watch out/it; Lookout!
20. Apologies: (I'm) Sorry; (I beg your) pardon.
21. *Imprecations:* Graded-Blast (you it); Oh hell! Damn (you/it)
    Go to hell ! (Obscenities are also used)
22. *Expletives*: Graded-My! Gosh! (By) Golly! (Good) Heavens! (Good) God! Good Lord! Christ Almighty!
23. *Exclamations*: Goal ! Excellent! You lucky girl/boy/sod! Well, well! Oh dear! (What a) pity! Poor-; Silly boy!
24. *Interjections* Oh/Ah/Oho/Wow/Yipee/ha/Ouch/Ow/Ugh/ooh/tut-tut/alas/Uh-huh/Mm/Hey/Eh

Errors

We should not be fussy over the mistakes committed by the learner. His mistakes provide the teacher with information regarding where the student needs improvement. This will serve as a feedback.

Exposure

Question: Should the student be exposed to advanced language? Yes, the second language learner as in the case of those who learn their mother tongue might profit from listening to language which is slightly more difficult than the one he can produce himself.

Presentation of the Language Abilities

It is difficult to confine oneself only to giving oral exercises in a large class of young students. The class with too many oral exercises might become restive and exhausted. Although the approach in the beginning should be oral it is necessary to introduce soon the written symbols of the language by wall charts, blackboard etc. The teacher should not expect complete sentences from the students. When he introduces them in the written language the lessons should be of known words written on the blackboard in script letters. The students should copy them. The spoken symbols may also be written thus:

This is a book. This is a chair.

Situational Presentation

The teacher has to find an appropriate situation to teach an aspect-tense, verb etc. Suppose he wishes to teach the use of opening he should repeat it in a number of different situations:

I am opening this box/door/letter
He is opening this packet/bag, etc.

With close the exercise can be repeated:
I am closing this packet/cupboard
She is closing this box/door

In all these, what is to be repeated is the basic structure and not the same sentence over and again. Sentence-repetition would create monotony and boredom.

In contrast with the progressive tense the present perfect can be introduced thus:

I am opening this packet/box/door
I am closing this bag/door
I have opened this packet/box/door
I have closed this book/window/cupboard

The exercise can be designed with other lexical and grammatical items like:

I am putting this book on the table.
You are taking my bag off the chair, etc.

The teacher can practically demonstrate herself or use a picture while teaching verbs and tenses. He/She can show a bow walking or running in a picture and say: 'Here he is walking', 'Here he is running'. He/She can show a wall picture 'The Beach' and instruct them thus:

Teacher: What are the children doing?
Student A: They are playing.
Teacher: Is this girl crying?
Student B: Yes, she is.
Teacher: Are the boys swimming?
Student C: They aren't.
Teacher: Is this boy building a house?
Student D: Yes, he is.

Now the teacher can vary the practice by making the students ask the questions and herself answer them.

Children are active little people and they should not be forced to sit still and make to feel uncomfortable. The teacher should invent all kinds of actions for them to perform with the objects, pictures and charts. One group of Students can draw figures of animals and objects and another group can use a box and find out the contents. Yet another group can use a dummy watch and learn to read time and expressions like 'wind' 'half-past...' and so on. With students of science she can make her teaching science-oriented. She can carry on a make-believe experiment and describe it thus:

"I am going to put the copper sulphate solution in the test tube. I have put the copper sulphate solution in the test tube. Now I am going to heat the test tube. What is happening inside the test tube? There is change of color etc..." The experiment should not be real as that would drive the attention of the students to the scientific phenomenon. Their attention should be repeatedly drawn to the language and expression.

Teaching Writing Ability

Writing is much more a slower process than either speaking or reading. Free composition has ho place in the Student's first few years. He should not be asked to write anything that he does not already know through speech and reading. The first kind of writing is copying or transcription. The second kind of exercise is dictation but this should not be introduced too early. Dictation which results in mistakes is harmful. The third of writing exercise is the writing exercise is the writing of sentences on a given pattern. In a sentence like:

He enjoyed himself a great deal.

The words can be replaced by new words as in the following:

She enjoyed herself a great deal.
They admired themselves too much.
He hurt himself badly.

The fourth kind of exercise (suggested by Widdowson) is to provide an incomplete dialogue for completing it:

A: Hello Wannee, how are you?
B:
A: Fine.
B:
A: They're fine to. My wife hasn't been too well though.
B:
A: No, nothing serious. A touch of 'flu", I think. How's your wife.
B:
A: Really? Congratulations. It'll be your second, won't it?
B:
A: Third, eh! Well, I'm very pleased for your sake. This calls for a celebration. What will you have?

Instruction at the University Level

When the student comes to the university or college level he might have improved his competence but he would be generally lacking in performance. There is no point in teaching remedial English at the university level with a speeded up version of the secondary school syllabus. The student would generally reflect any such course. The class would become rapidly bored and resentful. While designing courses at this level the teacher has to keep in mind the needs of the grown-up and advanced students.

Paragraph Development and Rhetoric

A thorough knowledge of rhetorical devices such as coherence, continuity, consistency and unity is absolutely necessary for any one who wants to write well. These elements of rhetoric are necessary both in sentence construction and paragraph construction. In sentence construction the student should have repeated practice in the use of linking expressions. If precise exercises help understanding or comprehension, amplification exercises help one's writing skill. The student should, therefore, know how to construct loose and periodic structures, parallel structures, subordinate and co-ordinate ranks. He should know the use of antithesis, climax etc.

The student may be given groups of sentences and asked to join these groups into two or three longer sentences.

Metaphorical Sense

Above all the student should be encouraged to cultivate a metaphorical sense. Metaphorical expressions cry a more vivid and lively

effects than bare colorless paraphrased expressions: e.g., apple-cheeks, petal-soft, abrasive tension, synchopated individuals, ripe age, carry more effect than their paraphrased counterparts.

Formal and Informal Styles

The formal tone one finds in weather forecasting should not be used in conversation with friends (or even with foes). At the same time informal tone does not find favor with people in seminars, conferences, learned discussions or court proceedings.

CHAPTER THREE

Second-Foreign Language Acquisition Theories

The Dilemma of Teacher Education in Second Language Teaching

To prepare effective language teachers, it is necessary to have a theory of effective language teaching - a statement of the general principles that account for effective teaching, including a specification of the key variables in effective language teaching and how they are interrelated. Such a theory is arrived at through the study of the teaching process itself. This theory should form the basis for the principles and content of second language teacher education, which is thus dependent upon the following sequence: (a) describe effective language teaching processes; (b) develop a theory of the nature of effective language teaching; and (c) develop principles for the preparation of language teacher.

There are, in fact, two approaches to the study of teaching from which theories of teaching as well as principles for teacher preparation programs can be developed. The first, a *micro approach* to the study of teaching, is an analytical approach that looks at teaching in terms of its directly observable characteristics. It involves looking at what the teacher *does* in the classroom. The second, a *macro approach,* is holistic (Britten 1985a, b) and involves making generalizations and inferences that go beyond what can be observed directly in the way of quantifiable classroom processes. Both approaches can be used to develop theories of effective teaching and to derive principles for teacher education. However, they lead in different directions and this is the dilemma of teacher education.

Motives for the Study of Modern Languages

a. Knowledge of modern language is one of the accomplishments of a cultivated man.
b. Modern languages are perpetuated in linguistic islands or linguistic colonies within another speech area.
c. There is a necessity of creating a political fusion or a homogeneous social unit.
d. Trade and colonization constitute a fourth motive: If you want to do business with people, you can do it best in their language.
e Scientific and technical necessity furnishes us with the final motive for the study of foreign languages.

(Albert H. Marckwardt, **Motives for the Study of Modern Languages,** Language Learning, Vol.38 No.2, June 1988)

Why Do We Need a Foreign Language?

a. A foreign language is a credential just as a degree in engineering is - it's worth something on your resume.

b. Knowing another language allows you to operate in a bigger world than the one defined by your native language, especially in the era of information superhighways.
c. Your foreign contacts (diplomatic, political, and commercial) will be favorably impressed by your seriousness of purpose in understanding their contacts and dealing with them.
d. A foreign language opens the door to a foreign culture. It will open your eyes to the outside world.
e. When you learn a foreign language, you learn a lot more about your own language
f. You can expand the horizon of your brain functions to cover more areas of knowledge.

Second Language Acquisition Theories and Teaching Practice: A Critical Review

Here is a sketchy account of some currently prevalent theories which try to explain how second or foreign languages are learned. McLaughlin mentions five of those theories: Interlanguage Theory, Linguistic Universals Theory, Acculturation/Pidginization Theory, Cognitive Theory, and Krashen's Monitor Model. Ellis adds some more: Accommodation Theory, Discourse Theory, The Variable Competence Model, and the Neurofunctional Theory.

Generally, language acquisition theories fall into five general categories: 1) those attempting a behavioristic explanation, emphasizing the role of conditioning; 2) those attempting an interactionist explanation, emphasizing communicative/social need, purpose, and setting:3) those attempting a cognitive explanation, emphasizing logical, intellectual processes; 4) those attempting a nativist or biological explanation, emphasizing innate, genetic abilities; and 5) those emphasizing the learner and learning strategies. Because of time constraints, I will restrict myself to reviewing the following seven theoretical models which I believe most relevant to FL educators: 1) Acculturation/ Pidginization Theory; 2) Linguistic Universals Theory; 3) Interlanguage Theory; 4) Discourse Theory; 5) Cognitive Theory; 6) the Monitor Model; and 7) Cooperative Learning Theory.

1 Acculturation/Pidginization Theory

The Acculturation/Pidginization Theory advanced, among others, by Schumann, holds that second language acquisition is part of an acculturation process and that the degree of language proficiency is determined by the degree to which a learner acculturates to the target language (TL) group.

This acculturation process is affected by the social and psychological "distance" between the home and the foreign cultures. These social and psychological variables determine the effort language

learners will make to come into contact with speakers of the TL and the degree to which they are open to the input they receive. Some of the factors which, according to Schumann, are believed to be conducive to positive social distance are the perceived social similarity between the L1 culture L2 groups, the similarity between the native and TL cultures, low cohesiveness by the "outsiders" as a cultures group within the TL culture (i.e., easy integration and assimilation into the TL culture), positive attitudes toward each other, and an expectation by the L2 learner to stay in the TL area for an extended period.

Positive psychological distance is established if learners encounter neither language nor culture shock nor culture stress and if they bring high motivation and ego permeability to the task.

Acculturation Theory suggests that when social and psychological distance is great. i.e., when attitudes toward the TL and its speakers are negatively loaded and integrative motivation is lacking, learners will have difficulties progressing beyond the early stages in language development, and the language will stay pidginized or will fossilize in reduced and simplified forms).

We can quite clearly see that Acculturation accounts mainly for naturalistic L2 acquisition. However, we need to keep in mind the importance of attitudes and motivation in the L2 acquisition process, which might play a similar role in classroom foreign language learning. So, it is difficult to reject the notion that affective factors determine the effort a student makes in and out of the classroom to obtain input and to use the language for communicative purposes.

2. Linguistic Universals Theory

Through investigating surface features of human languages, linguists are continuing to discover general sets of principles that apply to all languages. The theory of Linguistic Universals, or Universal Grammar Theory, tries to explain language acquisition (L1 and L2) by hypothesizing a shared, innate, biological, linguistic component in the genetic make-up of human beings which accounts for these universally shared linguistic features. Universal Grammar Theory holds "that the child starts with all the principles of Universal Grammar available" and that "the right environmental input at the right time furthers the acquisition process" (pp. 93, 94). The theory posits that University Grammar becomes operative in L1 as well as in that for adults. While originally it was believed that this "mental language organ," or language acquisition device (LAD), atrophies with the onset of puberty, a number of studies indicate no qualitative differences between the adult and the child learner, except in pronunciation ability. In fact, adults - because of increased channel capacity due to maturational factors-might be the more efficient foreign language learners, particularly if exposure time and input are limited to that of a traditional language course. In a totally

naturalistic setting the child continues to be superior, not because of a better functioning LAD, but, it is now believed, because of differences in quantity and quality in the available input.

What is of interest to us is that Linguistic Universals Theory posits an inherent hierarchy of difficulty among the universal "rules" which depend on the "degree of markedness" or complexity, of a certain structure. It is believed that those structures which fall under the universal core grammar are less marked and more easily acquired than the structures idiosyncratic to a particular language (also called peripheral grammar).The more highly marked structures would need to occur much more frequently in the input of the learner than the less marked ones to assure their acquisition.

If in fact, all natural languages are constrained by universal principles inherent in our genetic make-up, and if these principles can be arranged in a certain "accessibility hierarchy," it follows that first and second languages, examining the interlanguages, i.e. the language output at a particular stage of linguistic development, of various learners in naturalistic as well as in classroom learning situations. While error analyzes indicate that interlanguages are influenced by a number of factors, studies have shown a tendency for some errors to occur at particular stages of acquisition, regardless of the learner's mother tongue or age or the way the language was acquired. In other words, the types of errors made by L2 as well as FL learners are constrained by their universal grammar (14: p.98). Here is where Universal Grammar Theory interfaces with Interlanguage Theory.

3. Interlanguage Theory

Selinker defines interlanguage as a separate linguistic system, constructed by the learner as the result of five central cognitive processes: 1) language transfer from the mother tongue; 2) transfer of training, resulting from special features of instruction; 3) second language learning strategies; 4) second language communication strategies; and 5) overgeneralization of the rules of the target language. Through error analyzes of speech and writing samples of learners at various stages, researchers have found that interlanguages reflect systematic patterns of error and communication strategies...Many of these errors are developmental and will eventually disappear if the learner receives sufficient appropriate input.

Interlanguage forms found in early language acquisition can also be found in pidgin languages. The speakers of a pidgin language fossilize at a relatively early stage of interlanguage development because, as it is believed, they receive insufficient input and lack the motivation or need to perfect their language skills since their limited communication needs can be satisfactorily fulfilled without grammatical accuracy. Continued comprehensible input, however, can help learners overcome that stage

and continue to move toward closer approximation of the target language.

So, what are the implications of Interlanguage Theory for FL teaching? As you may understand, *Extended comprehensible input* helps learners shape their output to an increasingly closer approximation of the TL norm. Formal instruction, i.e., Grammar analysis and discrete - point grammar practice, can temporarily improve performance on discrete-point tests, but apparently has relatively little influence on spontaneous language use.

4. Discourse Theory

Discourse theory postulates that learners develop competence in a second language not simply by absorbing input, but by actively participating in communicative interaction, i.e., by negotiating meaning and filling information gaps. Ellis states a main hypothesis of Discourse Theory, which applies to L1 as well as L2 acquisition: "The development of the formal linguistic devices for realizing basic language function grows out of the *interpersonal use* to which language is put (p.259).

Like other theories already mentioned, Discourse Theory addressed L2 acquisition in a naturalistic setting. We might nonetheless want to examine the principles advanced by Hatch and summarized by Ellis (pp. 259-60) for implications for foreign language learning:

1) SLA follows a "natural" route in syntactical development. [Hatch believes this "natural" route is determined by the predictable discourse -which, of course, includes predictable input - in which L2 learners engage]
2) Native speakers adjust their speech in order to negotiate meaning with nonnative speakers; intuitively they speak more slowly, louder, use shorter: sentences and less complex structures.
3) The conversational strategies used to negotiate meaning, and the resulting adjusted input, influence the rate and route of SLA in a number of ways.

    a) The learner learns the grammar of the L2 in the same order as the frequency order of the various features in the input, i.e., the learner masters first those structures to which or she is exposed most frequently;
    b) The learner acquires commonly occurring formulas and then *later* analyzes these into their component parts:
    c) The learner is helped to construct sentences vertically, i.e., by borrowing parts of speech of preceding discourse, also known as "scaffolding". . . .

5. Cognitive Theory

Instead of stressing innate, universal linguistic processes, affective factors, input, or interaction as causative factors for second language development, Cognitive Theory sees second language learning as a mental process, leading through structured practice of various component subskills to automatization and integration of linguistic patterns. While Discourse Theory posits that language is available for analysis *after* it has been acquired or routinized, Cognitive Theory maintains that skills become automatic or routinized only *after* analytical processes. Controlled analytical processes - including, of course, structured practice - are seen as "stepping stones" for automatic processes.

Rather than positing a hierarchical development of linguistic structures, such as suggested by Interlanguage Theory, Cognitive Theory posits a hierarchy of complexity of cognitive subskills which lead from controlled practice to automatic processing of language. As the learner develops increasing degrees of mastery, he or she engages in a constant process of restructuring to integrate new structures with those previously learned. Cognitive learning thus is seen to consist of several different phases where the learning tasks become refined, restructured, and consolidated.

The notion that analysis and structured practice foster automatic processing of language and are essential to foreign language development in a classroom setting is not new. Increasingly, however, researchers question whether L2 acquisition is a skill-similar to driving a car or playing the piano-that can be mastered exclusively through controlled operations of subskills which lead eventually to their automatic processing, i.e., to spontaneous communicative language use. Cognitive Theory with a sprinkling of Discourse Theory and behaviorist conditioning-seems to account most closely for what foreign language teachers and current textbooks try to accomplish in classroom instruction. The prevalent grammatical syllabus does try to lead students through analysis and explanation (controlled processing) to automatic processing through - albeit limited - practice. One important tenet of Cognitive Theory, however, is not sufficiently reflected in teaching pratice or in textbooks. Cognitive Theory posits a constant and continuing restructuring and integrating through various recurrent phases like most other theories which try to account for L2 acquisition. Cognitive Theory recognizes a certain spiral or cyclical development of language skills, where the interim language of the student permits continuing refinement and closer approximation to the TL. In current FL classroom teaching and testing practice, we do not sufficiently recognize and further that cyclical refinement with continuing input and practice. Our expectations of immediate accuracy and mastery are not supported by the tenets of any theory.

6. The Monitor Model

The most ambitious and widely known-as well as presently the most controversial - theory which attempts to account for L2 and FL acquisition is Krashen's Monitor Model. This theory is also the only one from which direct pedagogical extrapolations have been made in the so called Natural Approach. Since the Monitor Model has received extensive attention, both laudatory and critical, in the professional literature, I would like to just provide a brief summary of its five main tenets.

Krashen's Acquisition/ Learning Hypothesis maintains that adult or adolescent language learners have two processes at their disposal to help them in developing language fluency. One is acquisition, the other, learning. Acquisition is subconscious and takes place through natural language interactions, similar to those available to children when they acquire their mother tongue. Learning, on the other hand, requires conscious thought and analysis and takes place predominantly in formal instruction. According to Krashen, only language that has been acquired is available for use in spontaneous communication.

The Natural Order Hypothesis, inspired by Universal Grammar and Interlanguage Theory, maintains that we acquire grammatical structures in a predictable order not determined by the order in which they are taught.

The Input Hypothesis, in Krashen's words, refers to his belief that "humans acquire language in only one way -by understanding messages, or by receiving 'comprehensible input' . . ." Two corollaries of the Input Hypothesis state:

1) Speaking is a result of acquisition and not its cause. Speech cannot be taught directly but "emerges" on its own as a result of building competence via comprehensible input.

2) If input is understood, and there is enough of it, the necessary grammar is enough of it, the necessary grammar is automatically provided. The language teacher need not attempt deliberately to teach the next structure along the natural order it will be provided in just the right quantities and automatically revised if the student receives a sufficient amount of comprehensible input.

The Monitor Hypothesis holds that formal learning has no effect on acquisition except that it can serve as a monitor or editor for the learner's output provided 1) there is sufficient time: 2) the focus of the interaction is on form rather than meaning: and 3) the learner knows the rule in question.

The Affective Filter Hypothesis posits a mental screen between the learner and the environment which is activated by affective factors such as anxiety, self-confidence, etc. and which controls the amount of input a

student is exposed to and the amount of input a student converts into intake. A high affective filter promotes it. In Krashen's words (12 : p. 33): ". . . comprehensible input and the strength of the filter are the true *causes* of second language acquisition"

Krashen's Monitor Model has been criticized on a number of points. Of major interest to us are the criticisms levied against his acquisition learning dichotomy and his view of comprehensible input as sole explanatory factor for second language acquisition. Obviously, we can all attest from personal experience that skills which at one time were learned consciously through segmentation and analysis can eventually become automatic through practice and be available automatic through practice and be available for spontaneous use. To what extent this conscious analysis is "necessary" or helpful for foreign language learning when sufficient and appropriate comprehensible input is *not* available remains a major problem.

7. Cooperative Learning Model

Cooperative learning is one of the most useful organizational ideas recently advanced for changing the educational process, engaging the minds of students, and connecting schooling to the world of work. While collaboration in the classroom is not new, it has only recently gained serious attention from educational researchers.

The basic concept revolves around teacher organized active small group learning environments. Students cluster together, discuss topics and learn to take charge of their learning. Team spirit, rather than individual rivalry, is stressed as students learn to work together to accomplish a learning goal and their team is held responsible for each group member's learning. The students, objective is not only complete a task, but to learn something as a team. The success of one student aids others.

Recent research suggests cooperative groups produce more and better ideas than students working alone. Cooperative discussion has proven that it can increase retention and improve the problem solving ability of all students. Discussion aids learning as peers encourage each other. Not surprisingly, one of the clearest findings, is that cooperative learning improves social relations among students (Slavin, 1989).

Blueprints for collaborative knowledge building include strategies for connecting thinking to collaborative groups. Students learn how to jointly search out information on questions generated by individuals or the group. They learn techniques for analyzing, interpreting, negotiating and communicating their information as a team. Instead of the traditional emphasis on competitive individual performance students are encouraged to pool their talents of help each other learn, and come up with group products.

From Theory to Practice

Language acquisition- be it first, second, or foreign - is an extreme complex process, particularly difficult to penetrate since it cannot be directly observed. None of the theories discussed above offers a complete and coherent explanation. Most attempt to explain how a second language is learned by examining only one of the many contributing factors. Eventually, a more complete theory of L2 acquisition will have to account for biological/innate, the social/interactive, the cognitive, and the behaviorist aspects of language learning. In addition, a sound pedagogy will have to keep in mind the mass possible individual learner factors which inhibit second language development in a classroom setting.

Few psycholinguists, however, venture into the pedagogical implications of current theories. Unfortunately or fortunately, those of us who are FL teachers do not have the luxury of waiting around for the definitive theory and its verification by research before deciding on what to do in the classroom. So, let me attempt to find some pedagogical implications in the theories just discussed.

Extrapolating from naturalistic child language acquisition to adult or adolescent, foreign language learning in a classroom is difficult because major differences exist between these modes: differences in the psychological, and intellectual maturity between both groups of learners, in situations and settings in which interaction occurs, in the type and amount of input available, in the types of communicative acts that occur and their underlying purposes in available language-use opportunities, in personal motivation to avail oneself of such opportunities, etc. As a practical example, input and interaction opportunities available in the classroom differ from those encountered on the playground. And a Thai student hoping to study in Australia is likely to make a greater effort finding target language texts and speakers to interact with than the Australian student who is taking Thai to fulfill a language requirement. Obviously, naturalistic language learning takes place one-on-one classroom learning, one on many. And because of the nature of learning, in general, which proceeds on a highly individualistic basis, students are frequently at different levels of language development, even though they are in the same class. Then what are some common tenets, shared by the theories discussed, which do have implications for teaching?

When we consider the currently rather inconclusive state of L2 acquisition theory and research, input and interaction clearly play a major role in language learning, in and outside the classroom. Motivation also clearly affects both the amount of input students seek and the number of communicative interactions in which they are willing to engage.

Evaluation

For the last few decades, FL learning has gained increasing attention. The Scholarly and research activities abound: in fact, L2/FL

acquisition and teaching are emerging as separate fields of inquiry, interdisciplinary in nature, at a number of institutions.

As we English teachers examine and revise our curricula in response to this renewed interest and try to fulfill a national mandate to develop usable language skills in our students, we can all benefit by critically examining the implicit and explicit assumptions which guide our teaching in light of recent theoretical and research developments. Based on the present state of L2 acquisition theory and research, I would like to recommend that our curriculum planning and teaching activities be guided by three basic questions:

1) How can we supply students with the optimum amount of interesting, comprehensible input?
2) What can we do to provide students with opportunities to interact in the language in real communicative contexts and with real communicative purposes?
3) What can we do to increase students' motivation so that they are willing to seek additional input and interactive opportunities and continue their efforts beyond the classroom instruction which we in Thailand considers inadequate for becoming communicative in another language?

In conclusion here, we can conclude that satisfactory responses to these questions will improve our success rate in teaching. In other words, student motivation, language in put, and communicative interaction may well be the most important factors in FL learning and may, in my final analysis, decide our students' level of language proficiency.

Important and Necessary Conditions for Second Language Learning

Following are some of the important and necessary conditions for second language learning which Thai teachers can selectively apply both in and outside the classroom for a better and more effective teaching. Those marked ***** are the most important and worth discussing here.

Condition 1*****
Language as System condition (necessary): A second language learner's knowledge of a second language forms a systematic whole.
Condition 2
Native speaker Target condition (typical, graded): Second language Learner language aims to approximate native speaker language.
Condition 3
Productive/Receptive Skills condition (necessary, graded): Individual language learners vary in their productive and receptive skills.
Condition 4
Implicit Knowledge condition (typical, graded): Language knowledge analyzed and so available for recombination, may be intuitive and so not be consciously available to the learner.

Condition 5
Explicit Knowledge condition (typical, graded): Analyzed language knowledge may be consciously available to the speaker who is able to state a rule or explain the reason for a decision to use a certain form.
Condition 6
Communicative Goal condition (typical, graded): Language learners may aim to achieve various degrees of control of a language for communicative proposes.
Condition 7
Integrated Function condition (necessary): Knowledge of a language involves control of one or more integrated functional skills.
Condition 8*****
Human Learner condition (necessary, postulate): A general theory of second language learning deals with the learning of a second or later language by a human being who has already learned a first language.
Condition 9*****
Physiological Normality condition (necessary): Any physiological or biological limitations that block the learning of a first language will similarly block the learning of a second language.
Condition 10
Native Pronunciation condition (typical, graded): The younger one starts to learn a second language, the better chance one bas to develop a native-like pronunciation.
Condition 11*****
Child's Openness condition (typical, graded): The greater openness to external influence of a child favors the learning of a second language in informal situations.
Condition 12
Child's Dependence condition (typical, graded): The social situation faced by a child in a second language environment favors second language learning.
Condition 13
Sound Discrimination condition (necessary, graded): The better a learner can discriminate between the sounds of the language and recognize the constituent parts, the more successful his or and learning of speaking and understanding a second language will be.
Condition 14*****
Memory condition (necessary, graded) In learning a new language, the better the learner's memory, the faster be or she will learn new items and the larger his or her vocabulary will be. This ability may vary for learning works aurally and visually.
Condition 15
Grammatical Sensitivity condition (necessary, graded): Beyond the necessary minimum ability to derive a grammar implicitly, the better a learner's ability to recognize constituents and develop or understand generalizations about recombination and meaning (whether from explicit or implicit generalizations, in whatever forms), the faster be or she will

develop control of the grammatical (and pragmatic) structure of a second language.

Condition 16***

Learning Style Preference condition (typical, graded): Learners vary (both individually and according to such characteristics as age, level, and cultural origin) in their preference for learning style (visual, auditory, kinesthetic, and tactile) and mode (group or individual): as a result, learning is best when the learning opportunity matches the learner's preference.

Condition 17

Language Distance condition (necessary, graded): The closer two languages are to each other genetically and typologically, the quicker a speaker of one will learn the other.

Condition 18

Shared Feature condition (necessary, graded): When two languages share a feature, learning is facilitated.

Condition 19

Contrastive Feature condition (necessary, graded): Differences between two languages interfere when speakers of one set out to learn the other.

Condition 20

Markedness Differential condition (necessary, graded): Marked features are more difficult to learn than unmarked.

Condition 21

Shared Parameter condition (necessary): When both native and target language have the same setting for some parameter of Universal Grammar (=have the same rule), minimal experience will be needed to trigger the correct form of the grammar.

Condition 22

Number of Speakers condition (typical, graded): The number of people who speak a language as a first or second language influences the desire of others to learn it.

Condition 23

Standard Language condition (necessary): Formal teaching situations are possible only with standardized languages.

Condition 24

Vitality condition (necessary): Informal learning situations are possible only with languages with vitality.

Condition 25

Aptitude condition (typical, graded): The greater a learner's aptitude, the faster he or she will learn all parts of the second language.

Condition 26***

Exposure condition (necessary, graded): The more time spent learning any aspect of a second language, the more will be learned.

Condition 27***

Motivation condition (typical, graded): The more motivation a learner has, the more time he or she will spend learning an aspect of second language.

Condition 28
Attitude condition (typical, graded): A learner's attitudes affect the development of motivation.
Condition 29
Instrumental Language Learning or Teaching condition (typical, graded): If you need to speak to someone who does not know your language, you can learn that person's language or help that person to learn your language.
Condition 30
Opportunity for Analysis condition (necessary, graded): Learning a language involves an opportunity to analyze it, consciously or unconsciously, into its constituent parts.
Condition 31
Opportunity for Synthesis condition (necessary, graded): Learning a language involves an opportunity to learn how its constituent parts are recombinable grammatically into larger units.
Condition 32
Opportunity for Contextual Embedding condition (necessary, graded): Learning a language involves an opportunity to learn how its elements are embedded in linguistic and non-linguistic contexts.
Condition 33
Opportunity for Matching condition (necessary, graded): Learning a language involves an opportunity for the learner to match his or her own knowledge with that of native speakers or other targets.
Condition 34
Opportunity for Remembering condition (necessary, graded): Learning a language involves an opportunity for new items to be remembered.
Condition 35
Opportunity for Practice condition (necessary, graded): Learning a language involves an opportunity for the new skills to be practiced; the result is fluency.
Condition 36*****
Communication condition (typical of natural learning, graded): The language is being used for communication.
Condition 37*****
Learning Goal condition (typical of formal learning, graded): The language is being used so that it can be learned.
Condition 38
Fluent Speakers condition (typical of natural learning, graded): Many speakers in the environment are fluent and native.
Condition 39
Open Area condition (typical of natural learning, graded): The learning takes place in the open or in unconstrained areas.
Condition 40
Comprehensible Input condition (typical of natural learning, graded): The learner is expected to understand; therefore the speaker make an effort to see that language is comprehensible.
Condition 41

Drill Input condition (typical of formal learning, graded): The learner is expected to learn; therefore ample practice is given to develop automatic control.

Condition 42***

Foreigner Talk condition (typical, graded): Conditions of speech addressed by native speakers to non-natives (foreigner talk) lead to notification in the structures and frequency of language that form the basis for input in natural learning situations.

Condition 43***

Formal Language Learning-Teaching condition (typical, graded): In formal language learning situations, multiple opportunities to observe and practise the new language can be provided. The more these match other relevant conditions (the learner, the goals, the situation), the more efficient the learning will be.

(The conditions listed above have generally been stated informally. For a more precise statement of 74 conditions, see Schauber and E. Spolsky 1986:22)

Learner Strategies for Learning Autonomy

The term "learner strategies" refers to(1) language learning behaviors learners actually engage in to learn and regulate the learning of a second language; (2) what learners know about the strategies they use, i.e. their strategic knowledge; and finally what learners know about aspects of their language learning other than the strategies they use(Wenden and Rubin, 1987, p. 6-7).

1. *Theoretical Underpinnings and Assumptions*
   a. Some language-learners are more successful than others.
   b. The learning process includes both explicit and implicit knowledge.
   c. Consciousness-raising is not incidental to learning (It is assumed that making learning decisions conscious can lead both poorer and better learners to improve the obtaining, storing, retrieving, and using of information, that is, can lead them to learn better)
   d. Successful strategies can be used to good effect by less effective learners.
   e. Teachers can promote strategy use.
   f. Once trained, students become the best judge of how to approach the learning task.
   g. Self-direction promotes learning both inside and outside the classroom.
   h. Language learning is like other kind of learning (It is best to build on what the student knows, or better still, to help students build on what they know)
   i. The success of learner training in other subjects is applicable to language learning.

j. The "critical" faculty used by all humans in communicating is important in language learning.

2. Typology of Strategies

a. Cognitive Learning Strategies(Clarification, Verification, Guessing, etc.)
b. Metacognitive Learning Strategies(Planning, Monitoring, Evaluating)
c. Communication Strategies (One's linguistic or communicative knowledge to remain in the conversation.
d. Social Strategies(Those activities learners engage in which afford them opportunities to be exposed to and practice their knowledge)

How to Learn a Foreign Language

1. *Misconceptions about Language Studies*
   a. Do I need a good memory? (Not necessary)
   b. Do I need a flair for languages (No, Unreliable)
   c. Aren't I too old for it? (No one is too old to learn)

2. *How to Choose a Language Course*
   a. No royal way (No short-cut): You have to be prepared to put time and energy into any serious pursuit if you wish to reap the benefits.
   b. The swimming pool analogy: Swimming is best learned in the element that it was invented for (in the water!)
   c. The issue of methods: Your brain has to be involved in an expression or exchange of ideas and emotions in a real context and not in a mechanical repetition of words and patterns.
   d. Class sizes and classroom arrangement: Five to twenty students are suitable for a wide variety of classroom activities.
   e. Number of contact hours: A realistic number for a non-intensive course may be somewhere around five or six hours a week, spread over at least two, preferably three or more occasions. Anything more than that can be regarded as an intensive course.
   f. CALL(Computer-Assisted Language Learning) System/Self-Access Center: Role of Technology: This piece of technology allows students to work individually at their own pace and have as much exposure to the language as they wish without a teacher having to participate. Interactive video systems and computer software will play a significant role in the future of language teaching.
   g. Student attitudes-dos and don'ts in the classroom: It is essential that students cooperate with teachers in the classroom. Using a foreign language in the classroom is a game in a certain sense as it would make matters much easier if you all spoke in English.

3. Strategies for Self-Directed Learning

a. Unlearn old habits: Language learning is a unique experience in that it requires you to shelve temporarily your mother tongue and start communicating through another language in which your skills are far less adequate to express your complex thoughts and emotions.
b. Avoid a trap: Action vs. Substitute Action: It is basic human nature to incline towards activities which one is good at, and shun others which may make one feel inadequate.
c. How much time should one spend and on what?
d. How to build vocabulary: Words, words, words! languages have so many words and we need to know them - Do not memorize words off a vocabulary list without hearing them or seeing them in a real context.
e. Identify your weaknesses: It is important that you pinpoint the areas in your language skills that need extra attention and you have priorities attached to working towards certain goals.
f. Raise your consciousness for language learning: You have to like what you do and do what you like. Think positively of what you are pursuing. Keep the goal in sight. Do not lose sight of your dreams.
g. Go it alone. There is no reason why you can't learn a language on your own. It is a heavy undertaking, but a challenging and exciting one. You'll just have to pay extra attention to the problems of keeping up your incentive and getting your hands on good language materials. You'll also need to establish some contact with a native speaker. But when you work on your own, you know exactly why you're doing it. You can push yourself that much harder. You will be your own harshest critic - and that can make the rewards of success all the more satisfying.

In sum, we still have to answer the following two questions: How is a second or foreign language acquired? How can we best use our classroom time to prepare our students to meet their communication needs in their second language? Learner strategy research is a merging together of these theoretical and practical concerns. It provides researchers with another learner characteristic to take into account in the equation of factors they may consider in determining how and with what degree of efficiency a second language is acquired. To practitioners or teachers of English like us, it presents the challenge of applying the insights gained from a systematic examination of learners' perception of their learning. Hence, it is an enterprise whose ultimate aim, i.e., an autonomous and effective language learner, depends on the collaboration of researchers, curriculum experts, material developers, classroom teachers, and learners. Moreover, there have been tremendous strides in defining the strategies which good language learners use and in placing these within a typology. What is needed now is experimentation with the

complex array of strategies that will work best for different kinds of learners and a determination of the best approach for teachers to use in facilitating such strategy use. Finally, we as language teachers have to be aware of the difficulties in applying those western second language acquisition theories to the contexts; we may have to adopt, adapt, delete, or change the strategies completely in order to achieve our goals in teaching English or other second languages to our students in our situations.

CHAPTER FOUR

Linguistics and Language Teaching

Linguistics: the Scientific Study of Language

Linguistics is often called the 'scientific study of language'. This was indeed the title chosen by Professor Lyons when he became Professor of General Linguistics at Edinburgh University for his inaugural lecture in 1964 (Lyons, 1965). The implication of this frequently-used definition of 'linguistics' is that there is, or was, an unscientific study of language. The contrast between scientific linguistics and unscientific linguistics is roughly that between modern and traditional linguistic studies, the traditional studies being regarded as unscientific. Now, this is not the place to go into a discussion of the history of linguistic thought. It is true, however, that linguistic studies were, until recently, subservient to, or in certain respects distorted by, the standards of the other studies with which they were closely associated, or indeed considered part of: logic, philosophy or literary criticism.

Modern linguistics, or structural linguistics, as it is sometimes called, to distinguish it from traditional linguistics, claims to be scientific because its methods and philosophical orientation are those which are generally described in that way. These claims, and the attempt to live up to them, have led to the autonomy of linguistics - specifically, autonomy from logic, philosophy and literary criticism, but not so clearly from psychology and sociology, which had their own problems of asserting their autonomy from philosophy at much the same time as linguistics. Now that the linguist has won his freedom, he is quite happy to collaborate with the philosopher on equal terms in studying those problems they have in common.

The difficulty of establishing the validity of the claim of linguistics to being scientific lies in the fact that the term scientific itself has been subject to various interpretations, not only in the past, but at the present time. There is general agreement that the characteristic of a scientific approach is its objectivity, its logical coherence or rationalism, and the requirement of verification. But these terms themselves are subject to different interpretations. This is clearly not the place to go into a discussion of the philosophy of science, but it is necessary to draw attention to the two main ways that the term 'scientific' has been interpreted, since it is relevant to discussion not only of linguistics but also of the psychological approach to language and consequently, to notions about how language is learned.

One account of the scientific method proposes that its starting point is observation of the data. On the basis of this observation, hypotheses about the nature and regularity of the phenomena under investigation are formed. Using these hypotheses, predictions are made about the

phenomena, which by further, now controlled, observation or experiment, are confirmed of falsified. A hypothesis, con firmed by experiment, becomes a theory about the matter in hand. The reader will recognize the process as one which is called inductive generalization. Indeed, Bloomfield (1935) specifically asserted that, in linguistics, the only 'useful generalizations are inductive generalizations' (p.20). On this view a theory is what is arrived at as the end point of a set of scientific procedures and is determined by the data which were the starting point of the process. The implication of this account is that the scientist starts with an entirely 'open mind' about the whole matter, including presumably an open mind about what data to observe and which aspects of the data selected are relevant and significant, and which are not. The difficulty is that, in order to decide what data are relevant and what to look for in the data, you have to have some preconception about what. You are looking for. In the case of linguistics, for example, some preconceived notion of what language is, and what are or are not linguistic data. As we have seen, this is not as simple as it might appear at first sight. Inasmuch as you select some data and reject other data, or accept one sort of regularity and reject another, you are applying some sort of theory about the subject. In other words, data are not given at all, but taken. The act of selection is the result of a theory about the subject, however informal, vague and ill-formulated this may be. This notion was well expressed by de Saussure:

> Far from being the object that antedates the viewpoint, it would seem that it is the viewpoint which creates the object. Besides, nothing tells us in advance that one way of considering the fact in question takes precedence over the others of is in any way superior to them (de Saussure, 1961, p.8)

Or, as Allen (1966, p. 16) says:

> Linguistics is a creative not an observational activity; it creates its elements out of the continuum of human speech; it does not observe units unfolding themselves in time, but selects from the continuum such data as are relevant to the characterization of the elements it has established.

The Linguistic Study of Language

What distinguishes theoretical linguistics from the other approaches to language is not, then, its scientific status, but its goals - what aspect of language it sets out to describe and explain. It is on the basis of what its goals are that it selects its data. What then, we may ask, differentiates the linguistic study of language from the psychological or sociological study of the 'same' phenomena? Linguistics may have achieved autonomy from logic and philosophy; has it also achieved autonomy from psychology and sociology? Certainly it aims to do so, and it does this by limiting very severely what it considers to be its data. The linguistic study

of language confines itself to a study of the verbal utterances of human beings. Its aims are to describe the structure of these utterances and to do so by setting up a theory of linguistic structure grammar. This means that it does not concern itself with the motives of the speaker, what he is trying to achieve through using language; it does not concern itself with the differences between speakers and hearers or the fact that no two speakers are identical in their verbal behavior, that the society from which the data are taken cannot be regarded on some counts as homogeneous, or that people, when they speak, make mistakes or false starts, forget the thread of their arguments.

The linguist is not concerned (or some claim not to be) with the situational context in which his data were produced, the relations between the speakers and hearers, their social characteristics, what is happening while they talk, the results of their speech, the accompanying paralinguistic behavior, and so on. The linguist's data are, when reduced to the bare essentials in this way, of two sorts: (a) sequences of sounds, or more accurately, an acoustic wave form; and (b) certain sorts of judgments on these sequences, e.g. their acceptability, their similarity and difference. These are his data, and his job is, by the application of some notions about them, to reduce them to some sort of order, to discover some sort of regularity in them in spite of their apparently heterogeneous nature.

One might think that, after the partial catalogue of all the things the linguist does not regard as part of his data, what is left is scarcely worth bothering with. This might seem to be particularly the case when we consider the usefulness of such an approach to language teaching.

The Goals of a Linguistic Theory

There is a reciprocal relation between goals and data. What you have selected to observe constrains what can be said. Similarly, what you want to say determines what data you select in the first place. By so severely restricting his data the linguist also restricts what he can say about language. But even then there are considerable differences between the goals that different linguists have set themselves which have affected not only the nature of the data they have worked with, but also their attitudes to those data. Some linguists have set their sights no higher than to provide a method for describing the structural characteristics of some finite body of data, or a corpus. The motivation for doing this was particularly strong when the need was to describe languages or dialects on the point of dying out, or elucidating written but partially incomprehensible texts.

All that was asked of linguistic theory and description at this level was that it should provide a means for describing exhaustively the sets of limited data with which it was concerned, that it should have as its endpoint a comprehensive ' description of the language' of the corpus.

Inasmuch as it does this, such a theory and associated description can be regarded as observationally adequate. The ideal of such a way of approaching linguistic data would be to have an automatic process, an algorithm, or a set of rule-of-thumb procedures which, when applied to the data, would churn out the grammar of that corpus, 'untouched by human hand'. The difficulty which arises here is that there are in principle an indefinite number of possible ways of doing this, all of which turn out an observationally adequate description of the data.

In case this is not clear, consider various ways in which the data in a corpus could be described and classified. One could do what a dictionary does and classify all sentences in the corpus according to the letter of the alphabet with which they started. Or one could classify sentences according to the number of words they contained, of again, according to the part of speech with which they ended. This would yield three totally different and observationally adequate descriptions. One could think up a very large number of such criteria for the classification of sentences. If all one wished to do was to make generalizations about the data to discover regularities in the data, there would be no reason for choosing between one and another criterion or set of criteria, except the simplicity, elegance or economy of the resulting description.

These may appear to be absurd proposals, but they have served their purpose if they show that in fact what matters, in a description is starting off with the right criteria, and making the relevant generalizations. Unless one approaches the data with some notion of what is relevant, what it is one is trying to explain, there is no reason for preferring one set of criteria to another. In fact, of course, those linguists whose object was to describe the characteristics of their data did start off with a set of criteria. The only thing is that these criteria were not explicit. What the 'right' and 'relevant' criteria for making a description are depends on the goals you set yourself.

Any useful or adequate description of a language must not only cope satisfactorily with what has been written or said, but also with what may be or could be written or said in that language. It must be projective (or predictive). Such an approach regards the data as a sample of the language. And the description must not only account adequately for the data on which it is based, but must also predict the nature of any other data which might be gathered from the same source. It deals, therefore, not only with 'actual' sentences in the language, but also 'potential' sentences. Descriptions of languages, or grammars of languages, which have the characteristic of being projective, are in technical terminology called 'generative' grammars'.

One outstanding characteristic of human language that differentiates it from animal communication is its creativity. This means that we all have the ability to construct and understand an indefinitely

large number of sentences in our native language, including sentences we have never heard before, Indeed, most of the sentences we produce and hear are 'new' in this sense. When we teach someone a language we clearly wish him to have this same capacity to understand and to produce, at will, sentences he has never heard before but which will immediately be understood by his native speaking hearers. A description of a language which is projective is, therefore, a necessity for language teaching. Traditional grammars are, in fact, projective in this sense.

Another quality which we must seek in any adequate grammar of a language is that it is vulnerable, that is, that it can be proved wrong empirically. Clearly such a grammar must be predictive in the sense already outlined. If a grammar predicts that a certain sentence is possible and it turns out that this is not the case, then that grammar is in adequate, or, on the other hand, if it says that a certain sentence which has been observed is not possible, then similarly that grammar is inadequate. For a grammar to be vulnerable, it must be explicit, i.e. it must not leave anything unstated for the reader to fill in from his own knowledge. If it is not explicit, then any of its failures correctly to predict or to stigmatize can be conveniently blamed on the reader and not the grammar. The quality of explicitness is also important to language teaching. After all, if the learner were able to supply from his own knowledge what the grammar omitted or did not express clearly and unambiguously, then he would not need to be learning the language in the first place! Traditional grammars failed in the requirement of explicitness. Grammars, then, must be both explicit and projective if they are to meet the criterion of descriptive adequacy. Some linguists, including Chomsky, maintain they must be more. For a general discussion of adequacy in linguistics, the reader may care to consult Chomsky (1965, pp.30-37).

We must now return to the question of the criteria for preferring one explicit, projective, that is generative, grammar to another, for selecting one grammar out of several as the 'right' one. The answer is quite simple but has far-reaching consequences: that grammar is 'right' which accords with the native speaker's intuitions about his language. This is why the native speaker's judgments about his language are part of the linguist's data. To give just two examples of what this means: traditional grammars have always recognized that active and passive sentences were related to each other in some fairly simple way, e.g. the object of the active sentence is recognized as having the same function as the subject of a passive sentence:

The mad dog bit Tom-Tom was bitten by the mad dog.

The two sentences are obviously very different. In this respect traditional grammars accounted for the intuitions of the native speaker. But

traditional grammars did not so clearly recognize that, in spite of the physical similarity of the following two sentences, the native speaker does not feel that they are as simply related as are passive and active sentences:

Ann is easy to please.
Ann is eager to please.

To check this we need only note that *It* is easy to please Ann is an acceptable paraphrase of the first, while *It* is eager to please Ann is not a paraphrase of the second. Although the elements of which both sentences are composed belong to the same 'parts of speech' in the same order, the relations between these elements are evidently not the same. In the first sentence we understand that it is Ann who is being pleased, whereas in the second it is Ann who is doing the pleasing.

The consequence of requiring that a grammar should accord with a native speaker's intuitions is that we must accept a different goal for linguistic theory. Whereas, before, we were content if a description of a language accounted in an adequate fashion both explicitly and projectively for any data from that language we cared to submit for scrutiny, that is, we were concerned with describing 'language', now it looks as if we are describing what native speakers conceive to be the nature of their language. The emphasis has shifted from the nature of language data to the nature of the human capacity which makes it possible to produce the language data. This is how Chomsky (1968a) puts it:

The person who has acquired knowledge of a language has internalized a system of rules that relate sound and meaning in a particular way. The linguist constructing a grammar of a language is in effect proposing a hypothesis concerning this internalized system...and later:

At the level of a particular grammar he (the linguist) is attempting to characterize knowledge of a language, a certain cognitive system that has been developed - unconsciously, of course - by the normal speaker-heare. Linguistics so characterized is simply the subfield of psychology that deals with these aspects of the mind (pp.23, 24)

Competence and Performance

Some linguists, Chomsky among them, would claim that the objectives of the linguistic study of language have always implicitly been the characterization of the internalized code or set of rules used by a speaker-hearer when he uses his language, and not a description of the utterance produced by speakers of a language. Surprisingly, perhaps, the latter aim is regarded by some as being too ambitious, since it involves all those factors of a nonlinguistic nature enumerated in the section above,

which fall within the domain of psychology or sociology. Linguists, according to this point of view, do not study what people do when they speak and understand language, but seek rather to discover the rules underlying this performance. This is what Chomsky (1966a) calls their competence:

A distinction must be made between what the speaker of a language knows implicitly (what we may call his competence) and what he does (his *performance*). A grammar, in the traditional view, is an account of competence. It describes and attempts to account for the ability of a speaker to understand an arbitrary sentence of his language and to produce an appropriate sentence on a given occasion. IF it is a pedagogic grammar, it attempts to provide the student with this ability; if a linguistic grammar, it aims to discover and exhibit the mechanisms that make this achievement possible. The competence of the speaker - hearer can, ideally, be expressed as a system of rules that relate signals to semantic interpretations of these signals. The problem for the grammarian is to discover this system of rules; the problem for linguistic theory is to discover general properties of any system of rules that may serve as the basis for a human language, that is, to elaborate in detail what we may call, in traditional terms, the general *form of language* that underlies each particular realization, each particular natural language.(p.9)

Now this distinction between competence and performance derives from and is certainly related to the distinction made by de Saussure between *langue* and *parole.* De Saussure (1961, p. 18) used the now famous analogy between the score of a musical work and its performance, to clarify this distinction. Each performance of a musical work is unique, not only in the sense that it takes place on a particular occasion, but that it shows many differences from other performances which derive from the idiosyncrasies of performers, audience, conductors, instruments, concert hall. Looked at in another way we would say that the score is an *abstraction* from all the different performances. A skilled musician could 'reconstruct' the score, if he was unfamiliar with it already, from hearing a number of different performances.

In the same way, it is suggested, a skilled linguist *infers* the rules of the language from a study of the data of utterances. Actually, this analogy is faulty. The relation between score and performance is much closer to the relationship that many modern linguists draw between sentence (score) and utterance (performance). Utterances are instances of *parole*; they are situationally conditioned realizations of sentences. The concept of *langue*, a socially shared system of rules, a code in the sense we have been using it, or grammar in the linguist's sense, corresponds more closely to the system of rules which the composer follows to *create* scores, e.g. rules of sonata form, rules of harmony, rules of counterpoint, rhythm, etc.

The native speaker's competence, then, can be characterized as a set of rules for producing and understanding sentences in his language. The grammar of a language, thus, in its linguistic sense is a characterization of the native speaker's competence (see chapter 2). Now, as we noted in chapter 3, all speakers of a language vary slightly in the rules they follow, as well, of course, as in their performance. For this reason it is necessary to make a further abstraction. The grammar of language is, according to Chomsky, the characterization of the competence of the *ideal* native speaker-hearer in a *homogeneous* society. Thus, unless the linguist for some special reason (see chapter 12) proposes to describe the competence of some individual speaker (idiolectal competence) the grammar of a language does not factually represent the rules followed by any particular individual when he speaks or understands a language. The 'competence' which the linguist describes is thus an idealization or an abstraction.

The competence of a native speaker is made apparent and can be investigated through his ability to detect ambiguities in sentences, e.g. to recognize two or more possible meanings in such sentences as:

Mary is a beautiful dancer.

To distinguish grammatical from ungrammatical sentences:

The tiger looks terrifying.
The tiger looks sleeping.

To recognize relationships between sentences:

Jane came home yesterday.
Jane didn't come home yesterday.
It was yesterday Jane came home.
What Jane did yesterday was come home.

To be aware of paraphrase relations between sentences:

Jane knocked in the nail with a hammer.
Jane used a hammer to knock in the nail.
Jane hammered in the nail.

Clearly, competence, in this sense of being able to recognize and produce grammatical sentences in a language and recognize the meaning relations between them, is something a learner, and also a native speaker, must have. Furthermore, it is a reasonable goal for linguistics to try to elucidate the nature of this capacity; but the description of a speaker's competence in this sense falls short of a full account of what a speaker must know in order to communicate. It is for this reason that an

increasing number of linguists believe that this goal for linguistics is too limited.

A native speaker must not only be able to produce and understand grammatically *well-formed* utterances, he must also be able to produce and understand utterances which are appropriate to the context in which they are made. It is just as much a matter of 'competence' in language to be able to produce appropriate utterances as grammatical ones. It is thus that the concept of *communicative competence* has come into being (Wales and Campbell, 1970, p. 249; Hymes, 1972). Just one example: the sentence *Amy* is the girl in blue can be spoken with the principal stress on either Rebecca or blue. This yields two 'different' sentences which are certainly semantically equivalent, i.e. mean the same thing or refer to the same 'state of affairs':

Amy is the girl in blue.
Amy is the girl in blue.

But only the first is an appropriate answer to the question *Who is the girl in blue?* And the second to the question *Which is Amy?*

When we are teaching a second language we are trying to develop in the learner not just *grammatical competence* in the Chomskyan sense, but *communicative competence*. We are teaching him not only what we call 'the formation rules' of the language, but in addition what Hymes has called 'the speaking rules'. The learner must, it is true, develop the ability to produce and understand grammatical utterances, he must be able to distinguish grammatical from ungrammatical sequences, but he must also know when to select a particular grammatical sequence, the one which is appropriate to the context, both linguistic and situational. His utterance must be situation-related. Or to put it in another way, he must not only learn to talk grammatically in the target language, he must also talk coherently and to the point.

Much of the 'teaching of grammar', particularly the drills and practice routines indulged in modern teaching methods aim at developing simple grammatical competence and no more. The complaint, already referred to, which teachers often make, that their Students perform well in practice in class but can't use the language to any purpose outside can be explained by reference to the distinction between 'grammatical' and 'communicative' competence. They have acquired the one without the other.

The only pedagogical solution available at the present time is to ensure that the language data to which the learner is exposed be presented 'in context', i.e. as part of continuous discourse or dialogue, and in a situational context, if necessary, simulated. So long as linguistic theory is concerned only with the internal structure of sentences, as it has

predominantly been over the centuries, the sort of descriptions the teacher needs in order systematically to develop communicative competence in his Students will be lacking. Linguistic theories simply do not exist at the present time which give more than an anecdotal account of the relations between sentences in discourse or dialogue or the way in which utterances vary systematically in relation to differences in the situational context. Until such theories of communicative competence are much better developed the teacher will have to work on a principle of hit-and-miss exposure, hoping that the learner will discover on his own the discourse rules or 'speaking rules' of the language as we have called them.

Levels of Analysis

The task of a linguistic theory is often said to be to state the systems of rules which relate meanings to sounds. This relation is a very complex one and linguists have always found it necessary to break down this relationship into a number of steps or stages. The stages, or *levels*, which they have set up to do this have varied from time to time and from one theoretical orientation to another. What all linguists have agreed about, but not always explicitly, is that at least two stages are necessary.

This means that all linguists agree in finding at least two fundamentally different types of organization in language. This is sometimes called the *double articulation* of language. For there to be patterns there must be basic units which enter into formal relations with each other. The two sets of basic units corresponding to the two types of structure are what we can call words on the one hand, and sounds or letters (where the language has an alphabetic writing system) on the other. The first or primary units, words, are meaningful in themselves, while the secondary units, sounds, are not. There are, of course, problems in defining what a word or a sound is; the definition depends upon the particular linguistic theory or 'frame of reference'. 'Word' will be defined differently in different theories.

There is no 'theory-independent' definition of 'word' or 'sound', or indeed any one of a host of other linguistic terms. The layman may think he uses such terms in a consistent fashion, but a little investigation will show that this is far from the case. For example, he may say that *worked* in *he worked his passage* and *he has worked his passage* are instances of the 'same' word because both are spelled the same. There is nothing odd about asking someone: how do you spell the word *worked*? They are, in linguistic terms, *orthographically* (and *phonologically*) one and the same word. But, in the sentences: *He can't read this word and he has just read the word*, the word *read* has the same spelling. Is it then to be regarded as the 'same' word, because of the spelling or two different words because of the pronunciation? Again, in the sentences: *he has gone to market and he went to market,* the words gone and went are often called 'different forms of the "same" word', the one that appears in the

dictionary as go. That is to say, while they are phonologically and orthographically different words, they are instances of the same 'dictionary' word, or 'lexical' word. When we look up a word in the dictionary it is given in the grammatically 'unmarked' form. We would say that one was a past tense verb, and the other an imperative.

These grammatically different forms are usually clearly distinguishable, e.g. *he dropped his pen* and *drop that pen!* Let us look at three more examples: in *I can't bear it* and *he was mauled by a bear* we have a word which is orthographically and phonologically one word, but grammatically and lexically two words. What about *use* in *use this knife!* And *what use is this knife?* Orthographically and lexically one word, but phonologically and grammatically two. Finally, here is a more difficult example. In what sense are we to regard *ear* in *an ear of corn and a blow on the ear* as the 'same' word? Orthographically and phonologically, yes; they are both nouns, so grammatically, perhaps, yes. But are they lexically the same word? The dictionary regards them as distinct (their historical derivation is quite different), but as far as meaning is concerned, many people regard the *ear of corn* as a metaphorical extension of *the ear on your head.* This is the sort of problem dictionary-makers are constantly running into. What makes *works, worked, working* all instances of the same lexical word is that they all have the same 'meaning'. The problem the dictionary-maker (and the linguist) has to grapple with is: how different does the meaning between two physically identical forms have to be to count as two distinct lexical items. And conversely, may it not be the case that two physically different forms are really cases of the same lexical item: *go/went, contempt/despise.*

Table 1

	Phonologically	*Orthographically*	*Grammatically*	*Lexically*
worked-worked	/	/	x	/
read-read	x	/	x	/
go-went	x	x	x	/
put-put	/	/	x	/
bear-bear	/	/	x	x
use-use	x	/	x	/
ear-ear	/	/	/	?

Table 1 summarizes this little investigation. A tick means 'the same' and a cross 'different', and we can note a general tendency for orthography and phonology to go together, but no such tendency in the case of grammar and lexis.

No satisfactory scientific theory could (in any of its technical terms) tolerate such multiple ambiguity as we have discovered in the case of the word, *word.* Consequently, linguistic theories are either forced to invent new terms (e.g. lexeme, morpheme, morph, etc.) and/or restrict the meanings of such terms as word and *sound* to only one of their 'everyday'

meanings, where this is feasible. There is, of course, nothing peculiar in this to linguistics; every scientific or technical field is forced to do the same, but it unfortunately leads to the layman's uncomprehending charges of using 'jargon'.

This little exercise has introduced a number of terms : orthographic, phonological, lexical, grammatical - which refer to different types of patterning in language, for which the linguist sets up different *levels of analysis* in order to relate *meanings to sounds*. The phonological (and orthographical) levels are those which correspond to what has already been referred to as the *secondary level of articulation* of language, and the grammatical to the primary level of articulation. Within each level we find, in most theories, further subdivisions. Thus, within the secondary level we may sometimes meet two further levels: *phonetics* and *phonology*, and within the grammatical level, morphology (or accidence) and s*yntax*.

While the establishment of different levels and their relationships is a theoretical matter, what the theory is concerned with is the structure of language; each level has a type of structure of its own, and a corresponding theory which establishes the relevant categories of units, such as w*ord* or *sound*. These categories will, of course, have subclassifications, familiar, in the case of word, as the different parts of speech or, in the case of *sound*, such categories as *vowel* and *consonant*. Furthermore, each level has a set of possible relations between its units and categories. Some of these also are familiar from traditional grammar: *subordination, coordination, apposition, modification, word order, subject, object* and so on. This is not the place to go further into grammatical or phonological theory.

Meaning in Linguistics

If you want to know about the grammar of a language you get a grammar book; if you want to know about the pronunciation of a language you get a book on the 'phonetics' of the language; but what is a dictionary for? It is usually thought of as the book in which we find out about the meaning of a language, or, at least, of the 'words' of a language. It does this by giving the 'definitions' of words. But what is a definition? It is simply a statement of 'equivalence' of some sort, or more precisely of implication. Thus, in defining a *cabbage* as *a type of vegetable*, what we are in effect saying is that every time we refer to a cabbage we are implying that we are referring also to a type of vegetable. We could perfectly well, though with a slight change of meaning, substitute *vegetable* for *cabbage* in the same sentence. Notice that the converse is not the case; when we use the word *vegetable* we are not necessarily referring to a cabbage. Thus there is a relationship of implication between *cabbage* and *vegetable*. Relationships of implication between words, or indeed sentences, are *semantic* relationships. And the study of these relationships is part of the study of semantics. In this way,

a dictionary is a description, though a very partial and unsystematic one, of the semantic structure of a language.

Just as in the case of grammatical relationships, we traditionally distinguish different sorts of semantic relationships by name, e.g. synonymy; antonymy; or, in more technical discourse, *contrary*; *converse*; *complementary*; *contradictory*. Thus good and bad are said to be antonyms; *start* and *begin* synonyms; *red* and *blue* contradictory terms; *husband* and *wife* complementary terms; *buy* and *sell*, *borrow* and *lend*, *take* and *give* converse terms, and so on. Thus, the vocabulary of a language is bound together in an enormously complex *network* of different relationships. The ordinary dictionary states, by means of definitions, just a very few of the semantic relationships that a word enters into with other words. One part of semantic theory then is concerned with the relations between the lexical words of a language, the *sense* relations between words.

It is evident that a dictionary, quite apart from its incompleteness, is as we have seen, rather haphazard about how it organizes its statements about meaning. Might there be a more explicit way of organizing and describing the lexical material of a language? One way in which this has been done is by imposing a hierarchical structure on the vocabulary of a language. The best known description of the lexical structure of English on this principle is *Roget's Thesaurus*. In it, the vocabulary of the language is structured in a taxonomic fashion, rather as in the familiar Linnean botanical classification. From a descriptive point of view such an organization is an improvement on the random ordering of the dictionary, but unfortunately it depends upon using a limited set of sense relations, principally those of superordinate to subordinate terms (i.e. more general to more specific; e.g. *colored* → *blue* → *ultramarine*; or *plant* → *vegetable* → *cabbage*).

The result is that the network is a *closed* network, that the sense relations of a language make up a sort of *closed circuit*. Semantics is circular. One might ask: how does anyone ever learn a language, how does he ever break into this charmed circle? The answer is that sense relations are not the only relations which words enter into; indeed, for many people possibly the notion of meaning is more identified with these other relations, those which link words with objects, classes of objects and processes in 'the world outside', that is, with relations of *reference*. If someone asks you the meaning of the word *cabbage*, instead of saying it is a sort of vegetable, you can, if you have an example of the thing handy, point to a cabbage and say: *that* is a cabbage. This is a different sort of 'definition' and it does not depend entirely on other words. It is an *ostensive definition*. It is by means of ostensive techniques of this sort we begin to learn our mother tongue, and many techniques of second language learning make use of this method to break into the closed network of the lexical structure of a new language. There are other ways,

of course. You can use translation, but translation has its dangers. They are, quite simply, that the lexical structure of two languages is most unlikely to be identical or, technically speaking 'isomorphic', though in those areas where the culture of two communities 'overlaps' there will be a greater probability of structural similarity.

Let us give just one example: if you point to a herring and ask a Norwegian speaker what he calls it in his language, he will say: *sild*. Thus, *sild* is a translation of *herring*, and has the same referential relations in the outside world. Now every English speaker knows that herrings are a sort of fish. There is a semantic relation between the two words; the word *fish* is superordinately related to the word *herring*. Now ask the Norwegian how he translates *fish* into Norwegian. He will most probably say *fisk*! We can illustrate this graphically as in Figure 1 below.

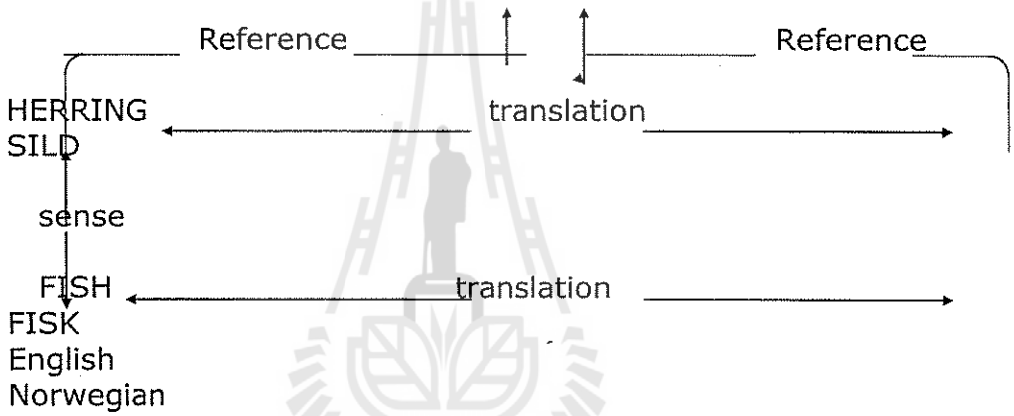


Figure 1: The semantic relations of herring, sild, fish and fisk.

So far we have spoken only of the meaning relations of words, or the lexical elements of a language. It is quite clear, however, that other units of language, such as the sentence, may have meanings which are not just the 'sum' of the meanings of their constituent parts. Thus, *the boy loves the girl* and *the girl loves the boy*, although their constituent words are identical, do not mean the same thing; the one does not even necessarily, alas, imply the other. The difference in meaning is obviously connected with the different grammatical functions of *the boy* and *the girl* in each case. These functions are referred to traditionally as subject and object. So also, *the boy loved the girl* and *the boy loves the girl* do not mean the same thing, nor, alas, does the one necessarily imply the other. In this case the difference is related to a difference in the grammatical category of tense. Finally, *the boy loves the girl* and *Does the boy love the girl*? differ in meaning in respect of what, in chapter3, we called *sentence function*, or in traditional terms, differences in *mood*. In every

one of these cases the differences in meaning are *signaled* by some physical difference in the form of the sentence, either by a change in the order of the words, a change in the form of a word, or the addition of an extra word. It is necessary here just to add a note of caution. While differences in meaning may be signaled by some physical differences in form, this is not *necessarily* the case. Hence the existence of ambiguity:

Mary is a beautiful dancer.

Nor is it necessarily the case that differences in physical form always signal difference in meaning:

Jane used a hammer to knock in the nail.
Jane knocked in the nail with a hammer.

Acceptability

It is now time to return to a further consideration of the two key concepts of acceptability and appropriateness in the light of what has been said in the previous sections. When we teach languages we wish to turn out people who are capable of producing and recognizing utterances which are both acceptable and appropriate. After our discussions of the goals of linguistics and of the nature of linguistic analysis we can be somewhat more precise about these two notions.

So, the goal of linguistics, which was to characterize all the actual and potential sentences of a language in a way which accorded with the intuitions of a native speaker about his language, was to give an account of what Chomsky has called the competence of a native speaker. The data on which such a theory is based are utterances of native speakers. In Lyons's words (1968):

An acceptable utterance is one that has been, or might be, produced by a native speaker in some appropriate context and is, or would be, accepted by other native speakers as belonging to the language in question. (p.137)

But there are certain difficulties in such a definition. A person is a native speaker of his own idiolect and no two people have identical idiolects. It might seem that the only way out of these difficulties was to do what Chomsky does and say that the linguist describes the competence of an *ideal* native speaker in a *homogeneous* community. It appears that the competence of the 'native speakers' is a somewhat variable, rather than a well-defined thing, that it is best characterized by sets of both variable and invariant rules. The grammar of 'a language' is thus seen as essentially *indeterminate*. If the descriptions of 'a language' appear sometimes to be well-defined and unqualified, then those qualities have been put there by the linguist, and they are not a feature of human language. But having said this we may again quote Lyons:

To assert that the grammatical structure of a language is in *the last resort* indeterminate is not the same as to assert that no part of the grammatical structure is determinate. There are many combinations of words which all linguists will characterize immediately, not only as unacceptable, but also as 'ungrammatical'.(Lyons, 1968,p.154)

For the language teacher this is just as well; he must be able confidently to stigmatize certain utterances of the learner as unacceptable or incorrect. But he must be able to go a great deal further: he must be able to say in what way they are incorrect or unacceptable (see chapter 11). It is here that our discussion of the levels of analysis comes in.

Utterances may be unacceptable at any of the levels of analysis. A foreigner may produce perfectly 'grammatical' sentences with a foreign accent. In such a case his utterance would be unacceptable at a *phonetic* level. No native speaker would pronounce it in the way he did. By 'speaking with a foreign accent', I mean no more than what, in the case of written language, would be called 'writing with a foreign hand' - no breach of the grammatical or phonological rules is committed. Then there are those foreigners, for example, who do not make a distinction between 'I' and 'r' in their pronunciation. Such an error is not merely phonetic, since it obscures the meaning distinction between such words as *lamb* and *ram* or *lice* and *rice*. The equivalent in writing would be precisely that of consistently using the letter 'I' to do the work of both 'I' and 'r' (at least at the beginning of words). The utterance of such a foreigner is *phonologically* unacceptable.

There is no need to illustrate unacceptability at the syntactic or morphological level since this includes all those utterances which we call in everyday language 'ungrammatical'. But it is important for the foreign language teacher to realize that what the native-speaking layman often refers to as 'ungrammatical', for example, 'double negative' sentences - *nobody told me nothing* - are not, of course, unacceptable except in a social sense or in terms of the grammar of a standard dialect. Learners do sometimes by chance produce sentences which resemble those produced by native dialect speakers, e.g.

She don't come here very often.
I were talking to him.
What was you saying?

But much more often the learner's erroneous sentences are of a form which probably no native speaker of any dialect of English would produce, e.g. * *he come very often here.* We might note here that many of the 'starred' forms, i.e. examples of deviant, ill-formed or unacceptable sentences used for explanation and discussion by linguists, would never

be produced either by native speakers or learners. They are simply artifacts in the methodology of linguistic research.

Now, we come to the level of semantic unacceptability. Here we are in some difficulty. While no one would have any difficulty at one extreme in stigmatizing Chomsky's famous example sentence, *Colorless green ideas sleep furiously*, as semantically unacceptable, greater difficulty might arise with Mark Twain's equally famous statement: 'The reports of my death have been greatly exaggerated.' But in the case of a sentence like: *More than 100 per cent of the inhabitants suffer from malnutrition* we may wonder whether we have a case of semantic unacceptability or merely evidence of inadequate 'knowledge of the world'.

The difficulty is that when utterances like these occur we cannot, without further investigation, decide whether the speaker is breaking a sense-relation rule of the language or a reference-relation rule. If the former, it is a case of unacceptability, if the latter, a case of inappropriateness. It is, as we have agreed, just as necessary that a learner, child or foreigner, should learn the formation rules of a language as the speaking rules. Inappropriate language is a breach of the speaking rules of language.

Appropriateness

Part of knowing a language is knowing the reference relations of lexical items, and as we have seen, it is through these relationships that we break into the closed network of the semantic structure of a language, and where differences lie in the way different cultures structure the world. We have also seen the consequent dangers that lurk in translation and the relevance of cultural overlap in language learning. We can call that *referential appropriateness.* Appropriateness is involved in the selection of utterances so that they relate to their linguistic environments in dialogue or discourse. We would call this *textual appropriateness.*

There is another sort of appropriateness which we can call, in general, social. This, too, has already been touched on in chapter 3 where we observed that the choice of language matches the social roles and status of the participants in any given interaction. Where the focus is on the relative status of the participants we can speak of *stylistic* appropriateness. As far as the lexical element in the language is concerned, a good dictionary will mark its statements of synonymy with some indication of the social situation which selects a particular item; thus, we often find in parenthesis (vulgar), (slang) after a particular word, and perhaps even (obscene), (blasphemous). I am told that naval men don't like their ships referred to as 'boats', although both words may name the same class of objects. We have to be a little careful here to make a distinction between referring to the same class of objects by different names in different social contexts and the use of technical terminology. In the latter case, we are often dealing with classes of

objects unknown to the layman, or distinctions which the layman does not need to make. If he has occasion to refer to such an object he will have to resort to some vague circumlocutionary form, *the thingummy sticking out on the side of the whatsitsname - Oh, you mean the gudgeon pin.*

Learning a language, then, is not just a question of learning to produce utterances which are acceptable, they must also be appropriate. Linguistics has a lot to say about the former. So far it has little to say about the latter.

The account of the process of sentence recognition given above, or, as I shall call it from now on, sentence *identification*, in order to emphasize the point that different processes are involved, is sometimes called 'analysis by synthesis'.

It has one rather serious defect as it suggests that in order to 'identify' a sentence, we must first analyze it completely and then see if the structure of the sentence can be 'generated' by the rules of the grammar we have internalized. Such a process seems intuitively too cumbersome and slow (Thorne, 1966, p.7). Consequently, some modifications have been suggested (Sutherland, 1966, p. 161) to the effect that we do not go through the whole process in its entirety, but 'sample' the incoming data and, on the basis of our sampling, *predict* the structure of the utterance and act accordingly; that is, go into the next phase of the performance. This modification of the 'analysis by synthesis' model is called a 'heuristic' model. It would account for the fact that we often do make mistakes in our receptive processing of utterances, and have frequently to 'backtrack' and do a more complete job of analysis of the incoming data. The heuristic model introduces the notion of *prediction* or *anticipation* which is found in all the cognitive accounts of perception, and very roughly covers what is meant by the saying, 'we hear what we expect to hear' (Bruce, 1956).

The ability to anticipate is an absolutely fundamental skill in language use and language learning. It operates at all levels of comprehension-anticipating what a person is going to talk about in a situation, anticipating what a person's next utterance is going to be in a dialogue, what the next word in his utterance will be, down to anticipating what the next sound is likely to be after a given series of sounds. This is a very big part of what we have called linguistic competence. It is, in a sense, the sheer unpredictability of utterances in a foreign language which, at least in the earlier stages of learning, tends to be bewildering or indeed paralyzing. If we have to process *all* the data down to the last detail the whole system gets clogged up and grinds to a halt. Any ability to anticipate or predict is based on the knowledge of rules. That is why language is often called 'rule-governed' behavior.

If we want to see how this works in other fields of activity we need only think of driving a car. If we were unable to anticipate with some degree of certainty the behavior of the other drivers we would be so paralyzed that we would never venture out onto the road at all. It is because we and other drivers know the 'rules of the road', the highway code, that we are able to anticipate their behavior within sufficiently narrow limits for us to dare to pass them, cross the lights at green and make all the other manoeuvres which involve other road users. Driving is, thank goodness, rule-governed behavior and consequently to some degree predictable. (Most of us would like the behavior of other drivers to be more predictable.) Language, however, is never *wholly* predictable. If it were, it would not serve for communication. What is wholly predictable is uninformative. Meaning implies choice and consequently while anticipation makes language performance possible, it is not the whole story.

It is not sufficient merely to *identify* utterances as grammatical. In linguistic terms, we have to internalize not only the grammatical but also the 'lexical' rules. These rules, as we saw, have to do with the semantic structure of the language, with its internal 'sense relations'. Utterances could be either grammatically or semantically unacceptable. Identification, therefore, is the process of recognizing utterances as grammatically and semantically well-formed.

It is at this point that K must introduce again the frequently-heard remark: *I understand what you say, but I don't know what you mean.* We can reinterpret this in the light of what has been said so far. It could be phrased as: *I identify your utterance as well-formed according to the rules of the language, but I do not understand it.* The reader will note that I have used the term *understand* differently in the two sentences; in the first, as equal to 'identify', and in the second as equal to 'know what is meant'. The second meaning is the one I used in the example in connection with a discussion of the 'function of language' in chapter 3. It meant there, as here, 'perceive the function of the utterance in its context', or 'perceive the intentions of the speaker'. The process of *understanding*, in this sense, involves, of course, 'understanding' the situation as well, and this relates the understanding of language to an understanding of the world.

Labov (1970b) suggests that there are indeed what he calls 'invariant rules of discourse analysis'. He illustrates these rules from our use of *yes* and *no.* He says:

Given two parties in a conversation, A and B, we can distinguish 'A events' as things that A knows but B does not; and 'B events' as the things that B knows about but A does not.... The rule then states:

If A makes a statement about a B even, it is heard as a request for confirmation.

This rule contains the social construct of 'shared knowledge' which is not normally a linguistic rule. This is merely one of the many rules of interpretation which relate 'what is said' - questions, statements, imperatives - to 'what is done' - requests, refusals, assertions, denials, insults, challenges, retreats and so on. There are no simple one-to-one relations between actions and utterances. (p.80)

In the terminology we have been using 'heard' and 'interpretation' would be expressed as *understood* and *understand*. We can illustrate this rule quite simply, taking *yes* and *no* to indicate that an utterance has indeed been *understood* as a 'request for confirmation'.

1. A. You're not feeling very well. (B event)
   B. No-Oh, yes I am. (confirmation-disconfirmation)
2. A. She told you she was coming. (B event)
   B. Yes-No, she didn't. (confirmation-disconfirmation)
3. A. I can see him quite well now. (A event)
   B. *Yes-No. (inappropriate)

As Labov points out, the rule operates so stringently that many speakers will not continue making a statement about a B event until a yes-no response has been forthcoming. On the other hand, as example 3 shows, statements about A events do not require or even tolerate a yes-no response.

The reader will by now have discerned the connection between the psychological process I have been calling *understanding* with the notions of 'communicative competence', 'speaking rules' and 'appropriateness', just as he will have connected the psychological process of 'identification' with 'grammatical/semantic competence', 'formation rules' and 'acceptability'. He will also have noted that there is a hierarchical ordering in these processes, such that *identification* presupposes *listening* and *recognition*, while *understanding* presupposes *identification.*

So far the discussion has been on the psycholinguistic processes of receptive behavior. The difficulty of talking about the process is well captured by William James (1890), quoted by Laver (1970):

And has the reader never asked himself what kind of a mental fact is his intention of saying a thing before he has said it? It is an entirely definite intention, distinct from all other intentions, an absolutely distinct state of consciousness, therefore; and yet how much of it consists of definite sensorial images, either of words or of things? Hardly anything!

Linger, and the words and things come into the mind: the anticipatory intention, the divination is there no more. But as the words that replace it arrive, it welcomes them successively and calls them right if they agree with it, and rejects them and calls them wrong if they do not. It has therefore a nature of its own of the most positive sort, and yet what can we say about it without using words that belong to the later mental facts that replace it? (pp.66-67).

Laver identifies five chief functions in speech production. These he describes as neurolinguistic. We would not expect them therefore to correspond on a one-to-one basis with the psycholinguistic processes of receptive behavior already discussed. These are the *ideational* process which he says: 'Initiates the appropriate semantic content of any verbal message the speaker wishes to communicate' (semantic here must be taken to include the speaker's intentions); the permanent *storage* of linguistic information; the *planning* process 'which constructs an appropriate linguistic program for the expression of the idea'; the *execution* of the program which is the actual set of articulatory actions; and the *monitoring* function, about which I have already spoken. It is clear that these functions are not hierarchically ordered in the way the receptive psycholinguistic processes were.

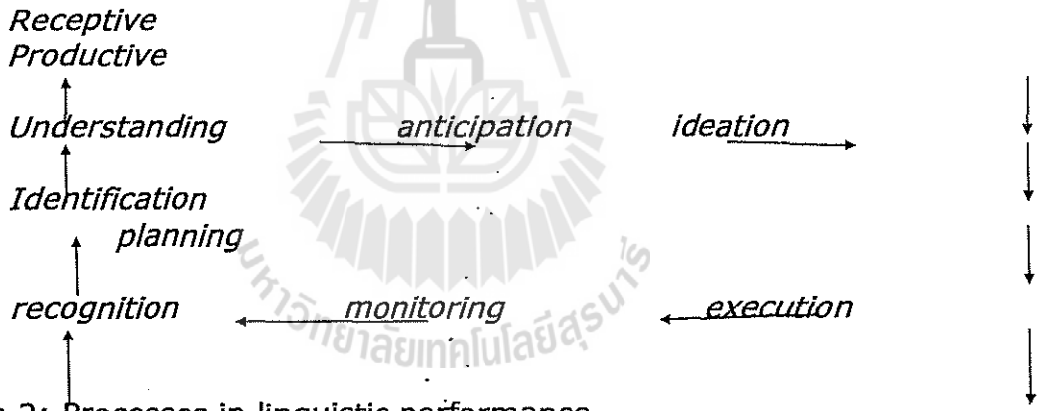


Figure 2: Processes in linguistic performance

For example, the monitoring function must be simultaneous with the execution, and the program and the storage function describes a state rather than a process. We must not confuse the storage of linguistic information with the memory for particular utterances. These are certainly two separate functions (Johnson - Laird, 1970). Storage corresponds to the 'set of rules' and 'schemata' in the recognition phases of receptive behavior. But there is sufficient correspondence to suggest that both accounts have a *three-tier hierarchy*: ideation is the counterpart of understanding, planning, of identification, and execution, the counterpart of recognition. Storage and schemata represent the 'learned element of linguistic information' While monitoring and prediction are complementary functions. This is shown in Figure 8. It is now only necessary to

emphasize in the strongest terms the speculative nature of these accounts of the psycho-and neurolinguistic processes of performance. There is some experimental evidence to give them tentative support, but in default of any alternatives the applied linguist and language teacher must make what use he can of them.

Performance Models and Language Teaching

The first thing to notice is that, in a three tier model, the extreme upper and lower ends of the hierarchy can only doubtfully be regarded as specifically linguistic activities. The lower end, *listening* and *recognizing,* i.e. matching incoming sense data with previously stored information, are certainly not specifically linguistic skills. It just happens that these general perceptual skills are also used in language. If we transfer the notion to written language the same is true. The ability to distinguish different shapes, whether 'natural' or man-made, a tree or a letter, or a written word, is a general perceptual skill. On the productive side the motor skills of manipulating the organs of speech, whether monitored by an auditory or a proprio-ceptive feedback system as in whistling, humming, or in eating, swallowing, clearing the throat, are not specifically linguistic.

More obviously, the muscular control involved in writing is not peculiar to language. We need it for drawing, playing the piano, typing, tying up raspberries and a legion of manipulative arts of all sorts. The difference is that the control of the muscles of our speech organs in not under the same degree of voluntary control as those of our hands. They seem to have a greater degree of routine or pre-planning in their manipulation. It may well be necessary therefore in teaching pronunciation to develop in the learner some degree of 'conscious' control of the organs of speech - what we call a 'phonetic skill'. But notice that in doing this we shall also have to 'educate his ear'. Our eye is much more used to exercising a visual feedback function than our ear is to exercising an auditory one. It is certainly the case that most people are better able to perform a visual matching task than an auditory one. The use of the language laboratory for training the auditory-perceptual skills through self-monitoring is of very uncertain value. As we have seen, *recognition* requires a learned schema. The ability to use auditory feedback to control the organs of speech *presupposes* the prior existence of such a schema. Hence ear-training and pronunciation learning must *necessarily* proceed *pari-passu.*

For most learners, learning to form and identify the letters of the alphabet is a motor-perceptual skill they already possess. Learning to write in a foreign language therefore involves other skills, notably the acquisition of schemata of new letter combinations or 'written' words, i.e. spelling schemata. But already here we are entering into the domain of specifically linguistic processes. As every eight-year-old knows, there are 'rules of spelling'. In fact English spelling is a curious mixture of items

which must be acquired 'as a whole', for which there must be a perceptual schema, and others which can be produced 'by rule'.

Turning to the other extreme of the hierarchy, it is virtually impossible to decide whether *understanding* and *ideation* are specifically linguistic processes or not. This is because the terms are still 'pre-theoretical'. They have not yet been even provisionally defined in any psychological theory. In William James' words:

The language teacher, at all events, can scarcely regard it as part of his job to teach people what intentions they should have and wish to express, *what* messages they should formulate. His job is to make it possible for them to express their intentions and give their messages. He doesn't teach them *what* they ought to say but *how* they are to say it. But he does work on the principle that what they want to say can be said in the target language.

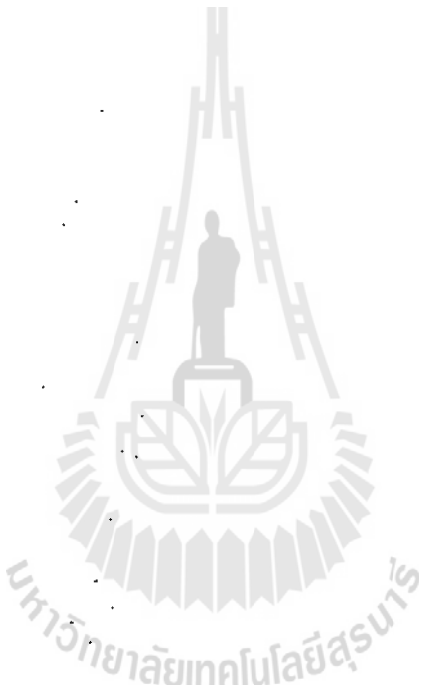
Theories of Language Acquisition and Learning

Theories of language acquisition and learning are bound to be related to what one thinks goes on during performance. Now, since there appear to be several different sorts of process involved in performance, it is not at all unreasonable or inherently improbable that there will be different processes involved in learning them. It would be doctrinaire to suppose otherwise. But we have noted that some of the processes in productive and receptive language performance are probably not specific to language, notably the processes of recognition and articulatory execution. We called these processes motor-perceptual, and we could refer to a large literature on the acquisition of motor-perceptual skills (Vernon, 1962).

Similarly, we tentatively suggested that some part of the processes of *ideation* and *understanding* were not specifically linguistic. At this level experimental studies are fewer, and the disentangling of linguistic and more general cognitive processes is virtually impossible - but here also there is some information, notably on concept formation and acquisition (Bruner, Boodnow and Austin, 1956). What we are left with is the specifically linguistic skills of *identification* and *planning.* Our understanding of the learning of all these skills is still very limited, and theories of language learning must be approached in the same skeptical frame of mind as theories of language performance.

This is the 'associationist' theory of learning. Quite apart from the problem of 'storage capacity' since, as we have seen, the number of different sentences in a language is indefinitely great, there is the problem of the time factor. (As we have seen, to articulate all the twenty-word sentences in English would require 10^{12} centuries.) The speaker of a language is always producing novel utterances, ones which he has not heard before. Any satisfactory account of language learning must

necessarily involve some processes of generalization and abstraction from the language data to which the learner is exposed, in order simply to reduce the quantity of what has to be retained.



CHAPTER FIVE

English Syntax for Language Teachers

What is Syntax?

Syntax is most easily defined as the rules for combining morphemes into larger units, that is, sentences. When most of us think of our experience with grammar, it is the syntax that we remember-all those dreary days spent diagramming sentences and reciting the definitions of the parts of speech. Out of all those school years has come, presumably, a full knowledge on our part of the rules of our grammar, since that is what we were being taught.

But if we stop and think for a moment, do we really know the rules of our grammar? Let's suppose a man walks up to us on the street and says he's doing a grammar survey. Do we know the rules of our grammar (English, of course) he wants to know? Can we assure him that we do? Suppose his question is, "What is the rule for the formation of English questions?" Would we be able to answer him? We should give very serious thought to this question, because our immediate reaction is likely to be that of course I could or we could. We are basing that "of course" on the obvious fact that we are able to flawlessly produce English questions. But remember that we are also able to flawlessly produce the words of our language, and that this ability does not mean that we have conscious knowledge of the phonological rules behind what we are doing.

The rules of syntax, like the rules of phonology, are a part of our competence as a native speaker of English, and reflect the fact that we have internalized the entire grammar of the language. What the linguist wants to do, however, is to make that internalized grammar available not only to us as a native speaker but to anyone who might want to learn about the English language. This means setting down the rules of the syntax in a form that anyone can understand and use. In this goal he is no different from the traditional grammarian who may or may not have called himself a linguist.

Competence vs. Performance

The word "**competence**" is a technical term in linguistics. It is used to describe that complete and presumably perfect knowledge of this native language that is part of the mental equipment or representation of every native speaker. It is the native speaker's competence that allows him to produce the structures of his or her language, and in theory he should always produce them perfectly. In practice, of course, the speaker makes all sorts of mistakes and distortions; because although his competence is unlimited, the same cannot be said of his **performance**, also a technical term in linguistics, which refers to the actual use of language by a native speaker in different situations. However, it is the

speaker's competence that the linguist ordinarily wants to describe and not his performance, and you should keep this in mind when reading linguistic literature.

Traditional Grammarian vs. Contemporary Linguist

There is a basic difference between the goal of the **traditional grammarian** and the **contemporary linguist.** The linguist is not satisfied just to describe the results of how grammar rules work. He is not satisfied, either, with just any set of rules that covers the situation. His goal is to find the smallest, simplest, most economical set of rules possible for any given language: and that set must allow the native speaker to produce all the grammatical sentences of the language while it prevents him from producing any ungrammatical ones.

Immediate Constituent Analysis (IC Analysis)

Linguists are concerned with devising a means of setting down the constituent structure of languages in a way that will demonstrate just the sort of facts which we as native speakers know about our language and which make us aware of the inaccuracy of (3). A number of different systems (called **formalism**) have been proposed. For example, **Hockett**(1958)has proposed a system usually called **immediate constituent analysis** which more clearly illustrates the relationships of the word in a sentence to one another. The following is a diagram of sentence (1) in the nested-boxes system he proposed.

This system for indicating constituent structure is far better than the simple marking-off of morphemes, as in (3). However, it still does not provide us with information on the roles played by the various constituents within the sentence.

Other systems which you will find in linguistic literature are tagnemics which is associated primarily with **Kenneth Pike,** and the diagrams of stratification grammar, which is associated primarily with **Sydney Lamb.**

Phrase Structure Grammar (PS Grammar)

From the examination of a tree structure like that shown in (4) and (5), we can tell a number of things about the syntactic organization of the English language. For example, we can tell that the two most basic units of the English sentence are the **Noun Phrase** and the **Verb Phrase.** The linguist writes this information in a shorthand form known as a **Phrase Structure Rule,** as in (6).

(1) S $\longrightarrow$ NP/VP (A sentence is rewritten as a Noun Phrase followed by a Verb Phrase.)

Another thing that examination of the tree will tell us is that the proper order of a **determiner** relative to a noun in English is before it, and that one possible way of constructing an English NP is to palace a determiner before a noun. This will give us another rule, as in (7):

(2) NP $\longrightarrow$ Det N

We can tell, also, that within a verb phrase the direct object NP must follow the verb in English, and that one possible rule for the formation of an English VP is the following:

(3) VP $\longrightarrow$ VNP

The linguist now has three Phrase Structure rules which recapitulate the structure shown by tree (5), as follows:

(4) a. S $\longrightarrow$ NP VP
b. NP $\longrightarrow$ Det N
c. VP $\longrightarrow$ V NP

This is a small and economical set of rules. It can be used to generate thousands of grammatical sentences of English; for example, all of the following:

(5) a. The girl sings the Christmas carols.
b. The elephants destroyed the street.
c. An Indian saw the English man.

You will recall, however, that the set of PS rules must be capable of generating all the possible grammatical sentences of the language. Obviously, our set of three will not accomplish this task. Our grammar is not even adequate to handle the following very simple sentences:

(6) a. Jack speaks Thai.
b. Jack speaks terrible Thai.
c. The tall student tripped.
d. A student failed his exam.

The linguist must now do something about his set of rules to allow him to generate this last group of sentences as well as the others. Take the first one, 'Jack speaks Thai'. This is very like the sentence with which we began this discussion, 'the student speaks the language', except for one important difference-there are no determiners present in the sentence.

The rule is easily modified by using the linguistic convention which says that elements in a rule, when enclosed in parentheses, are optional. The rule would then read as follows:

(7) NP $\longrightarrow$ (Det)N

That is, an English NP may or may not contain a determiner.

In order to take care of 11 b and part of 11c, we need only indicate the optionality of another element, as follows:

(8) NP $\longrightarrow$ (Det)(Adj) N

This will take care of 'tall student' and 'terrible Thai', both of which are NPs containing an adjective. It will also let us know that the following structures cannot be generated by the grammar of English.

(9) a. tall the boy
b. boy the tall
c. boy tall the

(It is customary in syntax to indicate ungrammatical structures by an asterisk * in this fashion.)

We now have left only the VP portion of 'the tall student tripped', and by this time the linguist's next move will be obvious to you. He simply encloses in parentheses the NP listed in the Verb Phrase rule, to show that not all English verbs must be followed by an NP. Now we have a set of three rules again, but they are modified as follows:

(10) a. S $\longrightarrow$ NP VP

b. NP $\longrightarrow$ (Det) (Adj) N

c. VP $\longrightarrow$ V (NP)

This set of rules, which is very small and very limited, is called a Phrase Structure Grammar (PSG). You will notice that it doesn't have any prepositional phrase s in it as yet, or any adverbs, or any conjunctions. It is obviously inadequate. Nonetheless, in order to see what the linguist does, we will remain with this small PSG, which is adequate to generate many (but not all) English sentences.

Look very carefully now at (15a) and see what it actually tells us. It says, in effect, "Every English sentence must have a noun phrase and a verb phrase, and the noun phrase must precede." This sounds reassuringly like the familiar rule about subjects and predicates, except for the remark about ordering, and should come as no shock to anyone. But is the rule correct? Can it be said, absolutely and without question, that every English sentence must contain an NP and a VP or it is not grammatical? The answer is "no". Consider the following sentence, which is certainly grammatical:

(11) Stop.

There is no NP in this sentence. Our rules will not generate it, yet we know it to be a good English sentence. And it is precisely at this point that the linguist brings in three very important terms: **deep structure, surface structure,** and transformation(TG or Transformational Grammar).

Generative Grammar (TG Grammar)

The ability of the native speaker to form sentences that he has never heard or seen before, and that may never have been used by anyone before, and to produce them on the basis of an internalized rule, is the source of the term generative grammar. **Generative grammar** (also known as **transformational grammar**[1]) is often assumed to have been invented, like a new household appliance, by Noam Chomsky of M.I.T. It is certainly true that the writings of Chomsky gave the contemporary school of generative grammarians their first impetus. However, Chomsky himself acknowledges his indebtedness not only to his teacher, Zelig Harris, but also to the French grammarians of Port-Royal and to a Spanish physician writing in the sixteenth century named Juan Huarte (Chomsky, 1968).

In his book, **Language and Mind** (1968, p. 23), Chomsky gives a very clear and concise description of the goal of the linguist: Now, remembering the difference between competence and performance, let's discuss how the linguist goes about discovering the rules of the native speaker's grammar.

Consider the following sentence of English:

(12) The student speaks the language.

If you wanted to isolate the constituents of this sentence by dividing it into its major parts, where would you make the first break? Where is the largest and most obvious dividing point? As a native speaker of English, you know that it lies between student and speaks, as shown in (2).

(13) The student / speaks the language.

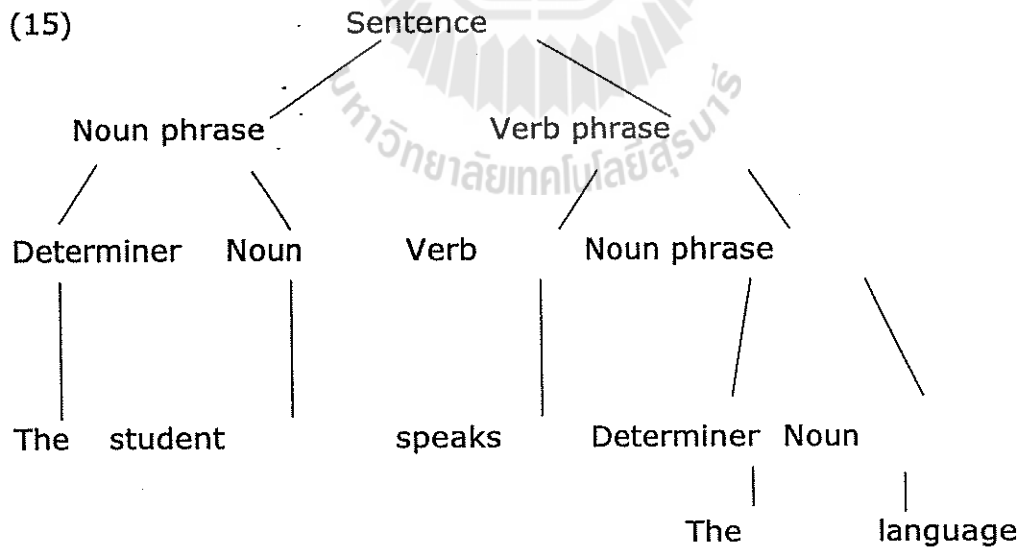
Now, take these two major chunks, one at a time, and apply the same procedure again. If you begin on the right, you get the division speaks/the /language, and you can further break down the word speaks into its two morphemes, speak/s. You can go no farther with this portion; you have reduced it to its smallest meaningful constituents. The left side of the sentence will divide into the/student. You can mark off all the constituents as follows:

(14) The /student/speaks the language.

You now have some idea about what pieces of this sentence are. However, as a native speaker of English, you also know that there are some things very wrong with the schema used in (3) to illustrate these pieces and their relative positions. For instance, (3) would give us to believe that all of the marked-off units have an equal weighting in the sentence; that the word the has exactly the same grammatical status as the word student, and for that matter, that the –s in speaks has the same status as any of the words in the sentence.

The system that will be presented in this section is that associated with transformational grammar. The transformational grammarian would take our English sentence and set it down as a tree structure, as in (4) below:

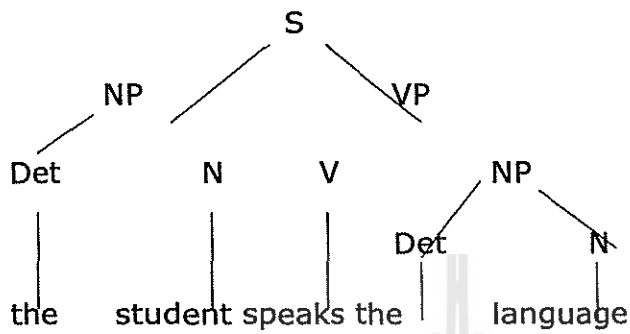
(15)



(Note that in this diagram the verb speak has already been combined with its third-person affix –s. This simplification will not affect the discussion which follows.)

In reading linguistic literature you will not find the tree structures in their full form as show in (4). Instead, they are abbreviated slightly for economy of space.

(16)



In examining tree diagrams you may find some items which are treated in a way you find unfamiliar. For example, you will often find a pronoun listed underneath the noun heading of a tree. This is just a matter of shorthand. The linguist knows that the members of the class of elements which can serve as subject of a sentence or as object of a verb include at least the following: **proper noun, common noun, pronoun, and embedded sentence.**[2] He uses the heading N or NP (usually referred to as the node N or NP) to indicate a member of this class. A fully detailed tree would, of course, specify the differences among these members.

Deep Structure, Surface Structure, and Transformation

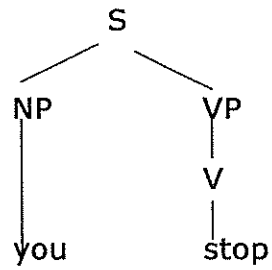
You may remember that in school you were taught that the subject of a sentence like (16) was a curious item called an "**understood you.**" The linguist agrees with the principle being expressed here, but feels that it can be put in a more useful way. The fact that every native speaker of English **feels intuitively** that (16) does have a subject NP, although it isn't there before his eyes, bears out the fact that the rule:

S ⟶ NP VP is correct.

The linguist wants to maintain this rule. If it can possibly be a voided, he does not want to have to say that there are two kinds of English sentence, one containing an NP subject and one without. Not only would such a statement complicate the grammar, it would ignore the fact that every speaker of English "understands" a subject to be present in the second type of sentence.

Instead, the transformational grammarian takes the position that the deep structure of the sentence 'Stop." does contain an NP, like any other English sentence, and looks something like the following:

(17)



In order to get from this deep structure tot the surface structure 'Stop' what is needed is not an additional PS rule, but rather a transformational rule. This transformation will delete the NP 'you' which has been generated by the PSG. It is called **Imperative Deletion.** It is not a PS rule; it takes the result, the output, of a PS rule, and operates upon that output to give us another output, the surface structure.

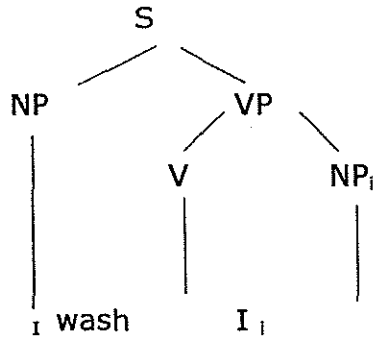
One of the major parts of any transformational linguist's work is showing evidence for the proposals that he makes. This is called motivating a proposal. In the case of the **Imperative Deletion transformation** above, we have seen no motivation for the rule as yet. The fact that the hypothesis of a 'you' in deep structure is in accord with the native speaker's intuitions is fine, but it does not constitute evidence in the linguistic sense.

There is evidence for this deep structure 'you', however. Look at the following sentences.

(18) a. I love myself.
b. We love ourselves.
c. He loves himself.
d. I love yourself.*
e. We love myself.*
f. He loves herself.*

As you can see, the only way a grammatical sentence of this type can occur is for the deep structure to contain a subject NP and an object NP that refer to the same individual. Such a pair of NPs is called a **coreferential pair**, and their **coreference** is indicated in tree structures and sentences by a small subscript i. The deep structure of (18a) would be the following:

(19)



A transformational rule called the **Reflexive rule** will then apply to this deep structure and will replace the second 'I' by the reflexive pronoun **'myself'**. The first 'I' in (19) is called the **antecedent.**

Now, consider once again the pattern shown by the imperative sentence. There is a grammatical sentence of English, **'Wash yourself.'** Since the reflexive pronoun 'yourself' can only result from a deep structure in which there was a coreferential **pronoun ' you'** as its antecedent, we know that the deep structure of **'Wash yourself'** must have had **'you'** as its subject. This constitutes linguistic evidence for the presence of the deep structure subject 'you' in imperatives.

The reflexive evidence also tells us something about the ordering of the two rules **Reflexive and Imperative Deletion.** It tells us that the Reflexive rule must be ordered before the Imperative Deletion rule. If this were not the case, the subject 'you' would be deleted by Imperative Deletion and would no longer be there to serve as antecedent for the Reflexive transformation. The result would be the ungrammatical sentence in (20):

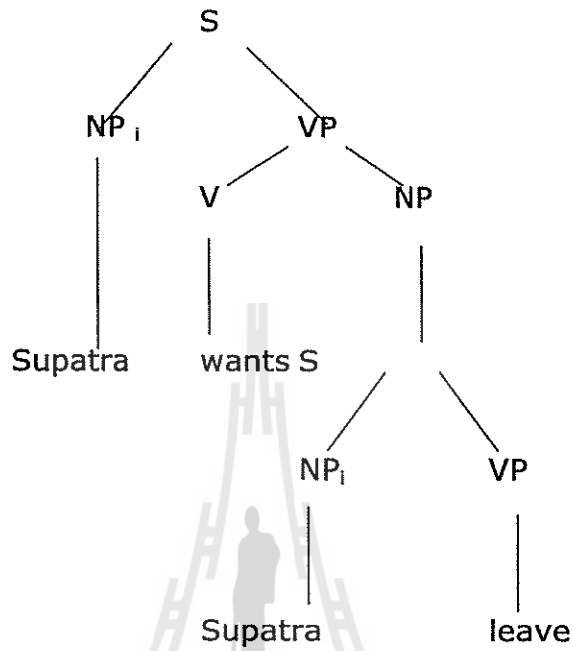
(20) **Wash you.**

There is another transformation of English which depends upon a pair of coreferential noun phrases. This is the transformation called **Equi-NP Deletion.** Consider the following sentence:

(21) **Supatra wants to leave.**

Sentence (21) is the result of a lower sentence, **'Supatra leave (s)'** being embedded in a higher sentence, **'Supatra wants (something)s'**. The deep structure looks like the following:

(22)



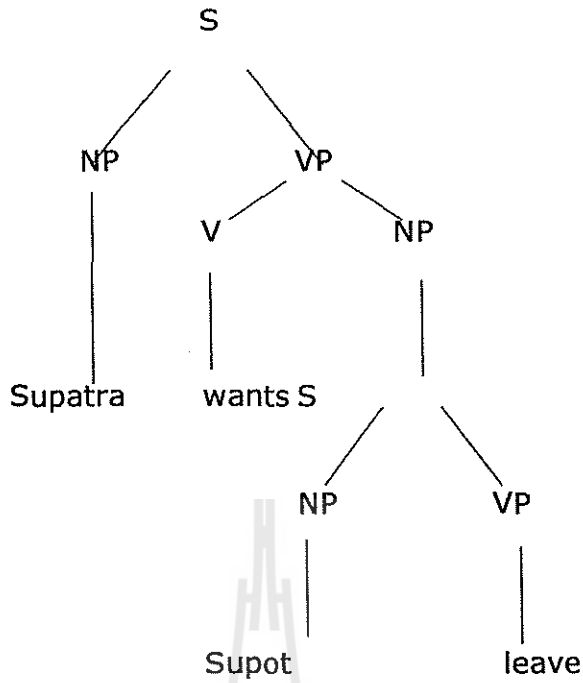
The rules of English syntax forbid a surface structure like the deep structure of (22). That is, there can be no English sentence 'Supatra $_i$ want Supatra to leave'. (That is not to say that such a sentence never can occur; an adult might use such a sentence to a child, or it might occur as a joke or in some other special circumstance. But in normal speech it is not a grammatical sentence.)

There are of course many sentences like the following:

(23) Supatra wants Supot to leave.

But this sentence is the result of a deep structure in which the two NPs are not identical, as in (24):

(24)



In this case the conditions for applications of Equi-NP Deletion are not met, and therefore, the second NP remains.

Some transformations of English are considered to be **optional.** For example, the rule that produces 'Yesterday there was a riot' rather than 'there was a riot yesterday' is entirely optional. The Reflexive transformation and Equi-NP Deletion, however, are not **optional** but **obligatory.** Just as there are no sentences like 'Bill wants Bill to leave', where Bill and 'Bill' refer to the same individual, there are no sentences of the form 'He is washing he' or ' He is washing him' where the two pronouns are coreferential.

The linguist constructing a grammar, therefore, first attempts to identify the meaningful constituents of the language. He puts together a set of Phrase Structure rules from the facts he learns about their possible combinations. Then he determines what transformations are necessary in order to derive all possible surface structures from the resulting deep structures.

Every human being who is a native speaker of a language is walking around with just such a grammar in his head, complete in every detail.

No linguist has yet succeeded in achieving the same perfection and completeness, but that is the goal toward which he works.

Generative Semantics

In early transformational theory, as developed by Chomsky, there was a basic assumption that the grammar was separated into three individual components. Chomsky claimed that there could be no mixing of these three levels of grammar. Thus no syntactic information could be used in phonology, no phonological information in syntax, and so no.

More recently, linguists have begun to question this rigid separation of grammar levels. As a result, generative transformational grammar has split into two theoretical camps-those who still insist upon separation of levels, the Extended Standard Theorists, and those who feel that this position cannot be maintained, the Generative Semantics advocates. In this section, it would be inappropriate to go into the arguments for each of these two positions. However, some of their basic theoretical assumptions can be briefly summarized here.

Generative Semanticists claim that the deep structure must contain all the information necessary for the meaning of the sentence, and that the syntactic structure and the semantic structure are one and the same. Thus, a deep structure tree is assumed to contain all the information relevant to meaning, from whatever source. Extended Standard Theorists, on the other hand, propose surface rules of semantic interpretation to handle phenomena that would otherwise seem to require a mixing of levels. The Extended Standard Theory is associated primarily with Chomsky; among the more prominent Generative Semanticists are George Lakoff and James McCawley.

The theory of generative transformational grammar is a rapidly developing one, and many new and exciting changes can be expected to take place in the next few years. The professional journals of linguistics, for example Language, Linguistic Inquiry, and Lingua, are probably the best sources for the student who wishes to keep abreast of these new developments.

Universal Grammar

It would enormously simplify the linguist's work if all languages had the same syntax, and the differences were only to be found in the lexical items (a common misconception of beginning foreign language students). If you consider closely related languages, it often appears at first as if this might be a workable idea. For example:

(25) a. John speaks French.
b. Pierre parle anglais.
c. Maria habla espanol.

These three sentences from English, French, and Spanish, can all be generated by the PS rules S $\longrightarrow$ NP VP and VP $\longrightarrow$ V NP. Since these

languages are closely related historically, it is not surprising to find that they share some rules in common. However, consider the following set:

(26) a. He speaks French.
b. I parle anglais.
c. Habla espanol.

Here, even in these simple sequences, the world-for-word surface correspondence of structure with only the phonological shape of the words differing breads down. If we move to more complex sentences, the situation becomes even worse, as in (27):

(27) a. He doesn't speak French.
b. II ne parle pas anglais.
c. No habla espanol.

When a linguist uses the term "universal grammar" he is not referring to such correspondences as those shown in (25). What he refers to, instead, is those universal properties that are to be found in every human language. Two of these are, of course, the processes of negation and interrogation and interrogation. No human language lacks these two properties, and linguists feel that the ability to comprehend both is a part of the innate equipment of the human brain. It is hard to imagine how a parent might go about explaining to a child what asking a question meant, it the child's mind was literally empty of that concept.

The linguist is interested in determining the complete set of properties which characterize the syntax of human language, and then in explicitly stating the ways different languages lexicalize (express in words) those properties.

One of the most essential properties of human language is recursion. Because of recursion there can be no such thing-in terms of competence-as a longest possible sentence. Consider the following:

(28) a. Warin is a very beautiful woman.
b. Warin is a very, very beautiful woman.
c. Warin is a very, very, very beautiful woman.

As you can see, we could go on indefinitely adding new instances of very to (28a), as if at that point there were a loop in the sentence that we could follow as many times as we liked.

Sentences like (28c)are of course not very common in everyday speech, although they are perfectly possible. Another type of a sentence that shows recursion is perhaps more common. Consider the following:

(29) Jack says that Warin is beautiful.

To this sentence we can now add a potentially infinite number of additional embedded sentences, as shown is (30):

(30) a. Jack says that Warin is beautiful.
b. Jack says that Bill knows that Warin is beautiful.
c. Jack says that Bill knows that Martha think that Warin is beautiful
d. Jack says that Bill knows that Martha think that Phil agrees that Warin is beautiful.

In performance terms, of course, there is a longest sentence, because the human speaker would eventually collapse with exhaustion or lose his voice. Bit in theory you could always add one more embedded sentence, one more instance of very, or simply say *and* and go on with additional lexical material.

No human language lacks the property of recursion. It is part of universal grammar and thus part of the definition of what constitutes a human language.

The specialist in syntax cannot take anything for granted when he considers the surface manifestations of grammatical properties. Each time he says to himself, "There could not be a language that did not have a ..." he is in for trouble. For example, the Eskimo language appears to have no first-person pronoun. Some languages have a plural, others manage quite well without. The idea of "noun" and "verb" varies widely from language to language. In the midst of all this diversity, in surface terms, another quotation from Chomsky (Language and Mind, p. 76) seems appropriate.

The linguist working in syntax studies new languages, as well as the more familiar ones, in order to add ever more data to the information we now have about languages as a whole. It is his hope that this will enable us one day to make clear statements about the content of universal grammar and thus to specify exactly what conditions must be met for some group of vocalizations to be considered a human language; he also hopes to specify what must be the basic language equipment of a newborn human being.

Evaluation of Grammars

In this final section, we attempt to provide a framework within which arguments about the adequacy of grammars, and of the linguistic theories that underlie them. Let's take a look at 3 levels of grammatical adequacy.

1. Observational Adequacy

Chomsky has himself made a number of interesting points about the evaluation of grammars, and the different levels of adequacy that grammars can attain. He argues that the minimum level a grammar should aim for is that of ***observational adequacy***, which is attained by any grammar that gives 'a correct account of the primary linguistic data '. There are two ways of interpreting **'primary linguistic data'**. For a child learning its first language, they would be the finite set of utterances he has actually heard. These would include both grammatical and ungrammatical utterances, and giving a correct account of them would involve some means of distinguishing the grammatical from the ungrammatical, indicating how they are pronounced and what they mean. An alternative, and ultimately rather more interesting, view of the sentences of a language – whether the child's or the adult's – and that giving a correct account of them will involve some means of indicating that they are grammatical, as well as how they are pronounced and what they mean. Since our ultimate aim in constructing grammars is to give an account of human linguistic knowledge and its organization, and since we have seen that such knowledge seems to involve rules, we shall interpret observational adequacy as applying mainly to grammars which incorporate rules generating infinite sets of well-formed sentences and relating their pronunciation to their meaning.

An observationally adequate grammar for most speakers of English would record the following sorts of information:

(1a-c) are items of the vocabulary;(1d-e) are not:

(1) a. brook, crook, look
b. photograph, photographic, photography
c. grocer, grotesque, copper, copernicus
d. *blook, *clook, *slook
e. *bnook, *lrook, *dlook

(2a-c) are grammatical sentences (2d-f) are not:

(2) a. Which men did you see Bill with?
b. The girl I like is clever.
c. Did that surprise you?
d. *Which men did you see Bill and?
e. *The girl likes me is clever.
f. *Did that he lift surprise you?

(3a-c) are meaningful sentences; (3d-f) are not:

a. On the table, I found a letter.
b. John stands up for himself and others.
c. I understand why you left.
d. *Between the table, I found a letter.
e. *John behaves himself and others.
f. *I understand whether you left.

The most elementary type of disagreement about whether a grammar is observationally adequate or not is disagreement about the data it attempts to describe. For example, someone might claim that he possesses one if the vocabulary items in (1d-e), or considers one of the sentences in (2d-f) grammatical, or understands one of the sentences in (3d-f). Once it is realized speakers of English, many such disagreements will be seen as essentially trivial. To point out that a grammar designed to cover a given set of data fails to work for a different set it is of no particular interest, as long as a grammar which dose cover this new set can be constructed.

In short, the grammaticality judgements of speaker – hearers must be explained in some terms by a linguist who is concerned with the psychological reality of linguistic knowledge, however, he is not committed to accepting every judgement at face-value; he may choose to ignore some of them in writing a grammar, and he id likely to make this choice for one of two reasons. Either there is a clear non-linguistic explanation, and he has no need to account for them in the grammar; of there is no clear non-linguistic explanation, but it is impossible to account for them within the type of grammar he believes to be correct. Enough such cases might, of course, force him to revise his conception of grammar. But a linguist who abandoned all hope of ever writing a grammar simply because of uncertainty about the grammatical status of (4b) would be rather irrational individual.

Though a grammar which reached the level of observational adequacy would be of considerable interest for the linguistic data it would provide, it might be of rather less interest to those concerned with the connection between grammar and mind. It seems clear that there could in principle be many different observationally adequate grammars of a language, each generating all and only the set of well-formed sentences and providing them with phonological and semantic representations, but each operating with different rules and different theoretical constructs. If the ultimate aim in writing grammars is to reconstruct the linguistic knowledge of the native speaker-hearer, clearly not just *any* observationally adequate grammar will do.

2. Descriptive Adequacy

Chomsky argues that grammars should attempt to reach the higher level of ***descriptive adequacy,*** at which a correct account is given, not just of the primary linguistic data, but also of the native speaker-hearer's own internalized grammar. Such a grammar would record the significant linguistic generalizations about a language, and thus give an insight not only into the language under investigation, but also into the minds of those who spoke it.

We saw in (1) above that an observationally adequate grammar of English would merely record the existing vocabulary items and reject all

non-existent ones. A descriptively adequate grammar would have to distinguish among the non-existent ones, recording the fact that certain of these are merely missing by accident, and could be called into use of the vocabulary expanded, whereas others are necessarily absent, because they violate the underlying principles of the language. The items in (1d) and (6a) fall into the first class, and those in (1e) and (6b) into the second:

(6) a. *clook, *lom, *marp, *ager
b. *bnook, *hlom, *msarp, *aaaaager

We saw in that a grammar which can distinguish examples like (6a) and (6b) correctly would have to possess rules specifying the phonological content of possible, as will as actual, words. To go beyond the level of observational adequacy, the grammar of English would have to incorporate some such rules.

Another case in which speakers of English seem to know more than the mere correct pronunciation of actual words is where there is a predictable relationship among the pronunciations of related words. For example, there is a predictable relationship among the items of (1b) above, but *not* among the pairs in (1c). To take another example, consider the stress patterns on the following pairs, of which the first member is a noun and the second a related adjective:

(7) a. te'legraph telegra'phic
b. te'lescope telesco'pic
c. au'tomat automa'tic
d. ae'sthete aesthe'tic

An observationally adequate grammar of English would merely have to state the correct stress-pattern for each of the words in (7). Moreover, since the vocabulary of any speaker is finite, this could be done by simple listing of the correct stress for each word in the lexicon. However, a grammar which merely used listing, although it would be observationally adequate, would be able to give no account of the fact that there is a clear relationship between the stress patterns in (7a-d). Stress in the adjective is regularly attracted towards the syllable immediately preceding the adjective-forming suffix *-ic.* Moreover, speaker treat this attraction as rule-governed: given a noun and told that it had an adjective formed in *-ic*, they would automatically assign the correct stress-pattern to this newly constructed adjective:

(8) a. pho'toscope photosco'pic
b. me'tronome metrono'mic
c. a'gronome agrono'mic

In the case if the syntactic component, we have seen that even a grammar that achieves observational adequacy will have to incorporate rules, since the syntax of an infinite set of sentences can only be described in rule-governed terms. The difference between observational and descriptive adequacy in this area would lie in a difference between the constraints imposed on setting up the rules involved. An observationally adequate grammar could use any arbitrary set of rules which produced the correct output; a descriptively adequate grammar would have to use rules which produced the same set of sentences, but also captured the significant relationships among them.

For example, there is a significant relationship among the constraints that have to be placed on certain syntactic rules of English to prevent them from generating ungrammatical sentences. The rule of Topicalization optionally moves an NP to the front of its sentence, relating (9a) and (9b):

(9) a. I want to invite that boy to my party.
b. That boy, I want to invite to my party.

This rule must be prevented from moving an NP out of a coordinate NP and NP structure: otherwise it will relate (10a) to the ungrammatical (10b):

(10) a. I want to invite this girl and boy to my party.
b. *That boy, I want to invite this girl and to my party.

An observationally adequate grammar of English would merely have to constrain the rule of Topicalization so that it could not extract an NP from such a co-ordinate structure. In fact, exactly the same constraint would have to be placed on other rules: on the rule of Wh-Movement, for example, which relates (11a) to (11b):

(11) a. Mary met some tourist in the street.
b. Which tourist did Mary meet in the street?

Without this constraint, *Wh*-movement would relate (12a) to the ungrammatical (12b)

(12) a. Mary met a policeman and some tourist in the street.
b. *Which tourist did Mary meet a policeman and in the street?

In fact, this same constraint on extraction of an NP from within a co-ordinate structure would have to be placed on a wide range of movement rules in English if the grammar is to achieve observational adequacy.

The justification of particular analyzes and particular grammars has thus been shifted back a step, and turned into the question of how to justify a general theory of language, a universal linguistic theory, itself. We have argued that a particular grammar is to be judged adequate if it fits in with significant generalizations we can make about the grammars of all languages; but how do we judge these higher-level generalizations themselves? As we have seen, some of them may be justified by showing that only they permit an observationally adequate grammar of some particular language to be constructed. In other cases, though, we may find that two alternative universal generalizations may be made, and we have no way of choosing between them. It may turn out, however, that only one of these generalizations is consistent with other generalizations which are independently motivated by considerations of observational adequacy of the sort we have just mentioned. In that case, this generalization is clearly to be retained. Failing this, the only further resort would be to non-linguistic considerations: perceptual, functional, neurological, psychological and so on.

3. Towards Explanatory Adequacy

In concluding this section, we would like to raise a separate, though related issue. Suppose that we have managed to produce a universal linguistic theory which incorporates all the significant generalizations about language that there are to be made. What happens of there is more than one grammar available foe a given language, which is both observationally adequate and consistent with the general theory of language? By definition, all such grammars will be descriptively adequate, and Chomsky allows for the Possibility that there could be more than one descriptively adequate grammar for a single. In fact, he argues that in addition to a series of generalizations about the nature of language and grammar a universal theory of language must also contain an *evaluation measure* which is precisely designed to select one out of the series of alternative descriptively adequate grammars for a particular language, and evaluate it as the best grammar for that language. A universal linguistic theory which contains such an evaluation measure he calls *explanatorily adequate,* because it would explain why the grammars that children construct are as they are.

Chomsky allows that it is logically possible that only one descriptively adequate grammar for a language might be available – that only one such grammar might be consistent with the descriptively adequate universal theory of language – he has always insisted on the importance of and evaluation measure, and he has always insisted that the attainment of explanatory adequacy was the highest goal which a linguistic theory could achieve. He has also suggested that the range of alternative descriptively adequate grammars are *notational variants* of each other: devices for saying the same thing in different ways, rather as (19a) and (19b) do:

(19) a. John kissed his sister.

b. John pressed his lips to those of his female sibling in token of affection.

And of course the difference in length between (19a) and (19b) suggests an obvious ground for choosing between notational variants: that of simplicity. In some intuitive sense, (19a) is a simpler way of expressing a particular claim than (19b) is. If we regarded the evaluation measure as some measure of the simplicity or grammars, we could make sense both of the idea that there one descriptively adequate grammar, and of the idea that it is possible for both the child and the linguist to choose among them.

Chomsky has also repeatedly emphasized that there is no antecedently given notion of simplicity which linguists can merely adapt to their own purposes. How could one choose between two grammars, one of which contained more but shorter rules, the other of with contained fewer but longer rules; one of which had a small syntactic component and a large set of semantic and phonological rules, others organized ways; one of which had few rules but many conditions on rules, other of which had large numbers of rules but no conditions on rules, and so on? Quite apart from this, it is standard practice for linguists to work on fragments of grammar rather than whole grammar; and it would clearly be nonsensical to claim greater simplicity for one fragment of a grammar over an alternative without being able to see what repercussions these alternative fragment have on the remainder of rules still to be formulated.

It seems, then, that Chomsky is placing an enormous amount of emphasis on constructing an evaluation measure for grammars. This evaluation measure is to be added to a universal linguistic theory which already captures all the significant, empirically motivated generalizations to be made about the nature of language and grammar. It thus seems that it cannot be motivation by any facts of language; nor can it be justified on independent, non-linguistic grounds. It is for this sort of reason that the whole notion of explanatory adequacy, and the aim of achieving it, have been challenged on many occasions, by both linguists and others.

CHAPTER SIX

Psycholinguistics and Language Teaching

The psychology of Language

We speak of *knowing* a language. Knowing something implies having learned it or discovered it; we aren't born knowing things. But we can scarcely speak of knowing some sort of behavior such as walking; in such a case we speak of *knowing how* and *learning how*. There would be something rather odd about asking someone if he was learning *how* to speak French. The implication of such a question would be that it was a matter of muscular control, of 'getting your mouth round' some difficult sounds. The trouble is that the term 'behavior' does not seem to do justice to language. This is because behavior is usually thought of as something essentially physical and observable, and that, while much language has overt physical and observable, and that, while much language has overt physical manifestations - movements of vocal organs with the production of sound, and movements of the hand with the production of traces on paper - any notion that this is all there is to language is obviously unsatisfactory.

Thus, understanding speech has no obvious overt physical correlatives. This is why it is so difficult, without using language itself, to know if someone has understood us. Most people would feel that a great deal of language activity goes on 'inside the head', and that because this is unobservable by direct means, it does not mean that there is nothing going on. On the other hand, no one would deny that observable, measurable physical behavior is the *data* with which the psychologist, as also the theoretical linguist, must work. The differences we find between the various psychological accounts of language derive to a large extent from the different philosophical approaches which their proponents adopt to the scientific method, their different attitudes to the role of data.

The principal concern of the psychology of language is to give an account of the psychological processes that go on when people produce or understand utterances, that is, the investigation of *language performance*. But one of the ways of investigating this is to try and understand how people acquire such an ability. This is the study of *language acquisition*. It is important, if we are not to prejudge the issue, to make a distinction between *language acquisition* and *language learning*. Language normally starts at a later stage when language performance has already become established and when many other physical and mental processes of maturation are complete or nearing completion.

Language performance and language acquisition, then, are the two principal concerns of the psychology of language, or to use the more recent term for these studies, psycholinguistics. The much intensified study of psycholinguistics in recent years has produced a considerable amount of literature and some significant advances in our understanding of language acquisition. The same cannot be said about the study of language learning. Surprisingly little fundamental research has been conducted into the processes of learning a second language. The consequence has been that most theories in this field are still extrapolations from general theories of human learning and behavior or form the recent work in language performance and acquisition. This is not to say that there has been no valuable research on language *teaching*. But this has been concerned with the evaluation of different teaching methods and materials, for example, the use of language laboratories, the use of language drills, the teaching of grammar by different methods.

Now, such research is difficult to evaluate for two reasons. First of all, experiments in language teaching suffer from the same set of problems that all comparative educational experiments suffer from. It is virtually impossible to control all the factors involved even if we know how to identify them in the first place, particularly such factors as motivation, previous knowledge, aptitude, learning outside the classroom, teacher performance. Consequently the conclusions to be drawn from such experiments cannot, with confidence, be generalized to other teaching situations. The results are, strictly speaking, only valid for the learners, teachers and schools in which the experiment took place. Secondly, it is not possible to draw any general conclusions about the psychology of language learning from 'operational' research into language teaching.

The discovery that learners do or do not learn, or learn better or worse, under certain conditions, does not tell us *directly* about the process of learning itself. It is true it may give us 'hunches' which could be followed up by experiments in learning. For example, we might note that a teaching method which included practice in translation produced learners who were better at translation than a method which did not. (This is not by any means as obvious result, incidentally.) But the result of such an experiment in teaching would tell us that 'practice', something which could be rigorously de fined and described as a *teaching procedure*, is relevant to teaching translation. It would not tell us, however, what is meant by 'practice' as a *learning process*. Similarly, we might find that drills involving 'imitation' promoted learning. Imitation can be rigorously described as a teaching procedure. But this does not tell us what this sort of behavior is in the learning process. Is it just a question of repeating the physical movements which produce the same set of sounds - a sort of 'parroting', or is it some much more complex process going on 'inside the learner'? Ultimately, of course, we need to be able to say what procedures are a *necessary* condition for certain learning processes to take place. We

can, however, never say that certain procedures are a *sufficient* condition for certain processes to take place. You can take a horse to water, but...

It is, then, most important to maintain a distinction between language teaching and language learning. And of these two it is the learning processes which have priority for investigation. Until we have a much better idea of what these are we cannot, on a systematic and principled basis, create the necessary conditions for optimal learning; we can only do what we have largely been doing, that is, work on a hit-and-miss basis. It is as well to admit that at the present time we lack any clear and soundly-based picture of the learning process, and that our teaching procedures are founded, if they are founded on anything other than trial-and-error, upon general psychological theories of learning, and on what extrapolations may be speculatively made from theories of language performance and language acquisition, and from the little experimental laboratory-scale experiments with second language learning.

Language acquisition and language learning

There has been no lack of people who predicted that there would be nothing to learn from a study of language acquisition which could be of relevance to language learning. They pointed out that there were so many differences in the conditions under which learning and acquisition took place that there could be no transfer from one to the other. Language acquisition takes place during the period when the infant is maturing physically and mentally, and necessarily there must be some connection or interaction between the two processes:

We must assume that the child's capacity to learn language is a consequence of maturation because (1) the milestones of language acquisition are normally interlocked with other milestones that are clearly attributable to physical maturation, particularly stance, gait, and motor coordination; (2) this synchrony is frequently preserved even if the whole maturational schedule is dramatically slowed down, as in several forms of mental retardation; (3) there is no evidence that intensive training procedures can produce higher stages of language development, that is, advance language in a child who is maturationally still a toddling infant. However, the development of language is not caused by maturation of motor processes because it can, in certain rare instances, evolve faster or slower than motor development (Lenneberg, 1967,p.178).

Secondly, the *motivation* for learning in each case cannot be equated. Indeed it is not clear in what sense we can use the term *motivation* in the case of language acquisition. Congenitally deaf children develop a means of nonverbal communication which appears to satisfy their needs at least in the earlier stages, so that it does not appear that young children *must* specifically acquire *language* to cope with their environment. Yet we observe that all children whose physical and mental capacities lie within what we can regard as a normal range do learn

language. All we can say is that 'it comes naturally' and not as a result of the discovery of its practical utility.

Thirdly, the data from which an infant acquires language are different. He is exposed to samples of the language on an unorganized basis. His data are not just the utterances which are addressed specifically to him, but any language he is exposed to. Furthermore, While the utterances which are addressed to him may be modified or simplified in some unconscious way by the adults who speak to him (Snow, 1972), he cannot be said to be exposed to carefully planned or logically ordered set of data - he is not submitted to a 'teaching syllabus' in any ordinary sense of the word. If there is a learning 'program" then it is an 'internal' one, a product of his normal cognitive development. It is indeed the main object of studies of child language acquisition to discover what the nature of this 'program" is.

Fourthly, while people do learn second languages without being taught, that is, without having the language data organized for them by some teacher, second language learning for most people takes place under formal instruction: the exceptions are those people who pick up a foreign language in the country they happen to visit or live in. Now, in the case of language acquisition, while the language data to which the infant is exposed are certainly not organized, it is not clear to what extent he is exposed to 'teaching', if by that we mean a particular sort of behavior by parents and others whose object is to promote the child's linguistic development. There are many reactions to a child's speech on the part of adults which have apparent counterparts in the classroom, but this does not mean that the parent is behaving in this way *in order* to teach the child. For example, a parent will often repeat the adult form of what he conceives to be what the child has attempted to express in his language:

CHILD Table head
ADULT No: the head hit the table

This looks like a form of 'correction'. An adult will often 'expand' a child's two or three word utterance into a full adult form. Or an adult may simply query a child's utterance by some such expression as *En*? or *What?* This could be interpreted as a directive to repeat what he has just said: however, it appears that it is more often interpreted by the child as a request to paraphrase his utterance, as this recorded exchange shows:

MOTHER: Did Billy have his egg cut up for him at breakfast?
CHILD: Yes, I showed him
MOTHER: You what?
CHILD: I showed him
MOTHER: You showed him?
CHILD: I seed him.
MOTHER: Ah, you saw him.

CHILD: Yes, I saw him.

It is true that some adults do deliberately attempt to correct a child's non-adult utterances by some such remarks as: *No, say*...But such attempts do not by any means always have the intended result, as the following example shows:

CHILD: Nobody don't like me.
MOTHER: No, say: nobody likes me.
CHILD: Nobody don't like me.
(Eight repetitions of this dialogue)
MOTHER: Now listen carefully, say: nobody likes me.
CHILD: Oh, nobody don't likes me.
(McNeill, 1966,p.69)

Or the adult may say: *That's not a..., it's a...* when a child makes a referential error.

Then there is a role of practice and imitation. That procedures which go under these names have always played a part in language *teaching* needs no mention; but, as has already been suggested, it is difficult to identify these unequivocally with processes in language learning or acquisition. Certainly the parent or adult, unlike the teacher, rarely attempts to get the child to imitate a spontaneous adult utterance and certainly never requires a child to 'practise' adult forms off speech. Where 'imitation' occurs, it is the child who selects what to 'imitate'. Whether imitation and practice are indeed processes of language acquisition is a matter of debate amongst those studying child language acquisition. The belief that imitation and practice are the fundamental processes whereby a child acquires language is, of course, a very ancient one, but it has only recently been incorporated into a specific language learning theory as the process of learning 'verbal responses'. In this theory the function of 'imitation' is regarded as the 'acquisition' of a response, and the function of 'practice' is to 'strengthen' it, i.e. to make it more likely to occur or render it more readily 'available'. The difficulty here is in the definition of a 'verbal response'. Is it 'formal' or 'functional'? We know that there is no one-to-one relation between these aspects of an utterance. As we have seen, children, like adults, rarely hear a formally identical utterance twice. How then are we going to reconcile satisfactorily the notion of a response as something which is imitated and practised with the fact that utterances are rarely formally identical? If, indeed, something is imitated and practised it must be something pretty abstract.

A careful study of infants' 'imitation' of adult utterances, which on some counts has been as high as 10 per cent of the child's recorded utterances (Ervin, 1964; Slobin, 1966), has shown that a child does not, in fact, spontaneously imitate a form it cannot already produce from the resources of its own grammar, and resists attempts to make it imitate

forms which it cannot generate spontaneously. This suggests strongly that the child does not *acquire* new language forms by imitation, and that where imitation apparently occurs it fulfils some other function than learning. What about practice? The child's tendency to go through routines which resemble 'classroom' drills is well attested:

Take the monkey Monkey [repeated three times]
Take it *That's a* [repeated twice]
Stop it *That's a Kitty*
Stop the ball *That's a Fifi there*
Stop it *That's teddy bear and baby*
(Weir, 1962)

In the light of what has just been said it may be doubted whether utterance sequences of this sort are practice in the sense of 'strengthening responses'. They may well be just another form of 'verbal play' fulfilling an *imaginative* speech function - the exercise of linguistic skills for their own sake (see chapter2), i.e. a *use* of language, not a strategy of language learning. This is all the more likely since such practice sessions normally take place in the absence of adults, or at least unmonitored by them. We can compare this with the unmonitored 'practice' in second language learning, the learning value of which is in serious doubt. If, however, we do admit the role of practice in language acquisition, we must also allow the possibility that the responses being practised may be 'sub-vocal', since there is evidence from the study of psychotic children that, after appearing to have developed little or no language behavior, they suddenly, after treatment or spontaneously, begin to talk fluently and at the stage of development appropriate to their age. A similar phenomenon has been observed with second language learners.

The main argument against language acquisition and second language learning having anything in common is that language learning normally takes place after language acquisition is largely complete. In other words, the language teacher is not teaching language as such, but a new manifestation of language. The language learner has already developed considerable communicative competence in his mother tongue, he already knows what he can and cannot do with it, what some at least of its functions are (Halliday, 1969). On this view, what the language teacher is doing is teaching a new way of doing what the learner can already do. He is attempting, therefore, to extend, to a greater or lesser degree, the behavioral repertoire, set of rules or ways of thinking of the learner.

This discussion has listed a number of features in which the circumstances of first and second language learning are different, but note that it is the *circumstances* (learner, teacher and linguistic data) in which learning takes place that are different. It does not necessarily follow for that reason the *processes* of learning are different. The processes of

relearning something are not necessarily different from the original learning process, and indeed, inasmuch as the child's grammar is constantly changing and developing, he could be regarded as in a constant process of relearning, and yet no one has suggested that the processes whereby a child acquires his first language change as he advances.

The main argument in favor of assuming that language learning and language acquisition are different processes is that the language learner is a different sort of person from the infant ; that there has been some *qualitative* change in his physiology and psychology at some point in his maturation process; and that these changes in some way inhibit him from using the same learning strategies that he used as an infant, or make available to him some whole new range of strategies which he did not possess before. These notions are all included within what has been called 'the critical period' for language acquisition.

Lenneberg (1967) summarizes what is meant by the 'critical period':

Language cannot begin to develop until a certain level of physical maturation and growth has been attained. Between the ages of two and three years language emerges by an interaction of maturation and self-programmed learning. Between the ages of three and the early teens the possibility for primary language acquisition continues to be good; the individual appears to be most sensitive to stimuli at this time and to preserve some innate flexibility for the organization of brain functions to carry out the complex integration of sub-processes necessary for the smooth elaboration of speech and language. After puberty, the ability for self-organization and adjustment to the physiological demands of verbal behavior quickly declines. The brain behaves as if it had become set in its ways and primary. Basic language skills not acquired by the time, except for articulation, usually remain deficient for life. (p. 158)

The evidence for the critical period for the acquisition of language is very strong, drawn as it is from the extensive study of the mentally subnormal and from studies of aphasic disturbances. Whether the milestones in language acquisition correlate with other milestones in the child's development, such as learning to stand, walk and perform other tasks involving coordinated motor skills is still an open question, but there is some evidence that, if the latter developments are delayed for some reason, so are the developments in language, and just as the development stages in these other respects cannot be brought forward by training or teaching, nor can the regular development of language be accelerated. This does not mean, of course, that other sorts of human learning also are subject to a critical period. We go on learning many skills and acquire many other abilities in late adolescence, and indeed most of our learning capacities seem to go on unimpaired until later life. And

obviously people *do* learn second languages at all periods in later life, though their ability to acquire a native pronunciation seems to be limited, at least for most learners, to the 'critical period'. But learning a language is not just learning a pronunciation.

Apparently, we acquire language during a period when our brains are in a particular stage of their development. If language is not acquired then, there is some evidence that it is very much more difficult to acquire it at a later stage. If, however, we have acquired language, i.e. already possess verbal behavior, then there does not seem to be any psychological or physiological impediment to the learning of a second language, if we want to . It cannot be too strongly stressed that 'learning a second language' is *not* the same as 'acquiring language again'. When we acquire language in infancy the particular 'outward' form it assumes is that of the dialect of the society into which we happen to be born.

English infants acquire language in its English form, French infants in its French form. 'Learning a second language', after we have acquired verbal behavior (in its mother-tongue manifestation) is a matter of adaptation or extension of *existing* skills and knowledge rather than the relearning of a completely new set of skills from scratch. We can con clude from this not that the process of acquiring language and learning a second language must be different, but rather that there are some fundamental properties which all languages have in common (linguistic universals) and that it is only their outward and perhaps relatively superficial characteristics that differ; and that when these fundamental properties have once been learned (through their mother-tongue manifestations) the learning of a second manifestation of language (the second language) is a relatively much smaller task.

Performance Models

As generally known, two problems with which psycholinguistics was principally concerned were *language acquisition* and *language performance*. Miller (1970) has described the latter as 'The psychological processes that go on when people use sentences.' The term *use* here is, of course, neutral as between receptive and productive activity or skills. It has become customary in discussions amongst language teachers to talk about the inculcation of language skills. These are often identified as *speaking*, *hearing*, *writing* and reading. It requires, however, very little reflection to realize that this categorization is an entirely superficial one. These so-called are categories of more or less overt linguistic behavior. They classify observable physical acts, but neither describe nor explain what is going on inside the head of the language user. It is also customary to group these 'skills' into two sets, 'active' and 'passive', thus implying that there is something in common between speaking and writing, on the one hand, and hearing and reading on the other.

The names 'active' and 'passive' are justified only inasmuch as the 'active skills' have clear and unmistakable physical manifestations - movements of lips or hands, producing sounds or marks on paper - while the 'passive skills' have no such unambiguous overt signs. The holding of a book and the movement of the eyes or the inclination of the head and occasional nods and smiles are scarcely sufficient evidence that language activity is going on; they are all too easily simulated. For these reasons it is preferable to speak of productive and receptive performance.

Before looking at what component abilities are involved in productive and receptive performance, let us consider whether the language teacher is justified in talking about his task in terms of 'teaching speaking, hearing, writing and reading'. One answer is that he is not justified in doing so because his Students can normally already do all these things in their mother tongue. It is true that there are second-language teaching situations where the Students have not yet learned to read and write, and where the teaching of these activities goes on at the same time as the teaching of the second language. Notice also that learning to read and write *presupposes* (at least, in all normal people) the ability to speak and hear; in other words, it requires the possession of some verbal behavior. Thus the language teacher is concerned *not* with teaching, speaking and hearing, etc. but *speaking in French*, or *reading German* or *hearing Italian*.

This is only to repeat what was said at the end of the last section: the teacher does not teach language skills from scratch but rather modifies or extends these skills in some perhaps relatively superficial fashion. To take just the case of reading aloud, for example, there are recorded cases of children who have been able to read aloud to blind or illiterate grandparents (whose mother tongue was different from that of the child) in a foreign language they did not 'know' - at least to the apparent satisfaction of the grandparent. Most of us can 'have a stab' at reading aloud some unknown foreign language, so long as it has a roman alphabetic script. The chances are that an intelligent and literate native speaker will be able to make something of our performance.

This last illustration shows clearly that reading involves several different levels of activity or different kinds of skill. When we read to ourselves we are not just 'mouthing' vocally or sub-vocally a series of sounds (or 'barking at print' as it has sometimes been called), we are 'processing' the written material in a number of highly complex ways. Any normal meaning of reading includes (besides just recognizing the letters) at least recognizing the sentences and understanding the message.

The first thing one must be able to do in the case of speech is hear it. This is obvious. But strictly speaking, hearing is not 'doing anything'; it is something which happens to you. So it would perhaps be better to say 'listen', which implies 'giving attention' and is under voluntary control. It is

an *act* - or better, activity - and involves 'directing one's awareness'. One must be able, in order to process speech or any other potentially informative noises which come to one footsteps, car engines, bird song, music - to discriminate various degrees of *intensity* (or loudness), differences in pitch, duration and more particularly *changes* in intensity, pitch and duration. One must be able to detect differences in the *quality* of sound, the sort of discrimination which enables us to tell the sound of an oboe from that of a flute. There is obviously nothing specifically linguistic about these abilities. We need to develop these skills in order to make sense of the 'world of sound' in general. When speaking, we need the skill to control our organs of speech in such a way that all these 'parameters' of sound are under our control, and to do this we have to 'monitor' our own production - this process is called *auditory feedback.*

The reason that the speech of a person who has become deaf often takes on certain peculiarities of sound is that the auditory monitoring process cannot operate. Deaf speakers have to rely on a rather less satisfactory and precise feedback mechanism to monitor their performance - information about the state of muscular tension of their organs of speech - *proprio-ceptive feedback.* Anyone who has undergone experiments in delayed auditory feedback - where information about the sounds he is making is delayed electronically by a fraction of a second - will know what havoc this can wreak on his ability to speak fluently and coherently. It tends to reduce the subject to a gibbering idiot. Similarly, anyone unlucky enough to possess a car with a virtually silent engine knows how difficult it makes decisions about changing gear. Good drivers depend very much on auditory feedback from the engine, unless they possess 'visual' feedback from the tachometer and speedometer.

The next set of operations in processing speech is at least partly linguistic. We can call it *recognition.* Its investigation falls within the general field of the psychology of perception. Perception is not just passive bombardment with sense stimuli, but an active process. Sense stimuli are fundamentally ambiguous, as Gregory (1970) puts it:

> Perception involves a kind of inference from sensory data to object-reality. Further, behavior is not controlled directly by the data but by the solutions to the perceptual inferences from the data....So perception involves a kind of problem-solving-a kind of intelligence. (p.30)

Problem solving involves, in its turn, the making or possession of hypotheses against which the evidence of senses is tested. These perceptual or 'object-hypotheses' are sometimes known as *perceptual schemata.* They are a sort of internalized abstract 'model' of entities in the world outside, including sounds, of course. Such object-hypotheses are learned and stored. We recognize some set of sensations as a car because we possess an object-hypothesis of what we call 'a car' and we do it by some sort of *matching* process between our schema and the incoming

sensations. Recognition, then, is an active cognitive process and the schemata are learned inductively. Recognizing the sounds of speech involves such a cognitive process. When we 'listen' to a foreign language, we can distinguish variations of pitch, intensity, duration and quality in the noises we hear, if we pay attention, but we cannot 'recognize' them *as sounds* except inasmuch as we can 'match' them with some already learned schemata We 'hear' foreign speech in terms of the perceptual schemata of our own language. Fundamentally this is why we pronounce foreign languages with an accent, at least until we have set up a new set of object-hypotheses. The reader will notice that there is a connection between the psycholinguistic process of 'recognition' with what we called in chapter 5 the secondary articulation of language.

The process of 'recognition' however, extends beyond the level of sounds, intonation patterns and rhythms of language to groups of sounds or lexical words. We also store object-hypotheses of words and even perhaps groups of words which habitually occur together (see the later discussion of habits). This is the theoretical justification for the 'look-say' method in the teaching of reading.

However, the processing of complete utterances must involve some other additional operations. The 'sounds' and 'words' of a language are finite in number; the number of sentences is indefinitely large and rarely do we hear the same sentence twice. There is no possibility that we can ever arrive at developing and storing a schema for every sentence in the language. Sentence 'recognition', if we can still call it that, must proceed by different means, it cannot involve a process of matching input data with stored representations. We could in any case not hold a list of all the sentences in a language in our head. An amusing calculation by Miller (1970) has shown that, assuming a vocabulary of 10^4 words in a language, just to utter all the acceptable twenty-word sentences of that language would take 10^{12} centuries, which is more than 1000 times the estimated age of this earth.

We have seen that, linguistically speaking, the sentences of a language can *most economically* be described in terms of a *finite* set of 'rules'. Our strategy for recognizing sentences in a language must be through some equally economical procedure. By 'economical' I mean taking up the least possible 'mental' storage space. This means that we must use 'rules' rather than lists. In other words, we do not match the incoming data against some infinitely large set of object-hypotheses, but rather match the 'rules' which could produce the data against some learned set of rules.

It is most important at this point not to jump to the conclusion, as all too many have done, that the rules the linguist uses to describe the sentences of a language have psychological reality. We must not confuse the description of the process with that of the product

CHAPTER SEVEN

Meaning and Communication

Popular Views of Meaning

We believe no aspect of language is more important than meaning. However, because meaning is so many-faceted, we still don't understand it fully. To get a hint of the complexity of the topic, consider just the range of interpretations of the forms of the word *mean* that occur in the following sentences:

[1] She didn't mean to offend you.
[2] Those clouds mean rain.
[3] Lord Buddha finally discovered what life means.
[4] The word *cactus* means *a plant with spines.*
[5] The word *cactus* means *a plant with areoles.*
[6] When I say "Close the window". I mean "Close The window".
[7] When John said no, he really meant maybe.

In its various forms, the word mean can designate notions such as *intention* [1], [6], and [7]; *causal relation* [2]; *overall intelligibility [3];* and *simple definition* [4] and [5].

One currently popular view of meaning is that it's essentially subjective. Suppose that you're arguing to no conclusion with someone on the issue of when human life begins. You or your opponent might remark *What do you mean by "life"? It's all a matter of semantics.* Such an example suggests that individuals are free to assign any meaning that they want to words. (Such a position, of course, runs contrary to what we have said about language-namely, that it's a shared system of rules).

Another, and closely related, popular view of meaning suggests that much communication is actually *mis*communication. The assumption is that speakers and hearers start off with quite divergent ideas about whatever they're discussing, and only after subsequent negotiation come to an approximate consensus on the notions associated with their words. The emphasis on miscommunication is closely allied with the idea that meaning is a mental image. This assumes that the meaning of a word is the image it prompts in the minds of its users. We will return to this idea shortly.

A third popular view about meaning is that it's a single phenomenon. Examples [1] to [7] should be sufficient to convince you that the word *meaning* includes a variety of different types of communication. This variety follows from several observations: First, not only words, but sentences, have meaning; second, meaning can be expressed directly (i.e., literally) and indirectly (i.e., nonliterally). To illustrate these two points, consider:

[8] The window is open.

We might define the words *window* and *open* by using a dictionary (the / and is/ are more problematic). We could describe the literal meaning of [8] as a relationship between a state of affairs - openness-and an object-a window, specifically that the object is it the state of openness. This simple, literal gloss expands if we consider the **context** in which [8] is uttered. Let's construct that context as [9].

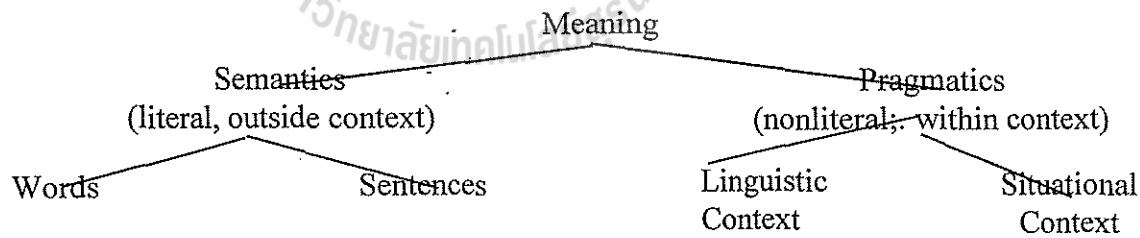
[9] *Don:* I'm cold.
Dawn: The window is open.

In this situation, the expression *The window is open* takes on further meaning beyond the literal. It expresses not just a statement about a situation but also a *suggestion* as to what Don should do to remedy the situation, or perhaps an *explanation* of why he's cold. Any attempt to understand the nature of meaning must be prepared to deal with the literal, decontextualized interpretations of words and sentences and their interpretations in context.

A Linguistic View of Meaning

Semantics deals with the literal meaning of words and sentences. **Pragmatics** deals with nonliteral meanings that arise in context. We can expand the definition of pragmatics further by contrasting two senses of the word context- (1) **linguistic context,** the actual words and sentences that precede and follow an utterance, and (2) **situational** context (AKA **extralinguistic context**), the situation

Table 1 Types of Meanings and Contexts



that accompanies the utterance. Extralinguistic context is quite variable and includes:(1) objects in the immediate environment, (2) knowledge shared by the speaker and the hearer, and (3) level of formality, among others. (Look at Table 1)

What image do you form as the supposed meaning of the following:

i. The cat sat on the mat.

j. The Middle Ages gave way to the Renaissance.

k. No man is an island.

To what extent do your images do justice to the meanings of examples a to k? On this basis, what do you see as weaknesses of the image theory? Refer to word versus sentence meaning and to literal versus nonliteral meaning.

As the exercises above suggest, the image theory of meaning leads to significant difficulties because of words such as *and, of, ordinary, belong*, and *fortitude*. The image theory emphasizes the relation between words and the external, visible world, as well as the human ability to visualize. However, language, especially in the form of sentences, is used for many more tasks than indicating visible states. And while we are certainly capable of visualizing very creatively about words and sentences, there is little reason to think that we do so in actual communication. This isn't to downplay the connection between words and the world. Linguists and philosophers use the term reference to designate this connection. **Referring expressions** include the following.

[10] The rose in the vase

[11] Students with 4.0 GPAs

These expressions designate real-world entities, although you will notice that they consist of more than one word. In fact, it's difficult to make a single word such as *rose* refer in communication, unless one is speaking the other language and pointing to a specific flower. Example [11] indicates a further problem; you might visualize one or a dozen students with 4.0 GPAs, but the potential reference is infinite. And you might ask how many such students you would have to visualize before you knew the meaning of [11].

The simple point is that, however important it is in communication, and whatever complications it involves, *reference is not meaning.* For this reason also, the image theory isn't a valid account of meaning.

In general, linguists invoke the following working assumptions about meaning:

[12a] Meaning involves a system shared by speakers of the language.
[b] For the most part, communication of meaning is successful.
[c] Meaning can best be understood by studying how it occurs successfully.
[d] Meaning has many different forms.
[e] Meaning can be studied through two broad categories, semantics and pragmatics.

[f] Semantics includes the literal meanings of words and sentences.
[g] Pragmatics includes many other types of meaning.
[h] Other types of meaning indicators (e.g., tone of voice, body language, volume, tempo, etc.) can be understood within the framework of pragmatics.

Semantics

Semantics involves (1) the literal meaning of words and (2) the literal meanings of sentences considered outside their contexts. To this we add one further point. The literal meaning includes unstated meanings that are very closely tied to stated meanings. For instance, sentence [13] is closely linked to sentence [14].

[13] I gave Mary a rose.
[14] I gave Mary a flower.

The reason for the close connection between [13] and [14] lies in the relation between the words *rose* and *flower.* In particular, the notion of being a flower is included in the definition of *rose.* We will return to this issue below. For the present, we will simply note that sentence [13] entails sentence [14]-but not vice versa. The terms *entail* and *entailment* are terms denoting specific semantic relations between sentences. We will deal with them in more detail below.

Word Meaning

We learn that our linguistic competence allows us to do many things, e.g., to distinguish between well- and ill-formed strings of words, to detect grammatical structure, and to detect ambiguity. In the domain of semantics, we can also identify abilities that indicate the presence of competence. (Recall that competence is unconscious knowledge; examples such as the ones below tell us only that such knowledge must exist, not what it actually is.) Consider examples [15] to [17]:

[15] Colorless green ideas sleep furiously.
[16a] violin-fiddle
[b] elbow-arm
[c] elbow-arm
[17] I'll meet you at the bank.

Sentence [15] is a *grammatically* well-formed sentence; compare it with *Old green jalopies deteriorate rapidly.* However, the meanings of the words don't literally "fit together," thus rendering the sentence semantically ill-formed. The pairs in [16] show **semantic relationships** between words, such as **synonymy** (i.e., sameness of meaning) [16a], **meronymy** (part-whole) [16b], and **antonymy** (oppositeness of meaning) [16c]. Finally, sentence [17] shows that a grammatical structure may be ambiguous because a word may have

more than one meaning *(bank* = "repository for money" or "side of a river"). In such a case, then, we have purely semantic ambiguity.

Examples such as the above could easily be multiplied, but these few should make clear a simple idea: *Linguistic competence includes an unconscious knowledge of the literal meanings of words.* While this conclusion might seem trivial, it conceals several less than obvious points.

First, it suggests that speakers carry around in their minds something like a dictionary of their language. However, there is no good evidence that speakers' dictionaries resemble the published dictionaries of a language. For instance, no ordinary dictionary will tell you that the words *idea* and *sleep* cannot literally be combined as subject and predicate. (Linguists often use the terms *lexicon* or *mental lexicon* to refer to this aspect of our linguistic competence and to emphasize its difference from standard dictionaries.) In fact, the nature of the mental lexicon is still unclear; we will explore below two attempts to represent its contents.

Second, you shouldn't confuse knowing the meaning of a word with being able to give a satisfactory definition of that word. Definition-stating is a learned ability and is only marginally necessary in most communication; it's also far beyond the normal capacities of people. The eminent lexicographer Sidney Landau expresses the point simply (by "general definer," he means one versed in common, rather than technical, vocabulary):

> *It is difficult to find highly skilled general definers. Such people are about as rare as good poets.... There are probably fewer than a hundred experienced general definers in the whole of the United States.* (Landau, 1984: p. 235)

Third, whatever the nature of the mental lexicon, it clearly must show that *words are related to one another.* To put it negatively, words aren't just *listed* in our competence, in alphabetical or any other simple order. Rather, they are interconnected in complex ways. Interconnections determine which words can and cannot occur together in grammatical constructions-e.g., as in [15]. Interconnections concern families (or **semantic fields**) of words related by concepts such as synonymy, meronymy, and antonomy-as in [16].

Interconnections obtain even within a single word, as in the case where a single word such as *mouth* has several *related* meanings, including a part of an animate being, of a river, or of a bottle. The technical name for this type of interrelatedness is **polysemy** (literally, "many meanings" of a single word).

Explaining Word Meaning

Since published dictionaries don't offer a very useful model of our **lexical competence**, linguists have struggled to present more plausible ones. Besides having to account for the observations noted above, they must also explain the fact that, while the human brain is finite, an individual's vocabulary may be very large. Estimates for an educated person's vocabulary run anywhere from 50,000 to 250,000 words. The largest unabridged dictionary of English, Merriam-Werriam-Webster's *Third New International Dictionary* (Merriam-Webster, 1961, with supplements in 1983 and in 1986) contains well over half a million definitions. Clearly, no two individuals have exactly the same vocabulary. If this is so, how can we hope to describe the vastness and variability of lexical competence? A general solution is to describe not the vocabulary of a single individual or the entire word-hoard of English, but instead, to envisage the *general properties* according to which the vocabulary of any individual-or of any language-can be constructed. There are two such viable models of lexical structure, the componential model and the network model.

The Componential Model

The **componential model** (C-model) is based on the premise that words are collections of many smaller units of meaning. These units are usually called **components**, although sometimes you will hear them referred to as features. Components are often regarded as *pure concepts,* not to be equated with the words of any language. A word is essentially a shorthand way of grouping a set of concepts under a single label. Some of the concepts that have been proposed by various linguists as components are listed in Table 2.

Table 2 Some Proposed Semantic Components.

ANIMATE (ALIVE)	NOT	PLACE
HUMAN	CAUSE	SIZE
MALE	BECOME	HORIZONTAL
FEMALE	KNOW	VERTICAL
YOUNG	INGEST	FLAT
OLD	INTENTION	CURVED
MARRIED		

Table 2 includes only a fraction of the possible semantic components in language. But they're adequate to illustrate the thrust of the C-model. For instance, the word *die* is a shorthand for the components BECOME, NOT, ALIVE. The word *kill* adds to these three the component of CAUSE. The word *suicide,* includes, among others, these four plus the notion of SELF. The word *cannibal* contains at least the components of INGEST and HUMAN. This example shows that certain features are irrelevant to certain words. A cannibal simply ingests humans, whether or not they're young, old, male, female, or married.

You might object that such definitions are grossly oversimplified. That objection is valid only in part. First, it does show the need to distinguish between universal and language-specific components. The features mentioned in Table 2.2 are quite likely to be universal, but many others may not be. In a language spoken by cannibals, the word *cannibal* may have many other literal components limited to that language-if, indeed, the language has a word for *cannibal* at all. On the other hand, if you object that *cannibal* suggests primitiveness, warfare, initiation, or absorption of the characteristics of the person devoured, your objection would not be well founded. This is because these aren't *essential* components of the meaning of *cannibal;* a cannibal is still a cannibal even if he's a highly educated rugby player. So such suggestions, however valid in one sense, don't concern the *literal* meaning of the word. And the literal meaning is all that semantics is concerned with.

The Network Model

While the C-model holds that **primitive concepts** lie at the root of meaning, the network model (N-model) posits that such concepts don't exist. Semantic competence, in contrast, is to be explained on the assumption that words-conceived of as whole entities and not broken down into components-have certain **primitive relations** with each other. In other words, our semantic competence doesn't consist of knowing definitions at all, but rather, of knowing how words relate to each other.

The primitive relations most commonly explored in the N-model are indicated in Table 3.

Let's now examine the notions more closely. **Synonyms** aren't characterized in the familiar way as words that have the same meaning. It's quite likely that no two words have exactly the same meaning. In her lively and lucid study *Words in the Mind,* Jean Aitchison (1987) observes that we tend to *pursue* something desirable (e.g., knowledge, a career) but *chase*

Table 3 Lexical Relations in the Network Model

	Characteristics	Examples
Synonymy	Extensive overlap in meaning	Large-big Chase-pursue
Antonymy	Opposite of meaning along related dimensions	Large-small Strong-weak
Hyponymy	Inclusion of meaning	Rose-flower
Meronymy	Part-whole relationship	Elbow-arm

Things such as runaway horses (p. 82). For some speakers, chasing evokes the notion of speed, while pursuing doesn't necessarily

do so. Synonyms thus have to be thought of as two "circles of meaning" which overlap to a greater or lesser extent. In other words, synonymy allows variation in the degree of similarity between words.

Antonymy retains its traditional characteristic of oppositeness, but with the recognition of a close relationship between antonyms. *Large* and *small* share the criterial notion of size. However, *apple* and *eraser* aren't antonyms because they share little, if any, meaning aside from being physical objects. **Antonyms** like *strong/weak* are called **scalar** (or **gradable**) because they indicate dimensions on a scale, in this case of strength. **Absolute (nongradable) antonyms** such as *alive* and *dead* indicate sharp boundaries in the semantic spectrum of animacy; if one is alive, one isn't dead and vice versa. Other types of antonyms are **reversives** such as *open* and *close* and **converses** such as *above* and *below* (if x is above y, then conversely, y is below x) (Cruse, 1986).

Hyponymy, a term not familiar in traditional lexical study, highlights the common situation in language where word meanings are organized in a hierarchical taxonomy. The meaning of the word *rose* includes the meaning of the word *flower.* Consequently, if something is a rose, it's also a flower. Moreover, the set of things that we call *roses* is included in the set of things that we call *flowers.* The word referring to the subset (e.g., *rose*) in hyponomy is called a **hyponym**; the broader term (e.g., *flower*) is called the **superordinate** or hypernym.

Meronymy, another unfamiliar term, designates the situation where one word represents something that is a part of some whole represented by another word, e.g., *head/body.* Partitive relationships needn't apply only to physical objects but may extend to temporal relationships (e.g., *day/week*), to events (*inning/baseball game*), and even to quite abstract entities (e.g., *self-control/maturity).*

Although there are many other lexical relations, these are the most frequently mentioned in the network literature. For further elaboration, see Cruse (1986).

The network model becomes more complex because it describes the relationships not between single words but between what are called the **senses** of individual words. For instance, if you look up the noun *order* in a dictionary, you will find its meanings broken down by numerals and letters to include such different notions as: (1) "a condition of arrangement," (2) "a customary procedure," (3) "something requested for purchase," (4) "a monastic group," etc. Each one of these senses would be subject to different network relations to the senses of other words. For

instance, sense 1 of *order* would be an antonym of one sense of *disorder;* sense 3 might refer to a whole of which the word *dinner* (in a restaurant) is a part.

One network relationship that deserves attention is **metaphoricity.** It appears occasionally as a connection between two different words but quite frequently between two different senses of the same word. For instance, the word *mouth* has one central sense and one metaphorical sense applying to a part of a river and another applying to the mouth of a bottle. Metaphorical senses arise historically later than their central, more literal sense. Some extensions may be haphazard; e.g., we don't think of the nose of a river or bottle. But there may be some general principles in language for metaphorical growth. For instance, English seems to have a principle by which color words may be extended to psychological states: e.g., *blue* (sad), *red* (with anger), *green* (with envy), *yellow* (cowardly), *black* (mood).

Relationships between the C-model and the N-model

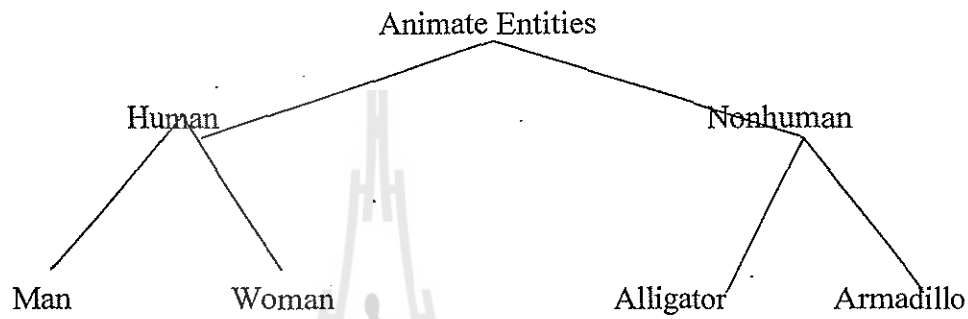
Which of the two approaches to word meaning is valid? On the one hand, you might favor the N-model on the grounds that, when asked the meaning of a word, people tend to provide synonyms rather than fully specified definitions. The ability to state adequate definitions is beyond the capabilities of most speakers; recall Landau's remark above. Psycholinguistic experiments likewise favor the N-model as the more natural. (Chapter 7, Aitchison, 1987.)

On the other hand, there is some overlap between the two approaches. Synonymy and antonymy, at least, seem to be cover terms suggesting that two (or more) words share a certain number of components. One might argue that just as speakers are unable to articulate the rules of their grammatical competence, so they're incapable of identifying components or of stating definitions.

If we notice that both approaches fall short of fully describing the meanings of words, e.g., the familiar lack of "complete synonymy" between words such as *stampede* and *scatter,* where the former typically is applied to cattle and the latter to a much wider range of entities (e.g., humans, animals, marbles). This objection can be overcome by relegating such matters to pragmatics. So on this score, the two approaches both come out as adequate in what they propose to accomplish as *semantic* theories.

It may be possible to combine the two approaches, in the form of a "componentially augmented network," which would combine the strengths of both approaches.

Semantic networks may well serve as devices to abbreviate redundant or repetitive semantic details. For instance, the fact that anything with the component HUMAN is also ANIMATE is a major redundancy that might be represented in people's minds through a taxonomy of animate beings as hyponyms of the superordinate category of animacy. Put simply:



So a lower category inherits or includes the characteristics of all the categories above it on the tree. For example, women are human and animate.

The vast number of lexical items in any language makes it unlikely that a small set of lexical relationships will suffice to differentiate all words. For example, we know that *height* and *depth* have a great deal of meaning in common, e.g., measurement, vertical-but they are distinguished, as is shown by the anomalies in [18] and [19].

*[18] The river is 50 feet deep/*high.*
*[19] The mountain is 14,000 feet *deep/high.*

Height and *depth* and their derivatives are thus not synonyms; the first indicates "measurement to the top"; the second denotes "measurement to the bottom" (Room, 1981: p. 62). However unable speakers might be to articulate this difference, the consistency of their semantic judgments in cases such as [18] and [19] indicates that they do know the meaning of these items. It's hard to see how a network model alone might account for such cases. Future work in semantics will no doubt shed light on the interrelationships of the two models.

The Semantics of Sentences

One common belief about language is that words are the sole, or at least the primary, bearers of meaning. This notion surfaces, for instance, in the almost religious reverence paid to dictionaries. A moment's reflection should easily dispel this belief.

One would hardly be able to learn a foreign language simply by memorizing its individual words. We might be more likely to begin by either memorizing expressions from a phrase book or studying some of its basic grammar. In the phrase-book approach, we would recognize that combinations of words such as *bon jour, auf Wiedersehen,* or *hasta manana* carry the meaning. Even single words actually serve as shorthand for longer expressions; words for "yes," such as *oui, ja,* and *si* have no meaning outside larger contexts. Clearly, the same holds true of your native language.

Adopting a grammar centered approach to a foreign language suggests that syntactic constructions add meaning. Consider an example from English.

[20] The aardvark chased the armadillo.
[21] The armadillo chased the aardvark.

These sentences have exactly the same words, but convey different meanings, in this case a difference between the chaser and the chasee. Obviously, word order influences the way in which sentences-their subjects and objects-are interpreted. In this way, grammatical meaning is interwoven with word meaning.

Linguists have explored several aspects of the meaning of structures larger than words. For the moment, we will examine those that concern the literal meaning of sentences.

Propositional Analysis

One approach to the study of the literal meaning of sentences is **propositional analysis.** In this type of analysis, we identify the **proposition** or propositions expressed by a sentence and represent them in a special notation. A proposition is a claim which is specific enough to be evaluated as true or false. A sentence may express one or more propositions, or indeed, may not express a complete proposition at all. Ambiguous sentences, by definition, must be represented by two or more propositions. In this section, we introduce the rudiments of the way in which propositions are represented by logicians and linguists.

The notation we introduce here depends on identifying the main communicative elements of sentences-most importantly, the

main verb along with phrases that depend on it, typically its subject and objects. The result is a representation of the sentence which expresses its basic sense. In this section, we present an informal, brief, and simplified illustration of this type of analysis. For example, sentences [22] to [25] can be represented as [26] to [29]:

[22] Oscar is laughing.
[23] Ranger Rick is feeding Smokey.
[24] Waldo is giving Esmeralda Fido.
[25] Angus is superstitious.
[26] laughing(Oscar)
[27] feeding(Ranger Rick, Smokey)
[28] giving(Waldo, Esmeralda, Fido)
[29] superstitious(Angus)

Example [26] indicates an action (laughing) by Oscar; [27] represents a relationship (feeding) between Ranger Rick and Smokey; [28] represents a relationship (giving) among Waldo, Esmeralda, and Fido; and [29] denotes that Angus is in a state (superstitious).

Notice that each expression in [26] to [29] consists of an expression to the left of the parentheses, which we will call the **predicate**, and one or more expressions within parentheses, which we will refer to as the **arguments** of the predicate. Schematically, our propositions are represented in the form: Predicate (arguments). Arguments are implied or required by predicates, which may have one, two, or three of them. Thus *laughing* requires a laugher; *feeding* requires a feeder and a thing fed; *giving* requires a giver, a thing given, and a recipient. If any of these arguments are omitted, the expression is incomplete and we wouldn't be able to determine whether the proposition it's intended to express is true or false. If you already are familiar with the distinction among intransitive, transitive, and linking verbs, this analysis should pose no problems for you. If you are familiar with calculators, you may recognize operators (predicates) such as +, -, and x, and numbers (arguments) in our notation.

In our simplified propositional analysis, we will ignore the contributions of words such as the verb *be* and of such grammatical items as tense. Of course, such details need to be accounted fro. However, they don't form a part of this simple propositional analysis because they indicate only the relative time at which an event occurred or at which a state applied, not the major semantic dependencies in which we're currently interested.

No doubt we noticed that our propositions don't observe English word order. The reason for this is that word order is a matter of the grammar of specific languages rather than of semantics, and we would like our system to treat all languages equally. The choice of representation is largely a matter of convention and convenience; for example, we could have placed the predicates after the arguments (as in "reverse Polish notation" on some calculators):

[30] (Ranger Rick, Smokey)feeding

Generally, the predicate of a proposition represents the main verb of a sentence, as in [26] to [28]-*laugh, feed, give.* However, in [29], we have treated *superstitious* as a predicate. This is because *superstitious* is like a verb in that it implies someone who is superstitious, just as *laugh* implies someone who laughs.

While a simple proposition contains only one predicate, it may have up to three arguments. The order in which we list arguments is significant. Most simply, the first argument represents the subject of the sentence, and others represent various objects.

The principles of propositional analysis are very simple, but with minor modification, they will allow you to study some fairly complicated semantic structures. Let's briefly examine some of these complexities.

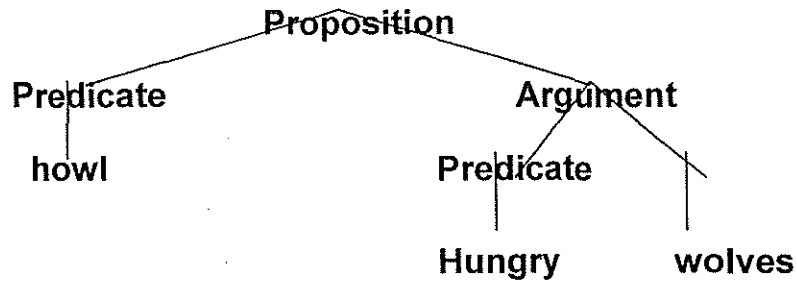
We may have assumed that any sentence with one grammatical clause expresses one proposition. On the contrary, a single clause may express two-or morel-propositions. In fact, there is no limit to the number of propositions that a single sentence can express. For example, consider sentence [31]:

[31] Hungry wolves howl.

Various grammatical structures (e.g., adjectives that premodify nouns) can conceal entire propositions. So [31] could be appropriately represented as [32] or [33]:

[32] *how l (hungry (wolves))*

[33]



In [32], the argument of *howl* is itself a proposition (examine the parentheses), composed of the predicate *hungry* and the argument wolves. Theses relationships are clearly labeled in the diagram in [33].

Ambiguous sentences may represent two or more distinct and unrelated propositions. For example, [34a] expresses the two propositions [34b] and [34c]:

[34a] John saw her duck.
[b]saw(John, her duck); i.e., John saw Mary's waterfowl.
[c]saw(John, (duck(she))); i.e., John saw Mary lower her head.

Some pairs of sentences represent the same proposition, i.e., they're synonymous. For example, the following three (and many other related sentences) all express the proposition [27]:

[35a] Ranger Rick is feeding Smokey.
[b] Smokey is being fed by Ranger Rick.
[c] It's Smokey that Ranger Rick is feeding.

Many sentences overtly contain two clauses. In such cases, the analysis will show at least two propositions and will indicate how they're connected:

[36] Smokey growls and Ranger Rick leaves.
[37] Either Smokey growls or Ranger Rick leaves.
[38] If Smokey growls, then Ranger Rick leaves.

Sentences [36] to [38] each contain two propositions and demonstrate that we need to represent not only isolated propositions but also their connections. Propositional analysis provides a very limited set of connectors, far fewer than those available in human language. The idea is that the basic semantic meanings of the natural language connectors can be analyzed as these logical connectors. The standard logical connectors are *and* (&), or (V), and *if-then* ($\rightarrow$). We can represent sentences [36] to [38] by identifying individual propositions and then connecting them by the appropriate symbol:

[39] [= 36] (growl(Smokey)) & (leave (Ranger Rick))
[40] [= 37] (growl(Smokey)) V (leave (Ranger Rick))
[41] [= 38] (growl(Smokey)) → (leave (Ranger Rick))

Note that we have added extra parentheses around each proposition; this is to keep propositions clearly distinguished.

Another important logical symbol is that of negation, represented by a tilde (~) placed before the proposition. So sentence [42a] would be represented as [42b]:

[42a] Ranger Rick didn't/did not leave.
[b] ~ (leave (Ranger Rick))

We must be careful to indicate which proposition the negative applies to. Examples [43a] to [43c] have different interpretations:

[43a] ~ (growl(Smokey)) & (leave(Ranger Rick))
[b] (growl(Smokey)) &~ (leave(Ranger Rick))
[c] ~ (growl(Smokey)) & ~ (leave(Ranger Rick))

Take a moment to examine these three formulas, noting the location of the negative sign and the parentheses. (The apparent complexity presents more of a visual than logical difficulty.) Now try to state different sentences for each formula.

The results that you arrive at should be close in meaning to [43d] to [43f] (as usual ignoring tense):

[43d] Smokey didn't growl and Ranger Rick left.
[e] Smokey growled and Ranger Rick didn't leave.
[f] Smokey didn't growl and Ranger Rick didn't leave.

Note that some of these paraphrases are somewhat artificial. In [43d], for instance, we would normally use the word *but* rather than *and.* Sentence [43e] might be more naturally expressed as [44]:

[44]Even though Smokey growled, Ranger Rick didn't leave.

Sentence [43f] sounds better if so replaces *and.* Propositional analysis currently provides no means of representing the individual meanings of expressions such as *but, even though,* and *so;* instead, it lumps them together under the cover-symbol & because, as we mentioned earlier, the meaning represented by & is the basic semantic meaning of these expressions.

The final elements of propositional analysis that we deal with here are called **quantifiers.** These symbols represent two notions: The first is the notion of *all,* indicated by the **universal quantifier** ($\forall$). The second represents the notion of *existence,* indicated by the **existential quantifier** ($\exists$). Both quantifiers typically apply to arguments of propositions. They're written in a special way and are prefixed to the proposition. Let's consider some examples:

[45a] All cats like mice.
[b] Every cat likes mice.
[c] For every cat, it likes mice.
[d] If something is a cat, it likes mice.

Different as they seem, the sentences in [45] have exactly the same semantic meaning; they all express the same proposition. That is, all of them are true under exactly the same conditions. Logicians argue that [45b] is closest to the propositional representation for all of these sentences. This may surprise you since [45d] actually has two propositions.

But as we have just seen, a single grammatical clause may express more than one proposition. Sentence [45d] also contains one of the connectives-the *if-then* conditional. The English word *something* corresponds to what logicians call a **variable,** a linguistic wild-card. Variables are represented by the last letters of the alphabet: x, y, z,

[46] $\forall x((\text{cat}(x)) \rightarrow (\text{like}(x, \text{mice})))$

Reading this formula in its most long-winded version, you get something like: *For all things, if a thing is a cat, the that thing likes mice.* While this version will not win a Pulitzer prize for style, it does have the virtue of being quite exact about the meaning of the sentences in [45].

The existential quantifier works in a similar way. The sentences in [47] all have the same literal meaning; they express the same proposition.

[47a] A Smurf exists.
[b] There exists a Smurf.
[c] There is (at least one) Smurf.
[d] There exists (at least one) Smurf.

As you might suspect, the longest-winded variant is the closest to the propositional form, which is stated below:

[48] ∃x(Sumrf(x))

Reading even more painstakingly, we can render this formula as: *There exists at least one entity that is a Smurf.* Notice that, in this analysis, the grammatical noun *Smurf* is interpreted as a predicate. Propositional analysis once again departs from the grammar of English. Its characteristics were developed to allow logicians to express in a single consistent form the propositional meaning which might be expressed by various natural language sentences and to distinguish the several propositions that are expressed by a single ambiguous natural language sentence.

Existential quantifiers may be concealed in sentences, as in [49], which has the propositional form [50]:

[49] Some exams are easy.
[50] ∃x((exam(x)) & (easy (x)))

In other words, there exists at least one thing that is an exam and is easy.

Negation, universal quantifiers, and existential quantifiers may also be combined:

[51a] No exam is easy.
[b] -∃x((exam (x)) & (easy (x)))
[52a] Nobody likes Victor.
[b] ∀x –(like (x, Victor))
[53a] Not everybody likes Victor.
[b] -∀x(like (x, Victor))

Entailment

Entailment is a very important semantic relationship between propositions although we will treat it here as a relation between sentences). For example, [54a] entails [54b] to [54d]:

[54a] Trigger is a stallion.
[b] Trigger is a horse.
[c] Trigger is an animal.
[d] Something is a horse.

If [54a] is true, then [54b], [54c], and [54d] must also be true. In general, one sentence **entails** another if (and only if) when one is true, the other must also be true. Notice that if [54b],[54c],[54d] were false, [54a] could not be true; more generally, if the entailed sentence is false, the entailing sentence cannot be true.

It's important to remember that entailments are relations between sentences and not between words. We dealt earlier with the lexical relation of hyponymy that exists among *animal, horse,* and *stallion.* Thus *stallion* doesn't entail *horse* or *animal;* they're its superordinate terms. However, the sentence [54a] entails the sentence [54b] to [54d].

We can also view entailments as the conditions that must be met for a sentence to be true, i.e., as its **truth conditions.** Some linguists hold that the entailments or truth conditions of a sentence define its literal meaning. They hold that to understand a sentence is to know what conditions must be met for the sentence to be true. It follows from this point of view that if two sentences have the same entailments, they have the same meaning; or vice versa, for two sentences to have the same meaning they must have the same truth conditions. Logically oriented linguists aim (1) to represent the meaning of sentences in a notation that allows its entailments or truth conditions to be derived, (2) to provide one such representation for every meaning of an ambiguous sentence, and (3) to provide equivalent representations for synonymous sentences, sentences.

CHAPTER EIGHT

Pragmatics for Language Teachers

The term *pragmatics* is related to the words *practice* and *practical.* It refers to the study of language structure. The most straightforward way to think about pragmatics is as the study of the meanings of utterances in context. This contrasts with the study of the literal or decontextualized meanings of sentences, which is the domain of semantics.

To get a sense of the differences between literal and contextualized meanings, consider the following sentence:

[1] He intends to question him about the murder.

Literally, this means that some male intends to question some other male about some murder. Without context, however, we have no way of knowing just who *he* and *him* refer to, nor of knowing which murder is involved. If it occurred immediately after:
[2] Chief Inspector Somjit has arrested Somchai.
then we would quite naturally interpret *he* as referring to Somjit and *him* to Somchai.

Of course, the pronouns in a sentence such as [1] could refer to individuals in the physical, nonlinguistic context. We will discuss such later, when we deal with deixis.

Reference

One of the most important jobs that expressions do in context is 'refer', i.e., linguistic expressions pick out things (people, places, objects, activities, qualities, relations, etc., etc.) in the real world or in a fictional one. Such expressions are called **referring expressions.**

Some referring expressions pick out heir referents quite straightforwardly. Generally, **proper names** are assumed to pick out unique referents.

Other referring expressions aren't so fortunate. If we, for example, have two colleagues named *Prasit.* To avoid confusion, we sometimes must add these people's last names. There are, nonetheless, only two Prasits in our department, so we can avoid confusion easily. However, the expression *The Prime Minister of Thailand* could refer to any of twenty-seven or so individuals. Clearly, when we speak or write we try to make sure that our hearers and readers know which Prasit, or prime minister, we have in mind by ensuring that the context limits the possible referents of these expressions to just one.

Deixis and Deictics

Deictic expressions are an important class of referring expression whose referents may "shift" from one use to another. The term itself derives from the Greek word *deiktein* meaning "to point." The class includes the personal pronouns, adverbs such as *today, yesterday, now, then, here, there,* and verb tenses. In [3], *yesterday* refers to March 1, 1992 when uttered on March 2, 1992, but refers to March 1, 1993 when uttered on March 2, 1993.

[3] I finished that chapter yesterday.

For a hearer or reader to know what day *yesterday* refers to, she must know when the expression was uttered. If we found [3] on a piece of paper without a date, we wouldn't know what day or date *yesterday* referred to.

Because the referent of a deictic expression may change from one use of the expression to another, deictics have also been called "shifters." Their shiftiness is assumed to distinguish them from proper names, whose referents are assumed to remain constant from one occurrence to another. From the point of view of a theory that identifies the meaning of a sentence with the truth or falsity of the proposition it represents, deictics (and the relative indeterminacy of reference generally) are a considerable problem. To determine the truth or falsity of a proposition, we must know the persons or things referred to by its referring expressions. These identities depend on the context in which the sentence is uttered.

Analysts distinguish the deictic center and three types of deixis: **personal, spatial,** and **temporal.** The **deictic center** is the point of reference from which the entities, places, and times denoted in an utterance can be identified. The three types of deixis constitute aspects of this point of reference. The speaker (I) is the personal deictic center in an utterance; the place where the utterance is made (*here*) is its spatial deictic center; and the time at which it is made (*now*) is its temporal deictic center (Levinson, 1983).

Consider, for example, the following expression uttered in the context in which there are two people and two pieces of furniture:

[4] *Jack:* I asked you to move this over here.
Jill: Oh, I thought you wanted me to put this here.

Here we I's, each referring to a different individual, in each case to the speaker of the expression in which it occurs. We also have three past tense verbs (*asked, thought, wanted*) indicating that the events they refer to took place before the time at which the utterances occurred. And we have a demonstrative expression, *this,*

which occurs twice, referring to a different entity in each case. The first refers to some entity close to John; the second to an entity close to Jan. Finally, there are the two occurrences of the spatial expression *here. Here* indicates a location close to the speaker. On its first occurrence, it refers to a location close to John; on its second, to one close to Jan.

In contrast, you represents the addressee, *there* represents a place that doesn't include *here,* and *then* represents a time that doesn't include *now.* So deictic expressions connect language with the context in which they're used, and they're interpreted by reference to aspects of the deictic center in a speech event, i.e., its speaker, time, and place of the utterance.

Verbs too may have a deictic component in their meanings, particularly verbs such as *come* and *go* or *bring* and *take.* Thus we say *Come on over here to me,* but not? *Go on over here to me,* or *Bring that over here to me,* but not *Take that over here to me.* The second member of each pair is odd because the deictic center is where the speaker is, but go and *take* denote motion away from the deictic center, and so the sentences are contradictory *Come* and *bring* denote motion toward the deictic center.

However, we can say *I'll come over there to you* without contradiction. This is because we have some limited options that allow us to shift the deictic center away from the speaker, in this case to the addressee.

Presupposition

Another important pragmatic category is that of **presupposition.** Consider, for example, the difference between [5a] and [5b];

[5a] Opas enjoyed his trip west.
[b] It was his trip west that Opas enjoyed.

While [5a] could be appropriately uttered in a broad range of contexts, [5b] (called a **cleft sentence**) is appropriate only in contexts in which the speaker (and perhaps also the hearer) assumes (presupposes) that Opas enjoyed something. The negative cleft sentence, [5c], also presupposes that Opas enjoyed something. The negative cleft sentence, [5c], also presupposes that Opas enjoyed something.

[5c] It wasn't his trip west that Opas enjoyed.

Sentence [5b] asserts that his trip west was what Opas enjoyed; [5c] asserts that whatever Opas enjoyed, it wasn't his trip west. But both [5b] and [5c] assume that Opas enjoyed something.

In general, a sentence (e.g., *Opas enjoyed something)* is **presupposed** if it follows from both the positive and the negative versions of another sentence (e.g., [5b] and [5c]).

[6] What Opas enjoyed was (not) his trip west.

The notion of presupposition is also used to distinguish among cases such as

[6 a] Ben believes that the circus has left.

[b] Ben regrets that the circus has left.

[c] Ben doesn't regret that the circus has left.

Sentence [6a] may be true whether or not the circus has left; sentence [6b] and [6c] can be true only if the circus has left. Predicates (including both verbs and adjectives) such as *regret,* whose complements are presupposed, are called **factive predicates.** Other factive predicates are: *remember, realize, be amazed.*

Sentence subjects tend to be presupposed. If the subject is a noun phrase, then the existence of its referent tends to be presupposed. [6a] and [6b]; if is a clause, then the clause is generally assumed to be true, [6a] and [6b].

Speech Acts

Consider the utterance *Out* in the following scenarios:

[7a] A poker game and the dealer asks Are you in or out? You answer, Out.

[b] You are playing softball against a pitcher who is having a super day.

He pitches another three strikes and once again the umpire yells, Out.

[c] You tried for 15 minutes to ignore your cat but finally he's got you so steamed that you get up, walk swiftly to the door, open it, and pointing toward the snow, say sternly, Out.

The point here is obviously the fact that the Some utterance, *Out,* is used to communicate three different meanings. In the first, the expression communicates the assertion, I am out. In the second, it's the ump's declaration that *You are hereby declared out.* And in the third, it expresses the order, *I hereby order you to get out.* Clearly, when we speak we not only refer to entities and predicate something of them, we make assertions, declare decisions, give orders, ask question, give advice, make promises, or make requests, to name but a few. These acts are called **speech acts** and have been extensively studied by linguists and philosophers.

Speech acts can be either explicit or implicit. An explicit promise is one in which the speaker actually says *I promise.....,*

e.g., *I promise that I with return the money tomorrow.* That is, the utterance contains an expression, usually a verb, which makes the intended act explicit by naming it.

But we don't have to say *I promise.....*in order to make a genuine promise. We can merely say *I will return the money tomorrow.* When the speech act isn't named by a specific verb in the sentence, we are performing the speech act implicitly.

What matters in performing a speech act isn't whether it's explicitly named but whether the act meets certain contextual or background conditions, called **felicity** or **appropriateness conditions.** For example, imagine a situation in which you promise your instructor to finish an assignment by the beginning of the next class period. For this to count as a genuine promise, you must say something to the effect that you will finish the assignment by the next class period; the instructor must want you to complete the assignment by that time; you must be able to carry out this task; you must sincerely intend to finish the assignment by that time; and you must intend your instructor to interpret your remarks as your commitment to finish the assignment by the next class time.

No doubt these conditions all seem perfectly ordinary. However, articulating them makes explicit what we usually take for granted and which we pay attention to only when things go wrong. They're also very useful in helping us to characterize the differences between speech acts. Promises are distinct from threats, for example, in that a promised act is one desired by the addressee, whereas a threatened act is one which the addressee would prefer not to happen. That is, they fulfill distinct felicity conditions.

Analysts typically distinguish among four types of felicity conditions:

1. The **propositional content condition** expresses the content of the act. Thus *I will return the book tomorrow* denotes the promised act, i.e., returning the book tomorrow. Sometimes conventions require that a precisely specified expression be used. For example, in some marriage ceremonies, the bride and groom must respond *I will* to the question *Will you Joan take John to be your lawfully wedded husband?* No other form, even if it means *I will,* is acceptable.

2. The **preparatory condition(s)** express the contextual background required for a particular act. For example, *I will* constitutes a marriage vow only in the context of a real wedding; a promise requires that the promiser be able to

perform what s/he promises; a speaker making an assertion must have evidence to support the assertion.

3. The **sincerity condition** requires that the speaker be sincere. For example, a promiser must willingly intend to keep the promise; a speaker who makes an assertion must believe what s/he asserts.

4. The **essential condition** is that the speaker intends the utterance to have a certain force. For example, someone uttering *I promise to return to morrow* must intend this utterance to be a commitment to return tomorrow; an assertor must intend the utterance to represent a true representation of a state of affairs. (Searle, 1970)

In sum, for an utterance such as [8]:

[8] (I promise that) I will return the book tomorrow.

To be a "felicitous" promise, (1) it must denote the promised act, (2) the addressee must want the book to be returned tomorrow, (3) the speaker must intend to return the book tomorrow, and (4) the speaker must intend the addressee to take the utterance to be a promise to return the book tomorrow.

Various classifications of speech acts have been proposed, but the one most widely used classifies speech acts as:

1. **Representatives**, which denote states of affairs, or at least speakers' purported beliefs about states of affairs including assertions, descriptions, reports, statements;
2. **Directives**, which attempt to get the addressee to do something, including questions, requests, orders;
3. **Commissives**, which commit a speaker to a course of action, including promises, threats, vows;
4. **Declarations**, which bring about states of affairs, including namings, firings, hirings, pardons, resignations;
5. **Expressives**, which denote a speaker's psychological state or attitude, including apologies, compliments, greetings, thankings; and
6. **Verdictives**, which denote an assessment or judgment, including assessments, appraisals, judgments, verdicts.

Speech act analysts distinguish between the **locution** (or **locutionary act** or **force**), i.e., the form of the utterance, and the **illocution** (or **illocutionary act** or **force**), i.e., the communicative goal that the speaker intends to accomplish with the utterance. Thus an explicit and an implicit speech act have the Some illocutionary force

but have distinct locutions. A particular locution has a particular illocutionary force (counts as a specific speech act) if it meets the appropriateness conditions for that act.

Speech acts may be performed either **directly** or **indirectly.** Saying *(I promise that) I will return the book tomorrow,* directly promises that I will return the book tomorrow; a promise is used to perform a promise. However, clever critters that we are, we can perform one speech act with the intention of performing another. For example, we might say *That was a delicious meal* to our friends after they have had us over for dinner. Superficially, this is a representative, simply asserting that the meal was delicious. It can also be taken as a verdictive, giving a judgment on the meal. But most likely it will be taken as an expressive, a compliment on the quality of the meal.

We often use indirect speech acts when we wish to be polite. For example, we are more likely to say (1) *Can you give me a ride to the airport this weekend* than (2) *Give me a ride to the airport this weekend* or (3) *I want you to give me a ride to the airport this weekend.* We prefer (1) because it allows the addressee an out *(I'm sorry. I have an exam on Monday and haven't cracked the book yet.)* On the face of things, (1) appears to be a neutral question, a directive, merely a request for information. But it can, and very likely would, be interpreted as a polite directive, an indirect request for a ride.

Speakers' Intended Meanings

When in the course of ordinary conversation we speak about communication, we are apt to characterize the process as one in which our utterances "convey" our meanings. Our metaphor is one of a conduit, or perhaps a mail service. We package our thoughts in linguistic wrappings and our hearers at the other end of the conduit, unwrap them and extract the message. A slightly more sophisticated version of this Some understanding of communication uses a cryptography metaphor in which a message sender encodes the message at one end transmits it over some channel to a receiver, who then decodes it. Neither of these metaphors fully characterizes the activities of communicators.

To see why we do not, indeed cannot, merely package and unpackage messages, imagine a situation in which two students, David and Tammy, wonder whether they're going to have to suffer through a pop quiz in grammar class today.

[66] Suda : Do you think he'll give us a pop quiz today?
Dhida : Well, we haven't reached the end of the chapter yet.

Suda's question seems clear enough. She asks Dhida whether she thinks the teacher will give them a quiz today. However, Dhida's reply doesn't mention pop quizzes at all, but Suda would probably interpret it as indicating that Dhida doesn't believe that there will be a quiz today. How is it that Dhida's reply, which literally means "we haven't reached the end of the chapter yet," and thus seems hardly relevant, can be interpreted as an appropriate answer to Suda's question?

Suppose that Dhida believes, and believes that Suda believes (or at least can figure out from her remark), that the teacher only springs pop quizzes when the class has finished discussing a chapter. Then, with this belief as background, she can assume that Suda will figure out that she thinks that there will be no pop quiz today. Suda, for her part, will interpret her remark as intended as a reply to his question, and not just a random remark. Because Suda believes that Dhida intended her remark to be interpreted as a reply to his question, she looks for clues to its interpretation. If she assumes that people (in general) have some evidence for their beliefs, then she can interpret Dhida's remark as evidence for some belief that she holds. She can then figure out that she believes that there will be no pop quiz today.

The two crucial notions in this discussion are intention and figuring out. Hearers figure out (infer) the meanings which speakers intend them to figure out. Meanings therefore are not "conveyed" entirely by utterances. They cannot be obtained by a simple decoding process. Utterances (and their contexts) are merely clues to the meanings hidden away in the minds of speakers. The principles that guide us as we figure out speakers' intended meanings are the topic of the following section.

Implicatures

Imagine the following fragment of conversation:

[8] Som: What time is it?
Pom: The mailman has just arrived.

Rather than simple assuming that Pom was being uncooperative and irrelevant in her reply, Som uses the information she supplied to construct an answer to his question. Suppose that both Som and Pom know that the mailman typically arrives at about. 1:30 P.M. and that each knows that the other knows this. On the basis of this background knowledge, Som can figure out that the time must be shortly after 1:30 P.M. He may also conclude that Pom must not know the exact time, that perhaps her watch is broken. However, nothing in her reply expresses time or indicates that she is

or isn't in a position to tell him the time. So, how does Som garner all this information from Pom's apparently irrelevant remark? What principles or assumptions about conversation guided her in constructing her reply and guided Som in drawing his conclusions?

Paul Grice, the philosopher, attempted to answer these questions in some very influential work presented in the late 1960s. He proposed that conversation is one of many cooperative enterprises that people engage in and that it's governed by the very general assumption called the **Cooperative Principle (CP).**

[9] Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk-exchange in which you

Grice made this rather general principle more concrete and specific by adding four maxims:

[10] **Maxim** of Quantify
Make your contribution as informative as is required.
Do not make your contribution more informative than is required.

[11] **Maxim** of Quality:
Try to make your contribution one that is true, specifically:
a. Do not say what you believe to be false.
b. Do not say that for which you lack adequate evidence.

[12] **Maxim** of Relation:
Be relevant.

[13] **Maxim** of Manner:
a. Avoid obscurity of expression.
b. Avoid ambiguity.
c. Be brief.
d. Be orderly.

These aren't moral strictures, or still less, descriptions of typical communication. We all know people who rattle on interminably, who get off the point, who lie, or who relate a sequence of events in any order but the one in which they occurred. Rather, the maxims are designed to express the assumptions which we generally make as we converse (and indeed, as we interpret any piece of language).

To see how these maxims work, let's revisit our conversation between Som and Pom. Som asks a question of Pom. Pom makes a remark immediately after. Som assumes that She's being

cooperative and in particular that she's abiding by the maxims. Only if he makes these initial assumptions, can Som make sense of Pom's remark and interpret it as a reply to his question. He assumes thet her remark is relevant to his question and isn't just the expression of a random thought. On the assumption that Pom has been relevant, Som can examine her remark for clues as to how it constitutes an answer to the question. Given that her remark doesn't directly say anything about time, Som can assume that she isn't in a position to say exactly what time it is, because if she were, she should have done so in order to abide by the maxims of quality and quantity. So Som concludes that Pom is giving him the most truthful information for which she has evidence. She's also giving enough (and no more) information to enable Som to work out the approximate time himself. The answer is also clear, unambiguous, brief, and orderly. So, by assuming that Pom is being cooperative and following the maims, Som can derive a considerable amount of information from her reply, which in turn is crafted in such a way as to allow him to do just this. That is, Pom's reply tells of the mailman's arrival. Som can now activate his knowledge about the mailman's usual time of arrival and from that infer that the time must be about 1:30. Inferences like this, which are based on the meaning of an utterance, the Cooperative Principle and the maxims, and in some cases the context, are called **implicatures.**

Discourse and Text Analysis(See more details in Chapter 9)

We have seen that well-formed sentences meet requirements on a variety of levels-syntactic, semantic, and pragmatic. Texts and discourses are also thought of as having to meet analogous requirements. In folktales, for example, the events must occur in a particular order or the tale is defective; sonnets must fulfill particular rhyming and rhythm requirements; conversations are expected to be topically sensible; academic essays, papers, theses, and dissertations are expected to conform to the organizational requirements accepted or conventional in their fields. Teaching students how to write largely amounts to teaching the conventions of particular genres. Studies of text and discourse have focused a lot of attention on two aspects **cohesion** and **coherence.**

Cohesion in texts is signaled by the expressions that writing teachers have traditionally called "transition devices." These are words or phrases that make explicit the temporal, spatial, and logical connections among sentences in a text. They also include such devices as coreferential expressions, deictics, pronominalization(and proverbalization), and ellipsis.

Especially noteworthy in this regard are expressions called **textual** (or **discourse**) **deictics.** For example, writers can refer to places in, or parts of a text relative to the point being currently read

(the textual deictic center), by using expressions such as *above* or *below:*

[14] We dealt with issues of deixis above, and deal below with issues of coherence.

Clearly, above and below refer to places in the text before and after the points at which these expressions occur in the text.

Demonstrative pronouns are often to be interpreted as textual deictics:

[15] Jack: Have you heard this joke?
(Tells joke.)
Mack: That one was born before you were.

In Jack's question, this refers forward deictically to the joke; Mack's that refers back to it.

There is a crucial distinction to be drawn between discourse deictics and anaphora (See more details in Chapter 10), another important device for creating cohesion in texts. Anaphoric expressions are coreferential with (i.e., refer to the Some entities as) other expressions in a text. For example, the noun phrase *the armadillo* and the pronoun *it* are coreferential in:

[16] The armadillo trudged slowly along the center stripe It was entirely oblivious to the traffic that whizzed by on either side.

It is said to be an anaphor for the full noun phrase, which in turn is said to be its antecedent. In fact, it's only on the assumption that these two expressions are antecedent and anaphor (i.e., are coreferential) that the passage makes sense. Clearly, the antecedent/anaphor relation is a potent cohesive tie in a text.

The antecedent/anaphor relation is only one among a number of coreferential relationships, all of which involve lexical substitutions: For example, epithets may substitute for other noun phrases such as proper names:

[17] Oscar got himself elected. The rat persuaded even the dead to vote for him.

Here the *rat* and *Oscar* refer to the Some individual. Frequently, hypernyms (superordinate terms) substitute for hyponyms (subordinate terms). In the following, the superordinate term *animal* substitutes for the subordinate term cat:

[18] My cat is a bit of a klutz. The animal can't walk along without knocking everything off.

The assumption of coreferentiality between an antecedent and either an anaphor, an epithet, or a semantically related term is an important device for creating cohesion in texts.

A related study is that of **discourse coherence.** This examines the intuited, but not necessarily overtly indicated, meaning connections between parts of texts. In fact, many who study discourse coherence would argue that it's only by assuming coherence that the cohesive devices can be interpreted as such. We have tried to indicate this in our discussion of cohesion by saying such things as, "It's the assumption of coreferentiality that creates cohesion." Scholars are fond of creating texts which have plenty of cohesive ties but are semantically incoherent. The following passage illustrates this.

[19] John was late. The station clock had struck nine. It was time for Susan to start work. She took the first essay from the pile. It was by Mary Jones. Mary had not been well for weeks. The doctor had told her to take a holiday. The problem was that she couldn't afford one. Living in London is now very expensive. All central government subsidies to the Greater London Council have been abolished. Paradoxically, this might be seen to follow from the premises of Libertarian Anarchism. The minor premise might be difficult for the reader to discern. Our theorem proving program does this using a "crossed-syllogism" technique.
(Blakemore, 1987: p. 108)

In this passage, each sentence is connected to the one adjacent to it by at least one cohesive device. Nonetheless, no one would regard the passage as a coherent text. The reason for this is that we cannot construct a meaning that encompasses the entire passage. We would be hard pressed to say what the topic of the piece might be, and so we couldn't give it a title.

Without a topic, a piece of text has no coherence, and providing a title, and thus a topic, for a text can make one that initially seemed incoherent and hard to interpret coherent and straightforward, as the following passage illustrates. Read it before you check its title/topic below, then compare how opaque it is on the first reading with how sensible it is on the second:

[20] The procedure is actually quite simple. First you arrange things into different groups. Of course, one pile may be sufficient depending on how much there is to do. If you have

to go somewhere else due to lack of facilities that is the next step, otherwise you are pretty well set. It is important not to overdo things. That is, it is better to do too few things at once than too many. In the short run this may not seem important but complications can easily arise. A mistake can be expensive as well. At first the whole procedure will seem complicated. Soon, however it will become just another facet of life. It is difficult to foresee any end to the necessity for this task in the immediate future, but then one never can tell. After the procedure is completed one arranges the materials into different groups again. Then they can be put into their appropriate places. Eventually they will be used once more and the whole cycle will have to be repeated. However, that is part of life. (Bransford and Johnson, 1973.p. 400, quoted in Brown and Yule. 1983. P. 72)

Experimental subjects who were told that the topic of the passage was "washing clothes" understood and could recall aspects of the passage better than subjects who weren't told this.

In another experiment, Anderson et al. (1977) showed that a text will be interpreted according to the assumptions or interests brought to the task of interpreting it by its readers. Even individual words in the following passage can be interpreted differently by readers with different interests:

[21] Every Saturday night, four good friends get together. When Jerry, Mike and Pat arrived, Karen was sitting in her living room writing some notes. She quickly gathered the cards and stood up to greet her friends at the door. They followed her into the living room but as usual they couldn't agree on exactly what to play. Karen's recorder filled the room with soft and pleasant music. Early in the evening, Mike noticed Pat's hand and the many diamonds. (Quoted in Brown and Yule, 1983. P.248)

Anderson and his colleagues found that female music education students interpreted the passage as a description of a musical evening. In contrast, a group of male weight-lifting students thought that the passage described people playing cards. Clearly, readers who interpret the passage as a description of a musical evening are likely to interpret recorder as a musical instrument and *play* as "play music," whereas those who interpret the passage as describing a card-playing evening may think *recorder* refers to a tape recorder and *play* to card playing.

Clearly, making sense of a text requires making some assumptions about what its topic is and what the speaker's

intentions in uttering it are. These assumptions guide readers in deciding what individual words in the text refer to. They also guide us in deciding whether two expressions are, in fact, coreferential. While the cohesive devices may be important in helping to create coherence in texts, they are dependent, as coherence in general is, on readers assumptions about such semantic characteristics of the text as its topic. It's these assumptions which create coherence, and they may do so without the aid of "transition devices," which are neither necessary nor sufficient to create textual coherence.

CHAPTER NINE

Written Discourse Analysis

The purpose of this Chapter is to provide an introduction to the topic of written discourse analysis and to get you thinking about some of the key issues involved.

- what text is and why it is worth our while to study it
- what is meant by the authenticity of a text and why it is important
- how and why texts can be interfered with
- what a corpus is and how big it needs to be
- what context is and how it is important in relation to text
- what a schema is
- how inference and background knowledge contribute to coherence

Since these issues are central to the whole module, there is no suggestion that by the end of this Unit you will have discovered everything you need to know about these interesting questions. They will continue to be addressed throughout the module.

Why do we have to study written discourse analysis? It would be a task of mammoth proportions to list all the ways in which language plays a part in the day-to-day life of a society or indeed of any individual in that society. Only a hermit bereft of all printed matter and entirely lacking artificial means of communication and recording - telephone, radio, TV, computer, tape recorder, and so on - could be expected to make a nil return. For those of us who live in more interactive communities the range of linguistic activity is enormous. In a British television advertisement for a miracle language-teaching course, a popular entertainer - a magician or illusionist, appropriately enough - said something like: 'Language is not very complicated really. It's just a lot of words. So to learn a language all you need to do is to learn a lot of new words every day. Of course, in a sense it is true that language is 'just a lot of words', and you can get a long way in a foreign country with a set of vocabulary items plus an array of gestures and a lot of good will on both sides. But the sort of communication that this restricts you to falls far short of the optimal. When a basic knowledge of the grammar of the target language is added to the vocabulary store, the situation is very different. Instead of communication at a level which is little better than that of gesture, you can attempt to express quite complex ideas with some degree of success.

In fact, the separation of grammar from vocabulary is a great over-simplification and possibly dangerously misleading. Grammatical regularities do not exist independently of words, but rather within words and in the relationship between words. Grammar regulates how we construct words and how we link them together in hierarchical

combinations to express quite complex thoughts which are way beyond the mere naming of objects. Knowing how to use a word in a given language means knowing, amongst many other things, its grammar, which forms it can take, which structures it can occur in, and which other words and structures it can co-occur with.

Students have all kinds of advantages when it comes to functioning in English. But they also have to do more than simply learn to produce and understand grammatical sentences. They need to be able to produce and understand text. And they need to be able to produce and understand text that is appropriate to the particular situation in which they find themselves. Not all the knowledge (beyond the lexico-grammar) that is required can be carried over from one language to another. French texts differ from English ones in than just grammar and vocabulary, and Japanese texts differ even more. Therefore, as a teacher, you need to know a great deal about the characteristics of English texts, and more specifically about the kinds of texts that figure - or will figure in the future - in your students' lives.

Linguists need to study text because a text is a manifestation of language. The totality of texts constitutes language in the same way that the totality of human beings constitutes humanity. We might be skeptical of the claims of a model of plant biology that had no place for considering those plants which actually occur and we should be similarly dubious about any linguistic theory that has no place for the consideration of real instances of language usage.

De Beaugrande (1997) starts with a very ambitious statement about text and discourse analysis. Just before the statement already quoted at the head of this Unit, he writes:

The top goal of the science of text and discourse proposed here is to support the freedom of access to knowledge and society through discourse. This goal has become enormously urgent in our 'modernizing' world, where social progress demands that the increasingly diverse social classes and cultures develop more co-operative practices for sharing knowledge and negotiating social roles; and discourse must surely be our central modality for doing so (de Beaugrande 1997: 1)

As teachers, we have a duty to initiate our students in the discourse practices of our disciplines. For language teachers, this is a considerable and complex task and, as de Beaugrande points out, before we can help others, we must ourselves understand what is going on.

What is text? Text is something that happens, in the form of talking or writing, listening or reading. When we analyze it, we analyze the product of this process, and the term 'text' is usually taken as referring to the product... (Halliday 1994: 311)

We may speak of a complete text to refer to the whole of the language event (for example, a whole research paper, an entire letter, an entire book, a complete lecture); or we may speak of a text fragment (a paragraph from a book, five minutes of a one hour lecture, and so on). But the distinction between a text and a text-fragment is not very precise, and often the simple term text is applied to any piece of actual language regardless of its completeness.

Further, the term text may be applied to the ongoing discourse process (the sales transaction as it occurs, the lecture as it is being given, etc.) or to a written or electronic record of the event (a transcript or a tape-recording of the lecture).

Discourse. There is considerable variation in how terms such as text and discourse are used in linguistics. Sometimes the terminological variation signals important conceptual distinctions, but often it does not and terminological debates are usually of little interest. Stubbs 1996: 4

Some writers make a distinction between text and discourse and some don't; unfortunately those who do aren't always in agreement about what the distinction actually is. However, it has to be accepted that terminology in general is not yet very fixed in our field, and so some degree of uncertainty is just something we have to learn to live with.

Authentic text. By text, we mean an instance of language in use, either spoken or written: a piece of language behavior which has occurred naturally, without the intervention of the linguist. This excludes examples of language that have been invented by a linguist merely to illustrate a point in linguistic theory. Stubbs 1996: 4

In fact, teachers, materials writers and others are often tempted to use artificial data for understandable reasons. They might, for example, feel that their students lack the necessary linguistic skills to tackle the real thing and so they offer something simpler or simplified. They might believe that this serves their pedagogic purposes, but it is a risky strategy. Risky, because it is very difficult to simulate real text; one risk you run is of teaching an artificial, fake English. If you want your students one day to read or write real minutes, then expose them to real minutes. If you want them to read or write real history books then expose them to text from real history books. If you want them to listen to physics lectures, expose them to data from real physics lectures. It goes without saying that it is equally true that analysts must look at real texts and not concoct something for themselves or use the artificial concoctions of

others (unless they have very relevant reason to do so, such as investigating the degree of resemblance and deviation of concoctions from the real thing).

Some academics, notably Widdowson, have tried to justify their own dubious practice by arguing that an authentic text is no longer authentic once it has been taken out of its original environment and presented in a classroom for a different, pedagogic purpose. So, they then argue, as there is no such thing as authenticity in the classroom or in teaching materials, in the sense in which I have been using it, we might as well write our own texts for the classroom. These would then have a different kind of authenticity conferred on them by the fact of being language learning texts. Thus, they argue, any sample of language that serves a useful purpose is authentic in this sense. Widdowson implemented these views by editing a series of ESP books, the Focus series, which, critics have argued fail because of the lack of commitment to authentic text - or rather because of a commitment to an idiosyncratic notion of authenticity.

Tampering with texts. There are various ways in which educators, publishers and others may try to make written text more readily accessible for student readers. And there are other reasons for changing text, too. First of all, they may select texts that are intrinsically easy to read - or rather that are at a level of difficulty with which a given set of students can cope without undue puzzlement. If the texts are appropriate to the needs and interests of the students, this is arguably the optimal situation.

There are various methods for measuring the so-called readability of texts, which attempt to identify the relative difficulty in terms of the reading age norms of native speaker/readers, for example. Texts can be graded according to the normal reading age at which they can be comprehended, and reading schemes exploit these methods by offering progressively more difficult texts in the form of books or cards. Such readability measures are often applied to specially written or doctored texts as discussed below.

A second way is to write texts from scratch that conform to predetermined lexicogrammatical constraints. We can call these controlled texts. People who write books for children usually work on fairly loose intuitive lines to produce language that they feel children of the target group will find accessible. But the huge world-wide market for English as a second language has led many publishers to pursue a policy of setting explicit linguistic criteria for newly written books, readers as they are confusingly called. The editors of these books may specify a particular set of vocabulary, certain grammatical structures and other criteria for controlling the degree of sentence complexity. Writers must then work within these constraints.

A third option is the simplified text, the result of rewriting an existing text according to similar constraints. This is a very popular option for publishers who, for example, produce as part of a series of graded readers simplified versions of classic novels such as Tom Sawyer or Robinson Crusoe. In effect, these versions are a retelling of the same basic plot, usually much more briefly, as well as in a simpler linguistic form, than the original.

A fourth option is the abridged text, a text that has been changed only by removing parts. In other words only part of the original text remains, but what is left is still in the form in which it was originally written. Thus the language remains totally authentic, but, having lost some of its linguistic context, it will paradoxically not be exactly as it was when it was produced originally as a complete authentic text.

Obviously, texts can be abridged in varying degrees. There may be many reasons for wanting to make a text shorter: economy of production costs, physical convenience, limitations of space. Or the motivation may be to make the text more easily processed. Because of this last aim, abridgement can be seen to have something in common with vocabulary and structure control and with simplification. As is indicated above, simplified texts too are often much shorter than the original, but the term abridged is usually reserved for texts that have simply been cut.

By definition, all these forms of simplifying or modifying produce something that is different from the authentic original. For most purposes in discourse analysis and teaching, and perhaps most obviously in English for Specific Purposes, authentic texts are preferable to those that have been interfered with.

There is nothing intrinsically wrong with simplified readers or other alternative versions of stories (or ideas), but there is a pedagogic risk attached. To repeat: this is that students may be exposed to an artificial EFL variety of English and be shielded from the kind of language that they need or will need later. The advocacy of authenticity is not a religious dogma; it is based on common-sense about what students need to learn and what claims researchers are justified in making.

Sometimes authentic texts can be modified without seriously affecting their authenticity. For example in the sample of legal text given in the next Unit, I have changed the names of people and also the street and town names, to prevent identification. In doing so, I have not seriously undermined the authenticity of the text for the purposes of analysis, although, in a real legal context, changing the names in such a document might be a heinous crime. Such ethical issues are less liable to arise (though they are not absolutely ruled out) when dealing with texts which are already in the public domain: published articles, books,

advertisements, and so on); but here the question of legal copyright may be an issue.

Data and corpus. For discourse analysts, texts constitute potential data. Data are the phenomena under investigation or the phenomena that provide evidence for the claims that the analyst makes. Thus, the research process in which the analyst is engaged is the investigation of texts. Usually, this involves the putting together of a collection or corpus of texts from which the data are to be selected.

Is size important? At the present time, the use of the term corpus analysis or corpus linguistics usually implies computational analysis of some kind, but corpora were used in linguistic analysis long before electronic computers, and a corpus can be a very small sample of text, which could be easily analyzed manually.

Some corpus linguists set great store by the size of their corpus, arguing that only a collection of many millions of words can provide a valid basis for useful generalizations about language use, but the fact is that the necessary size of a corpus depends on the type of investigation being carried out; that is to say, it is a question of what you are looking for. If you are interested in 'of', which is the second most frequent word in English and makes up roughly 3% of all the words in a given text, you need a very much smaller collection of texts than if you want to investigate 'man' which despite being the 150th most frequent word occurs roughly once in every 2000 words, or 'presumption' which occurs roughly three times per million words. Of course, it might be rash to make sweeping generalizations on the basis of a small sample, but it is also true that not all the questions we ask about texts can be answered by electronic surveys of huge corpora or by the use of statistical procedures. Computational methods have allowed significant developments in the study of language, but some kinds of truth can be better observed through a local analysis and some questions require judgements that computers cannot make.

One reason for using massive corpora is the desire to make generalizations about the English language as a whole. For example, a major advocate of huge corpora and a key figure in the creation of the massive Bank of English corpus in Birmingham, Sinclair (1991) offers interesting observations about the word of in English on the basis of its frequency of occurrence in certain grammatical structure types. If Sinclair had examined only a few thousand words, we might say: 'Come on, John! How do we know that this is typical of English in general? Perhaps another few thousand words might give a different result.' Even with a million words, we might say something of the sort, and so Sinclair opts for a multi-million word corpus. Similarly, to make generalizations about 'English', we need to have a corpus that represents an enormous range of text types, varying in subject matter, purpose of production, degree of

formality, context, etc. - in fact, as many different varieties of English as we can lay our hands on. Hence, Sinclair uses a corpus that includes as wide a range of sources as possible. But other goals and other circumstances might lead to differently structured corpora.

If we are interested in the nature of some particular variety, say courtroom discourse or medical research articles, then we would be well advised to focus on a corpus of such items rather than a sweeping selection of entirely unrelated data. It may well be that the results we get from a comprehensive collection of text will be different from those obtained from a carefully selected set. We might, of course, sometimes wish to compare our variety-specific results with more general ones, and then access to a large corpus will be necessary, but the primary interest will be in the narrow corpus. For most pedagogic purposes, it is the narrow corpus that is the most enlightening; certainly for people engaged in ESP. Of course, if you have access to a macro-corpus that allows selection on the basis of text type, then you can extract the set of data relevant for your purposes and ignore the rest, but in this case your corpus is the specialized section that you have selected and not the macro-corpus itself. A useful small corpus may, for example, consist of a mere dozen or so articles, or abstracts, or subject textbooks, or business letters, or transcripts of lessons.

So, the short answer to the question: 'Is size important?' is 'Not always. It depends what you are trying to do.' However, in spite of all this, the term corpus does sound a little grand and for some people does connote considerable bulk, so you might be wise to avoid using it in public if you have analyzed only five business letters - even though they do technically constitute a corpus. I myself have used the term to refer to a dozen or so articles, but I am aware of the risk I run of being criticised by size-fixated corpus linguists. Of course, I believe that what I am doing in looking at a few articles in the way I do is as valid a way of doing discourse analysis as carrying out a computer study of a multi-million word corpus. Not better but as good.

Even when a computer is an appropriate tool for text analysis (and indisputably it very often is), it is the questions that the analyst asks and the quality of the deductions drawn from the results of the analysis, that determine the value of the investigation. In the words of the old computational proverb: 'Garbage in; garbage out.'

Context. The notion of context is central to the study of discourse. People sometimes complain that a given utterance attributed to them (by the Press, for example, or in a court of law) was misinterpreted, because it was 'taken out of context'. By this they may mean one of two things: (a) that the rest of what they said has been ignored or (b) that the circumstances in which the utterance was made and all the paraphernalia

of presuppositions, etc., have been ignored. In either case, the complainant is appealing to the indisputable view that the sense of an utterance is not inherent in the words and grammar alone, but is crucially affected by contextual factors. Context in the first sense we can call co-text; the second can be labeled context of situation. A major aspect of context of situation is sometimes labeled context of culture. Some people treat this as separate from the context of situation, but it seems to make more sense to see it as an integral part of it.

Co-text. At the micro-level, a stretch of language under consideration can be seen to fit into the context of its surrounding text. The surrounding text is the co-text. The sense of a chunk of language - a few words or a paragraph - is in part dependent on words and paragraphs around it; these constitute the co-text of the chunk in focus. The co-text of the Unit you are now reading is made up of the other Units comprising this module. Some of the meaning of this Unit is inherent in its positioning as part of the module as a whole, on the fact that is the first of a series of such units, that they resemble it in format, and so on.

Context of Situation. The context of situation is made up of all the phenomena which affect the discourse. In face-to-face interaction, the context of situation includes the immediate and wider environment in which the text actually occurs, like the classroom in the case of a teaching discourse, the shop or market in a sales transaction, the workshop in the case of a discussion about a gearbox replacement.

It may be that the physical setting of the discourse is not germane to the nature of the text itself. If you discuss gearbox replacement while on top of a mountain, the precise fact of the altitude may have little bearing on the discourse (on the other hand, it might), but the fact that there is no engine present is likely to be very significant. In addition to the physical location, there is the location in time of the event: time in history, time of the year, time of day may all play a determining role.

The interactants also play a part in the context of situation. The people who are discussing gearbox replacement, their ages, nationalities, gender and especially their social roles on this occasion (for example, mechanic and car-owner; apprentice mechanic and skilled mechanic; teacher and student; two non-expert car-owners; friends or strangers) may all be significant. In the case of written text the situation is more complex as the writer writes for an imagined reader to whom s/he attributes certain knowledge and certain ignorance, but the text is processed only by real readers who may differ considerably from the imagined and may have more or less difficulty understanding the text.

Context of Culture. Every immediate situation is located in a cultural context. The context of culture is an intricate complex of various social phenomena involving historical and geographical settings but also more general aspects like the field of the activity: education, medicine, provision of goods and services in exchange for money. Car maintenance discourse in a highly hierarchical society may be different from that which takes place in a relatively egalitarian society. Classroom discourse takes place within a wider cultural context of, say, university education or secondary school education, or slightly more specifically African university education, or Kenyan University education. The discipline in question also plays a part in the context of culture: thus a physics lecture takes place within the cultural practices and traditions of the field of physics at large as well as in a particular education system or institution.

Textuality. De Beaugrande (1997) posits a set of criteria for textuality, well known from earlier publications, including De Beaugrande and Dressler (1981), with my own paraphrasing.

a) **Cohesion:** the relation between forms and patterns
b) **Coherence:** the way meanings are understood
c) **Intentionality:** what text producers intend, mean to achieve
d) **Informativity:** the extent to which the text tells you what you don't already know
e) **Situationality:** the relation between the text-event and the situation in which it occurs
f) **Intertextuality:** the relation between this text and other texts

Optimally, we might ask two things of a contextual model of variation in discourse: (a) that given a text, we should be able to say something about the context of situation that produced it; and (b) that given a context of situation, we should be able to predict the type of text which it generates.

There is little doubt that we can meet the first criterion with a reasonable degree of satisfaction. I have rather cautiously said 'say something about', but I think that in the vast majority of cases, we can say a great deal. This is not to say that we can always, without exception, state precisely the circumstances which produced the text. No test of a theory could ask that. But with the right expertise, we should be able to deduce a great deal of information about the context of situation from the lexicogrammatical form and other relevant features (for example, in the case of written text: layout, accompanying illustrations, and so on; in the case of a sound recording: intonation, timing, presence of echo, and so on).

It is matter for debate how far we can predict from the knowledge of the situation the type of language that will ensue. However, it might be argued that, if we knew enough about how discourse works, we would be

able to predict with reasonable statistical success. The notion of context of situation is bound up with the notion of social institutions. All forms of social activity can be seen as in a sense institutional. Weddings, funerals, trials are obviously institutional activities, but for the sociologist, ethnographer or discourse analyst, so are university lectures, buying and selling, making a will, banking transactions, writing minutes, joke-telling, eating in a restaurant, writing a letter of complaint.

In every situation, there is scope for variation from the norm and for idiosyncratic behavior, and the degree of detail that can be predicted varies from situation to situation: the more obviously 'institutional' the situation, by and large, the more predictable the language. For example, for a given narrowly-specified society, we can reasonably predict the sort of text produced in a marriage ceremony. Given the context of a Catholic church in Britain, say, or a mosque, or a registry office, we might even be able to specify much of what will be uttered because weddings make considerable use of prescribed and ritualized 'written-to-be-spoken language. More generally, we will expect the discourse to have certain characteristics: predominantly spoken channel, initiation of verbal exchanges by the presiding official (priest, Imam, local government official), responses from the marrying couple, some declarations of intent/promises, and so on.

Schema Theory. One attempt to present a model of background knowledge is schema theory. The singular term is schema; the plural is schemata. Everyone's knowledge will differ, at least in the details, but with sufficient common ground communication is possible. This seems to suggest that each person has a different schema in his or her mind, and this seems very plausible. But there must be enough similarity, enough information common to everyone's schemata, to enable us to communicate. Obviously, if your schema and mine were different in every respect, effective communication on the topic would be impossible; we would simply misunderstand each other.

What we are talking about here is what Carrell (1988: 101) describes as: 'the role of pre-existing knowledge structures in providing information left implicit in text'. But it is not just a single schema that needs to be activated for any situation. The background knowledge presupposed in almost any text - written or spoken - is enormous.

Text. This text could be said to exploit a language-learning schema. (It also involves a 'research article schema', and all the things that go with that, which is text-oriented rather than content-oriented. This includes or interacts with a 'grammar schema'. Certain elements are built into the schema (or schemata) and so they don't need to be spelled out by the writer. They include:

- people usually learn foreign languages by studying
- verbs can be rightly or wrongly chosen by learners
- learners can be classified into developmental stages
- learners need to choose tenses (when they speak/write)
- some verb functions are difficult for learners
- there are different approaches to teaching the tense system
- structures can be targeted
- teachers teach learners
- teachers target structures
- teachers make choices about how to teach/what to target/etc.
- languages have grammar
- grammar has categories, which include verbs
- verbs have functions
- verbs can be classified into different types according to function
- verbs have tenses
- tenses can be viewed as a system
- etc.

Note that although learners are mentioned, teachers are not. Yet we can reasonably assume a teacher (or someone in a teacher-type role: course-writer, materials-writer, etc.). In fact, we can say that our socially-induced language-learning schema involves a teacher. Of course, people learn languages without teachers and so, whereas learner is an obligatory element, teacher is usually but not necessarily taken for granted. We could call this a default item. In computing, a default item is one that is present unless you specify that you don't want it. In a language-learning schema, we might assume the existence of a teacher unless we are told there isn't one: e.g. by the use of the term self-tuition or some other indicator of a no-teacher situation.

The word schema, like most words, is used with several different meanings. In the sense (more or less) in which I am using it here, it originates in the field of psychology in the 1930s (Bartlett 1932), although it has been traced back to the 18th Century German philosopher Kant. It came back into academic prominence with work on artificial intelligence (AI). AI is the interface between psychology and computational science. It is concerned with such issues as human interaction with the computer, making computers talk or think like humans and also with shedding light on the workings of the human mind by computer simulations and modeling. Computers are very good at some things that people find difficult, like calculating the sum of a huge list of very large numbers. But computers have enormous difficulty with things that people find easy. For example, even a very young child knows that a cup is a still a cup when it is seen from a different point of view or turned upside down; computers have difficulty with things like that. So it might be argued - and indeed it is - that computer modeling is not the best way to shed light on the workings of the human mind, but luckily we don't need to pursue that sort of question here.

The term schema theory tends to be used as a blanket term to include work that uses other terms and concepts for related ideas, such as scenario, script, frame. It is not really necessary for you to pay much attention to the fine points of difference between these terms. The theory was not initially concerned with language, but more with mental representations of the material world: how do we recognize something as a house and something else as a cup and yet another thing as a horse when instances of these things vary so much? Do we have a picture of a typical house in our minds? Do we have a list of attributes that we tick off and if they are all there say: Yes, that's a house? Psychologists tried to build up models of what we store in our minds. The suggestion is that we match what we experience with some mentally stored information and in this way make sense of our environment. The schema is the mental framework or pattern.

The term frame has been used for a kind of proposed pattern for such as house. It has obligatory and optional features: a roof might be obligatory; walls and door might also; but windows might be optional; probably a porch or a patio would need to be optional. Some items are default items; that is, we assume they are there unless told otherwise. One question that needs to be answered is: how is it that a person who has learned to recognize a house in one culture (e.g. as having a roof, doors, windows, several rooms devoted to different activities; and so on) also recognizes as a house a structure on stilts without doors or windows and not divided into rooms?

A roof seems to be the most basic requirement, but we can still recognize a building without a roof - a defective house perhaps but still a house. However, the presence of a roof on a house is so much part of our concept that we would feel obliged to mention the lack of a roof, if we talked about it. So when we write about a house, we don't need to say, 'And by the way it had a roof'. The existence of the roof is taken for granted, unless we explicitly mention that there wasn't one. This has important effects on the way we talk and write. Once the 'house' schema or frame has been activated, the roof is part of the picture, as it were.

The term script has been used for mental representations of various human activities. The best known is the restaurant script. The hypothesis is that when we think about eating in a restaurant - or even just hear the word restaurant - we call up a stored representation involving food, waiters, tables, chairs, etc. We do not need to be told that these things are present because we take them for granted.

CHAPTER TEN

Understanding Anaphora

Anaphora is one of the most difficult topics in teaching English, both as first and second language. Good understanding of anaphora in its different aspects may help teachers do a better job. Following are the major topics for teachers to understand before they teach their students.

Definition. EhVich (1982:315-316) explains that the term 'anaphora' is derived from the Greek word 'anapherein', which means 'to refer to', to relate', In linguistic terminology, the word has two different analytic meanings: (a) it denotes a certain function, namely the activity of 'referring' which is performed by means of a variety of word classes such as the 'article', the 'correlative pronoun', or the 'relative pronoun',; (b)-1t denotes a certain class of expressions, the so-called 'third person pronouns'. Besides its literal meaning of 'backward relation', the word 'refer' has a logical philosophical meaning, I denotes the relationship between a word on the one hand, and an entity in the real world and/or its mental representation on the other,' Employing this later sense of `refer', anaphora can be and usually is described as 'cross-referring': an anaphora is related to a word in what was previously said which, in turn, refers to an entity of the real world and/or its mental representation. The function of anaphora is described with reference to another linguistic activity, namely with activity of referring itself. Anaphors in this sense are seen as words which 'refer' only indirectly, by means of other words. This description of the function of anaphora is compatible with the classical definition of the pronoun 'standing for a noun'. The noun 'refers' to an entity, while the anaphora 'stands for' the noun and 'cross-refers' to the entity.

In Its narrower sense, Crystal (1986:17) defines the term 'anaphora' as "a term used in GRAMMATICAL description for the process or result of a linguistic UNIT referring back to some previously expressed unit or meaning"; and defines the term 'anaphor' as a term used in GENERATIVE LINGUISTICS to refer to a type of NOUN PHRASE which has no independent REFERENCE, but refers to some other sentence CONSTITUENT (its ANTECEDENT). Anaphors include REFLEXIVE PRONOUNS (e.g. myself) and RECIPROCAL PRONOUNS (e.g. each other)".

Thus, a pronoun may have an anaphoric relation with a noun phrase to which it refers. In order to illustrate what we mean by 'anaphora', contrast the following set of sentences:

1. a. Mary and David think everyone loves them.
   b. Mary and David love <u>themselves.</u>
   c. Mary and David love <u>each other.</u>

In sentence (1a), the expression them can either refer back to the NP (Mary and David), or to some other group of people (e.g. John, Jim, Jack, etc.). But themselves in (1b) and each other In (1c) must be interpreted as referring back to the NP (Mary and David), and cannot have' an independent reference, i.e. they cannot refer to some other group of people. An expression which cannot have an independent reference outside the sentence Is called an anaphor: , thus themselves and each other are anaphors, but them is not, as the examples in (1) illustrate. In other words, an anaphor has to take its reference from some other expression, and that expression is known as its 'antecedent'. So, the antecedent of the anaphora themselves and each other in (1b,c) Is the NP (Mary and David).

Discourse Grammar and Sentential Grammar of Anaphora.

To arrive at a coherent and systematic analysis of the pronominal referring expressions in Thai, it is essential to make a distinction between discourse grammar and 'sentential grammar.

1. *Discourse grammar* is also called *'discourse linguistics'*, 'discourse analysis' and 'textlinguistics'. For detailed discussion, see, for examples, Halliday and Hasan (1976), van Dijk (1977),Brown and Yule (1983), Werth (1984), and Cornish (1986).

2. Van Riemsdiik and Williams (1986:184) mention that the notion "sentence grammar" is important to the notion "Logical Form- (LF), and point out sentence grammar" is the theory of sentences as objects, not of their uses in larger frameworks such as discourse or logical argument".

Discourse grammar deals with the, - pragmatic interpretation of pronouns in discourse or set of utterances, using grammatical, phonological, and semantic criteria, e.g. cohesion, coherence, inter-sentence connectivity, etc. It studies the referential function of pronouns In discourse. Hankamer and Sag (1977) call pronouns of this type, 'pragmatically-controlled anaphora'. In this use of the term 'anaphora', the requirement of an antecedent expression in the text is not considered crucial. So, " In this sense, 'anaphora' covers any expression which the speaker uses in referring on the basis of which the hearer will be able to pick out the intended referent given certain contextual and co-textual conditions".(Brown and Yule, 1983:215).

Sentential grammar involves the anaphoric, use and interpretation of pronouns within the sentence, either simple or complex. In a simple sentence, the pronoun and its antecedent occur in the same clause (i.e., they are Intra-clausal) whereas in a complex sentences the two occur in different but connected, through embedding, clauses (i.e., they have cross-clause relation). We may refer to the former as representing 'simple sentence concepts' and the latter as representing 'complex

sentence concepts'. Reflexive and reciprocal pronouns, for instance, are simple sentence concepts in that they refer to the antecedent-anaphor relation within a simple sentence; whereas the third person pronouns and Relative pronouns, denote complex sentence concepts In that the relationships of coreference indicated by them occur In a complex sentence. Thus, under this framework, pronouns are considered *sentence-internal anaphors' where the antecedent anaphor relation plays a crucial role in determining the correct interpretation of the pronouns in a sentence.

While anaphora is understood in terms of various discourse and semantic considerations, it provides a clear instance of the dependency of the semantic interpretation of sentences upon syntactic properties of natural language. As such, it is a test case for competing hypotheses regarding the relations between syntax, semantics and pragmatics in linguistic theory.

Deixis and Anaphora.

As a matter of fact, every utterance is made in a particular place and at a particular time, by a certain speaker to a certain audience. The deictic formatives orientate them by referring to these contexts of situation. Crystal 1985: 86 defines 'deixis' as , "a term used in LINGUISTIC theory to subsume those features of LANGUAGE which refer directly to the personal, temporal or locational characteristics of the SITUATION within which an utterance takes place. whose MEANING is thus relative to that situation". -According to this definition, now/then, here/there, I/you/we, this/that are deictic whereas reciprocal (each other), reflexive (e.g. himself) and third person pronouns (he. she., It, they) are not deictic. Instead they are anaphoric since they refer back to an entity already established. Lyons (1977:673) characterises the different functions of deixis and anaphora in the following manner:

> "Anaphora presupposes that the referent should already have its place in the universe-of-discourse. Deixis does not; indeed deixis is one of the principal means open to us of putting entities into the universe-of-discourse so that we can refer to them subsequently."

As Hintikka and Kulas (1985: 86) observe, anaphora is contrasted with deixis. The reference of an anaphoric expression is determinablewith the help of its linguistic environment whereas the reference or a deictic expression is supplied by the non-linguistic context of an utterance. However, they state that there is no difference in principle between the two. But there is admittedly an important difference between the anaphora that does not involve a step from one subgame to another and the anaphora that does involve such a step. However, the contrast they suggest is different from the distinction between intrasentential anaphora and discourse anaphora.

Coreference and Substitution.

Quirk et al. (1985) point out the difference between coreference and substitution. According to them, coreference is the bond of 'cross-reference` between two items or expressions which refer to the same thing or a set of things. It Is a typical function of personal pronouns such as he and they, as well as a common function of definite noun phrase containing the, this, that, these and those. `Substitution, as the -name sugges antecedent. A major test of substitution, therefore, is whether the antecedent can be copied, without changing the meaning, into A position taken by its proform substitute. For example, oneis a substitute for a first priz (1a) and (2b).

2a. Bob got a first prize this year, and I got one last year.

2b. Bob got a first prize this year, and 1 got a first prize last year.

It is clear that the pronoun one is grammatically and semantically equivalent to a first prize In (2b), but it is also clear that it does not refer to the same prize as does a first prize. In other words, the substitution relation between a proform and its antecedent is not necessary a relation of co reference. Conversely, a relation of co reference between two items is not necessarily a substitution relation. Consider (3), for example.

3. Two players injured themselves during the match. In (3), the two underlined phrases are co referential in that the set of persons denoted by two players Is the same as that denoted by themselves. We could not, however, rep-lace themselves by two players without a change of meaning, as is shown in (4).

4. Two players injured two players during the match.

In addition," ' substitution does not imply an exact copying of an expression. When the repeated expression is restored in the position of the substitute, it may differ from the antecedent, as shown in (5).

5. This shirt is more expensive than the ones (shirts) I saw in the market.

Previous Studies of Anaphora

In order to place our discussion of anaphora in perspective, we will briefly review the major positions on the nature of anaphora that have been advanced in previous literature.

Following Hankamer and Sag (1981:395-396), we divide the positions into two approaches: The (strict) Transformational Position and

The (strict) Interpretative Position. Both approaches to anaphora attempt to treat all anaphoric process formally alike.

(a). The (Strict) Transformational Position

This position assumes that all anaphoric processes are transformations that involve deletion or conversion to a pro-form of an underlyingly present, fully lexical segment or constituent under conditions of Identity with an antecedent segment; It assumes further that this process occurs at a relatively superficial stage in derivations, in particular late enough for the precede-command relations referred to by the Backwards Anaphora Constraint (BAC) to be affected by movement r u l e s . This position which is now called the "classical" position, Is the position assumed in Ross (1967 1969a) , Postal (1970) and virtually in all the early pre-Aspects transformational literature. This position is defended in Postal (1972).

(b). The (Strict) Interpretative Position

This position assumes that all anaphors (pronominal or null) are present in underlying representations and that no anaphor is derived transformationally. The anaphoric relation between an anaphor and its antecedent is assumed to be established by an interpretative rule, this interpretative rule takes place at a relatively superficial level (during the cycle, as assumed by Jackendoff (1972), or at the level of surface structure, as assumed by Wasow (1972), Shopen (1972), Fiengo (1974), and others.

As we can see, the extreme positions (a) and (b) are by no means the only conceivable position on the nature of anaphora. For Instance, the following two intermediate positions have also been proposed.

(a) The Deep Pronoun Hypothesis

One intermediate position, taken by Akmajian (1970) and argued for In Bresnan (1971), is that "pronouns" (nonnull anaphors) are underlyingly present and interpreted at some stage as being anaphorically related to a particular antecedent, while null anaphors result from transformational deletion process.

(b) The ISD (Identity of Sense Deletion) Hypothesis

Grinder and Postal (1971) advance the claim that all identity of sense anaphors arise by deletion, leaving open the possibility that Identity of Reference Anaphora (IRA) involves underlyingly present pro-forms. This is the position argued against in Bresnan (1971), on the

grounds that 'ISA does not behave uniformly with respect to the missing antecedent test.

Both of these Intermediate theories agree that ISA with null anaphors Is transformational (by deletion), and that IRA with nonnull anaphors is nontransformational, the anaphoric relation being assigned interpretatively. They, however. disagree on the nature of ISA with nonnull anaphors.

Apart from these major positions, there are functional approaches to anaphora, such as Evans (1977,1980), Bolinger (1979), Lyons (1977) Wiese (1983), Werth (1984), Seuren (1985), etc. But these approaches will not be discussed here.

Problems with Pronouns in Transformational Grammar

As pointed out by Wasow(1979:202), "the fundamental problem of anaphora Is to determine which features of discourse govern the association of anaphoric pronouns with the appropriate antecedents".

. So far, there have been various attempts to put forward, possible solutions to the problem of anaphoraas already discussed in (1.2). In this sect

(a) "Precede-and-Command Condition"

A first possible solutionto the problem of anaphora was discovered by a number of Investigators. Among them are Lees and Klima (1963),Langacker (1966),Postal(1966), Ross(1967),and Lakoff(1968)- we state Ithere under The heading "Precede-and-Command Condition"(PCC, for short) :

*Precede-and-Command Condition (PCC):*_A noun phrase A may serve as the antecedent for a pronoun B which agrees with A in the relevant features, such as person, number, and gender if and only if either

(a) B follows A in the discourse, or

(b) A and B are in the same sentence, and B does not command A.

A node X Is said to command a node Y if every S dominating X dominates Y. PCC has the effect of permitting backward anaphora only when the pronoun is in a subordinate clause not containing the noun phrase. For illustration, consider (6).

6a. When he woke up, Jack felt better.
6b. He felt better when Jack woke up.

In (6a) Jack may be the antecedent of he but not in (6b), since he commands Jack only in (6b).

PCC enjoyed widespread acceptance by transformational grammarians for some period of time. However, Reinhart (1976, 1981, 1983) discovered that there are several counter examples to PCC[5]. First the range of backward pronominalization Is much wider than PCC predicts. For example, in sentence (7a, b, c, d, e) the pronoun precedes and commands its antecedent but coreference is still possible.

7a. Near him, Dan saw a snake.

b. In her bed, Zelda spent her sweet hours.

c. For his wife, Ben would give his life.

d. How obnoxious to his friends Ben is.

e. Fond of his wife though Ben is, I like her even more.

Furthermore, cases like (7), with preposed constituents, provide a counterexample to the contention that co reference is always possible when the antecedent precedes the pronoun. In these cases forward pronominalization is impossible, as can be seen in (8).

8a. *Near Dan, he saw a snake.

b. *In Zelda's bed, she spent her sweethours.

c. *For Ben's wife, he would give his life.

d. *How obnoxious to Ben's friends he is.

e. *Fond of Ben's wife though he is, - I. like her even more.

Here, there is nothing in the Precede-and-Command condition on co reference to block these sentences; the pronoun is in the proper domain of the antecedent, given the -precede-and- Command definition of domain. In short, the domains defined by PCC are quite arbitrary, since the chunks of the tree preceded and commanded by a given node do not correspond to independent syntactic unit like constituents.[6]

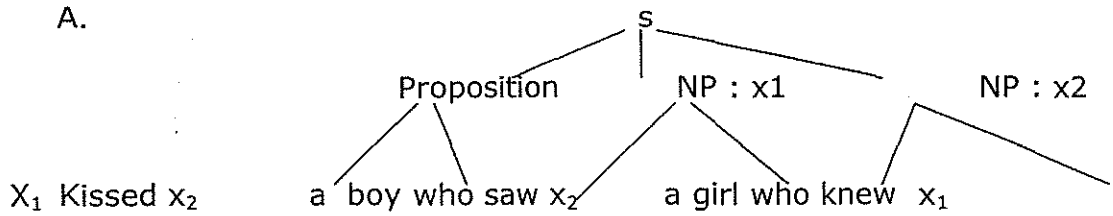
b) Bound Variable Theory (BVT)

Another alternative to PCC which attained considerable currency is called "Bound Variable Theory". Arguments for this theory can be found in many works, including Bach (1968), McCawley (1970, 1973) Harman (1972,

1976), and Fauconnier (1974). The essential feature of all variants of BVT is that each noun phrase position in underlying structure is occupied by a variable, bound by some sort of specification of the noun phrase which is later to occupy that position. For example, McCawley (1973:144-145) sketches an analysis which would derive (9a) from (9b).

9a. A boy who saw her kissed a girl who knew him.

A.



According to McCawley, the attachment of nounphrases to index occurrences takes place sequentially. The process may begin with either x_1 or x_2.What results under the 'Proposition' node will be respectively.

10. A boy who saw x_2 kissed x_2.

11. X_1 kissed a girl who knew x_1.

In (10), both occurrences of x_2 are possible places for attachment of the remaining noun phrase; attaching it to the first occurrence of x_2 yields (12):

12. A boy who saw a girl who knew x 1 (=him) kissed x 2 (=her).

Attaching it to the second occurrence Of x_2 yields (9b). In (11) only the first occurrence of x_1 meets the constraint formulated above, and attaching the noun-phrase there yields (9b).

But this theory proves to be too abstract. Some of its claims (i.e. surface pronouns are transformationally derived from underlying bound variables) have been argued against by Wasow (1975). The essence of the argument is the following: If full, noun phrases and pronoun are derived from the same syntactic source, the rule which creates the difference between them (Pronominalization or Substitution, as the case may be) m u s t apply before any rule which treats pronoun and full noun phrases differently; this leads to ordering paradoxes[7].

However, both the Precede-and-Command Condition and Bound Variable Theory are either inadequate or too abstract for the semantic interpretation of anaphora. We will now consider another solution to the anaphora problem, i.e. C-Command Condition (CCC)

(c) C-Command Condition (CCC)

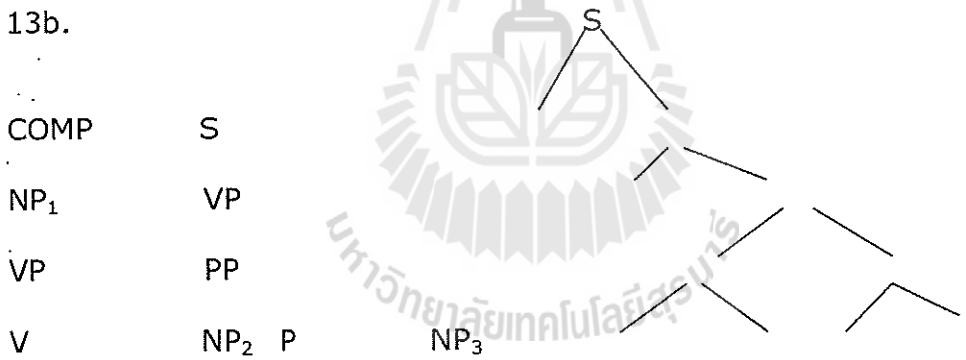
Reinhart (19763 1981, 1983) assumes that what determine co reference or lack thereof between two NPs in a sentence is not the concept of Ross 's and Langacker's Precede-and-Command Condition, but rather that of C (constituent) -Command. She proposes a structural restriction called "Constituent Command" (hereafter C-Command) whose full definition is given hereunder:

"Node A c(onstituent)- commands node B iff the branching node a most immediately dominating A either dominates B or is immediately dominated by a node Lx 2 which dominates B, and cx2 is of the same category type as cx1 ." (Reinhart, 1983:23)

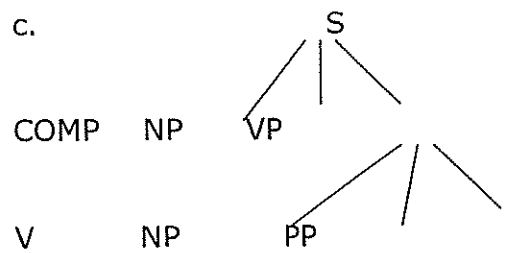
In this version of the definition, the subject of S in (13b) c-commands the comp of s. similarly, the object (NP2 of (13b)) c-commands NPs in the PP (NP3 of (13b)). In other words, it defines identical domains for the N.P nodes-of (13b) and (13c)

13a. Lola found the book in the library.

13b.



c.



Reinhart further assumes that coreference or lack thereof between two NPs in a sentence can be determined effectively on the basis of surface structure configurations alone. She also assumes that the use of the concept of C-Command makes it possible to eliminate the Precede-and-Command Concept. She formulated her condition as follows:

C-Command Condition: A given NP must be interpreted as non-co referential with any' distinct non-pronoun in its c-command domain. (Reinhart, 1983 : 43)

There are some cases where Reinhart's analysis either fails to capture the facts or can do so only with some ad hoc modifications. Such cases involves NPs in prepositional phrases, possessive NPs, and NPs with Experiencing Verbs. The problems pertain primarily to the syntactic aspects of the analysis, i.e. to the c-command requirement. Reinhart (1983:175) admits, "there are three types of constructions where the c-command condition on bound anaphora is violated. Violations may show up show up in other cases as well, but after they vary more with speakers and with a particular choice of examples and are not fully decisive".

However, the notion of C-Command seems to be the most plausible solution to the problem of anaphora. Van Riemsdijk and Williams (1986:142) point out that the notion of C-Command is crucially involved both in movement structures and in anaphoric relations. Essentially, movement must always be to a c-commanding position and an anaphor must always be c-commanded by its antecedent.

The Theory of Binding

The Theory of Binding is one of the important principles in Chomsky's Universal Grammar. It is developed within the Theory of Government and is concerned primarily with the relationship of anaphor and pronominal to their antecedents. This theory makes use of the fundamental notion of 'governing category", which Chomsky (198la:188) characterises as follows:

> "cx is the governing category for B if and only if cx is the minimal category containing B and a governor of B, where cx=NP or S"

Under this framework, nominal expressions or NPs (arguments) are subdivided into three basic categories:

(i) Anaphors
(ii) Pronominals

(iii) R-expressions

Chomsky 1982: 20 states that anaphors include overt categories such as each other himself and the ECs NP-trace and PRO. Pronominals are elements containing the features such as person, gender, number, and possibly Case, and an optional phonological matrix, excluding elements identified as nonpronominal lexical Items (e.g. each other, John). Chomsky regards PRO as pronominal anaphor and R-expressions are neither anaphoric nor pronominal.

Based on the definition of 'governing category' given above Chomsky formulates the basic principles o f the Theory of Binding in the following fashion:

Principles of the Theory of Binding.

A. An anaphor is bound in its governing category
B. A pronominal is free in its governing category
C. An R-expression is free.

While explaining his principles he maintains that the terms free and bound are defined in the customary way, in terms of coindexing by a c-commanding category. More precise1y, we interpret bound (similarly, free) as "locally A-bound". In other words, B is A-bound by cx if B is bound by cx and cx is in an A-position, that is, a position having a GF such as subject or object. The element B is A-bound by cx if it is bound by cx and the 1atter is in an A-position (a non-A-position), such as COMP. Thus, variables are A-bound by their operators in COMP, but an NP-trace or anaphor is A-bound by its antecedent. The element is "locally X-bound" by cx if it is bound by cx (X=A or A) and x is, in the obvious sense, the "closest" binder of B.

In Chomsky (1986a:160)the Principles of the Theory of Binding are adapted as follows:

The Principles of the Theory of Binding

A. An anaphor is bound in a local domain.

B. A pronominal is free in a local domain.

C. An r-expression is free (in the domain of the head of its chain)

As pointed out by Chomsky himself (1982:82-83), the earliest version of the Binding Theory involved three kinds of category: Anaphors, pronominals, and r-expressions. There was one binding principle for each

kind of category. Under the revision eliminating Principle C from the Binding Theory, there are, In principle, four kinds of category: R-expression (neither,- anaphor nor pronominal) pronominal, anaphor, and pronominal anaphor.

C-Command Condition in the Theory of Binding

As a structural restriction on anaphoric relations, Chomsky (198la:166) proposes C-Command Condition as follows.

C-Command Condition

cx c-commands B if and only if

(i) cx does not contain B
(ii) suppose that Y_1 ..... Y_n is the maximal sequence such that
(a) Y_n=ex
(b) Y_i =XXJ
(c) Y_1 immediately dominates yi +1. dominates CK, then either (I)dominates B, or (II) =Y and Y1 dominates B

For illustration of the sense of C-Command Condition above, Chomsky gives the following examples.

14. (i) [s NP vp V....]]
(ii) [AP [A quite [A certain]] [S t to VP]]
(iii) [VP [VP V NP] NP*]
(iv) [NP [NP Det N] [s NP* ...]]

In (i), V does not c-command NP since VP (=Y of (ii) dominates V but not NP. In (ii), however, certain c-commands the trace subject of S, since AP (=Y 1 of (ii) does dominate the trace. Similarly in (iii), V c-commands NP*, just as N c-commands NP* in (iv).

In Chomsky (1986a:162), C-Command Condition is briefly mentioned as:

"cx c-commands every element of its domain that Is not contained within cx."

Here, the domain of cx is the least maximal projection containing cx. When C-Command Condition is defined in terms of Projection Principle it is also termed m-command as Chomsky (1986b:8) puts it:

"cx c-commands B iff cx does not dominate B and every Y that dominates~x dominates

By now, you should be familiar with the concept of "anaphora", its significance, and its previous studies. This will help you improve your teaching of anaphora to your students, especially at Master and Doctoral levels which require deeper knowledge of the subject.

CHAPTER ELEVEN

Using Technology for Language Teaching

Technology, Teachers, and the Student

Teachers have been told that the technological revolution was just around the corner and that we would all be using computers in class on a regular basis' But for a long time that promise (or threat) remained unfulfilled' For most people' computers were a Friday afternoon extra- providing some added entertainment but hardly a central part of a course.

But everything has changed. We have passed the tipping point. Suddenly, new technology is widely available, much cheaper in schools, in people's homes and in their pockets. It is also works and is genuinely useful. This means that teaching is just beginning to undergo a huge change, the implications of which are not yet fully clear

Here is a short list of some key technology in education that must include:

- Interactive whiteboards (IWBs)
- The Internet
- Research tools: search engines, corpora' etc
- Powerpoint and other presentation software
- Free or cheap software
- Tablet computers and netbooks
- iPods, music and podcast players
- Shared learning and social media:wikis, blogs, Twitter, Facebook, MySpace, Hi5, etc.
- Virtual Learning Environments (VLEs), eg Moodle™
- Virtual worlds

Technology and Teachers

How comfortable are you with using new technology? On a continuum from techno- phobic to keen-adopter - where are you? Do you know more about technology than your students – or is it the other way round?

Many of our young students have grown up with 21st Century technology, it is just a part of their normal world: familiar and well understood. They have sophisticated phones, music players, game consoles, netbooks, home computers, GPS systems, digital personal video *immigrant* category – trying hard to catch up and understand–and often having problems.

But we need to be a little wary of buying into these stereotypes of techno-wary teachers struggling to turn on an interactive whiteboard, being helped by keen techno-savvy youngsters. Despite knowing about certain aspects of technology (e.g. a particular social network) many

young people's familiarity may not have much breadth or depth. Just because someone is young doesn't mean that they are *de facto* technologically adept. Just because a teacher is old doesn't mean that they can't use the Internet intelligently.

There are a lot of uses of technology that are specific to education (e.g. Virtual Learning Environments, see Section 5) and it is actually teachers who introduce these things to students.

The 21st Century teacher needs to take the time to be comfortable with those technological tools that are useful for her students. It's no longer acceptable to write off their use with excuses such as *I'm not technical* or i*t's not real teaching* .Technology is at the heart of education now. The question is: how can we best use it to improve teaching and learning?

We need to make sure that we use technology to a real purpose. A computer can't teach your students any more than a blackboard or a cassette recorder can. It is all down to what you do with the tools.

But it is very easy to fall in love with a new tech tool for its own sake. It can take a long time for a teacher to learn how to use a new piece of equipment or software and to feel comfortable with it. The danger is that all your energy goes into that challenge and you don't have the same time for thinking about how you will actually use it with your classes. You need to get past that honeymoon time and get fluent enough with the technology so that you can start to think how to really exploit it.

Interactive Whiteboards

An interactive whiteboard (IWB) is a multi-purpose, touch-sensitive surface, usually attached to a computer and a set of loudspeakers. An image is projected onto the board from a data projector.

- **Write or draw** with a special pen (or your finger), much as you would on a normal board-although the image is electronically created and projected.
- **Save** what you have done for later retrieval.
- **Change or erase** what you have written or start a new page.
- **Show** images, documents and to her resources on you computer, e.g. word-processed texts, Powerpoint shows, music or audio files.
- **Annotate** previously prepared word-processor texts.
- **View** videos and images by using the board as a large computer monitor.
- **Access the Internet** (if the board is connected via cable or wi-fi) projecting the image full-board to the class.
- **Revisit saved digital boards/pages** from your lesson and print them out as handouts for your students.

- **Display and run automated content** There are often many ready-made templates to easily create engaging automated exercises and activities- e.g. quizzes, puzzles, tests.
- **Use commercial IWB materials** Many coursebooks offer IWB versions with animated pages and interactive exercises.

Two main types of IWB

- **Fixed IWB** – an electronic board fixed to the wall, usually in place of the normal board. There is a projector, usually attached to the ceiling and a computer and peripherals somewhere accessible.
- **Portable IWB** – a small box that can be placed at the bottom of a standard non-interactive whiteboard (e.g. using sucker pads) to add interactivity. An alternative portable solution would be to use a tablet PC (e.g. a small-size computer that allows handwritten input via stylus directly on to the laptop screen) which is then projected onto a convenient white wall or board. Of course, both these methods still require a data projector (which can also be portable- but the bulbs tend to be fragile and very expensive).

On a fixed IWB you can usually access most functions by touching your pen to an icon menu down one side of the board. Software for IWBs varies from manufacturer to manufacturer- but there are usually similarities between basic functions:

- **Create a flipchart / notebook** This is the digital collection of all the pages you make.
- **Add a blank page** This gives you a working surface on which to write and draw-or a second or third page as you keep working.
- **Choose pen type** This allows you to select color and thickness of nib.
- **Highlighter** This works like a normal highlighter pen, allowing you to add a bright background color to text.
- **Hide / reveal an item or page** Sometimes you can pull up a mask to cover up sections of text – or create shapes that hide items underneath. There allow you to reveal answers to questions, hidden parts of images, sections of texts and so on.
- **Calibrate / keystone correction** Calibration aligns your pen position with the marks it makes. A badly- calibrated board is nightmare to work with: you write...but the letters might appear five centimeters to the top- right. Keystone correction adjusts the size and shape of the projected rectangle.

Language teachers can use IWBs as a live working surface in class (e.g. to write on as the lesson unfolds), as a display screen to show things you prepared or found prior to the lesson (e.g. a Powerpoint presentation) or as a mixture of both.

How Can You Teach with a TWB?

- **Teach as normal** Forget all the fancy stuff! At its simplest, the IWB provides you with a fine way to teach as you usually do. When you need to use a board, use it as you would any would any board. Start by learning to use the simple tools well, eg different color pens, hiding and revealing text. Integrate enhancements as and when they are useful- for example, going back to the saved board you wrote yesterday to remind students of some specific content- or checking the Internet live in class to confirm the definition of a word – or to find a photo of something you've been talking about.
- **Work live with texts** Although it's not ideal to read long texts from the board, it is a very good way of drawing attention to language detail. So, for example, after students have read and answered questions about a story in their coursebook or handout, you can project it on the board and go through, add notes or underlining, take out sections of text to look at more closely and so on. You can work interactively, filling in tables and templates together.
- **Share learners' work** The board is a great way to show what learners have done. You can display good work, review marked work, discuss drafts and work on them together. Learners can prepare presentations and lead them.
- **Integrate Internet-based materials into the lesson** a whole new world of materials is out there waiting to be used creatively: banks of images (via search engines), news websites, magazines, You Tube videos, stimulating lectures and presentations (e.g. via the TED website), discussion forums on almost any topic you can think of. The IWB makes it simple in the middle of a normal lesson to quickly take a sidestep away from what you are writing to access the Internet (e.g. view a short video clip) and then come bake to the in- class work. Suddenly the whole world is available instantly in your classroom. This is the teacher's dream come true. Though do remember that *integration* is the key; watching a 20- minute video can be just as dull on an IWB as on a TV screen if you don't use it well.
- **Run auto mated exercises e.g. drag and drop** You may find that you (and your students) love using (or creating) automated exercises. They can have a computer- game like quality and may get people doing grammar exercises who would have turned their noses up at them in a book.

Useful optional peripherals

- **Interactive 'voting' buttons** These allow students to select answers and convey them to the board. For example, a teacher might set a multiple choice question to which all students in class send an answer. The teacher will be able to see the percentages of students who got each answer. Depending on the set-up, these votes could be anonymous, allowing the teacher to get an overall impression of what the class think without spotlighting individuals.
- **Tablet computers** These can allow students to write onto the board without actually coming up to the IWB. Similarly, students can see an image of the board on their tablet screens. This may be especially useful in cases where students have trouble reading the IWB itself.
- **Warning notice** One essential peripheral for any IWB is a very large notice (to be placed on the board or right next to it) saying **Do NOT write on this board with ordinary board pens.** When IWBs are first introduced to schools, teachers who have not been inducted often mistake them for normal boards and use whiteboard ink pens on them. These can seriously damage the IWB- so pre-empt and prevent this in any way you can.

Presentation Software

Presentation software is probably better known by its product names: Powerpoint (Microsoft), Keynote (from Apple), the free Impress (OpenOffice) and a growing range of free or paid online options, including Prezi and Presentations (Google Doca).

For many teachers, presentation software has become an important way of organizing, storing and showing learning content. The basic concept is akin to a slide show. Each slide can have pictures, text, audio, video clips in any mixture.

This content can be arranged on the slide in creative ways and can be programmed to appear in a sequence and in animated ways. It is most often used as part of a basic explanation-based input, providing images and text to support what the teacher is saying. A handout could be simply made by printing out reduced images of the actual slides. Learning to use presentation software often looks daunting before you start, but with a 30-minute induction, shouldn't prove much more challenging than using a word processor.

Making Better Inputs

- **Minimal text** Don't write all the words of you input on slides. Go for the least that is enough. Put headings, key words, important ideas. Use these as milestones and signposts to teach around – eliciting, telling, asking questions. Include good examples and diagrams – but not the explanations of them.

- **Be demanding on your clip art** Lots of presentations are filled with clichéd, overuses *clipart* (=royalty-free cartoons and images). If you want to use an illustration, take the time to look for really good images, thought-provoking images, inspiring images. There is a great deal of quality royalty-free stuff out there. It's worth taking a little bit longer to search rather than just dumping a hackneyed cartoon bean character into your show.
- **Make a show with only pictures** A great way of teaching vocabulary. Collect lots of good images, animations (and, perhaps, videos). Use these as a great resource to assist your teaching. Hold back on the urge to fill the slides with lots of words, text and explanations!
- **Animated grammar** Prepare new ways of looking at sentence structures for verb tenses or other grammar items. Use the animation options to move text to make a new ending attaching itself onto a verb or to show how a word changes position.
- **Drills** Reveal words, pictures or other cues one at a time to lead drills in sequenced, innovative and creative ways.
- **Download shows** There are lots of shared, ready-made, copyright-free shows available free online. Personally, I always find it hard to use someone else's lesson, but they can still be great inspiration – and you can always use one as a starting point to edit and adapt for your learners' needs. Repay the debt by uploading your own original shows.
- **Ask yourself** would the class get the same amount of learning if they just took home the show and didn't participate in the classroom input at all? Make sure that you really add to the on-screen content. If the lesson IS the show, why not just give them the show and go home?

Students Using Presentation Software

The best way to use presentation software is get your students actively involved. Ask them to make shows and then present them. This is a great interactive project that seems to motivate all ages. Here are a few ideas for student-created presentations:

- **Present a current news story** Get students to look at online news sites, gather material including images and then present to the whole class, saying what's important and interesting for them. Help to focus students by allowing a maximum of three slides.
- **Research an unlikely topic** Allocate some weird and unexpected topics (e.g. unusual insurance claims, animal ghosts) for students to research and present on.
- **Make a vocabulary lesson** Give a set of connected words and get students to think of how best to teach them using a single slide.

As with many classroom activities, creativity seems to grow better out of restrictions than it does out of complete freedom. Give students unlimited use of Powerpoint and you can get flabby,

unfocused work. Set a restriction and it seems to focus the mind and the work.

Dangers with Presentation Software

Presentation warnings
Imagine you are briefing a new teacher about using presentation software in class. Apart from any technological problems, what warning s might you make about potential educational issues?

Commentary
Powerpoint and similar software packages are great tools – but also have the potential to make teaching even worse. One key problem is that a Powerpoint show is sequenced before the lesson. Once shaped, the presenter is then locked into the pre-arranged order. This hugely reduces the flexibility a teacher needs to jump around and respond to the students as they ask spontaneous questions and pull the lesson in different ways. Don't be averse to re-sequencing as you go: stopping your show, searching through the slides to find the ones you need and then restarting at a different slide. It's curious how rarely this is done; it's all too easy to feel trapped.

Here are three further warnings.

- **Powerpoint = interaction between teacher and IWB** This worrying equation isn't a law of nature – but sadly see ms to be true of too much inexperienced teaching with presentation software: as soon as teachers start using it, the interaction patterns in class change. Instead of inter acting with the students, the teacher interacts mainly with her own words and activities on screen.
- **Death by Powerpoint** Too many slides. Too many words. No interaction. The teacher just reads aloud the words that are printed on the slide. Teaching is not just a slide show. The slide show is not the teaching. Design shows that force you to teach and students to learn.
- **Dead lessons** Adele is a bright young teacher, just qualified. She prepares a powerpoint show about the present perfect to help teach her Pre-intermediate students. It works pretty well. She uses it again with other classes during the year ... and then again next year ... and again next year ... and again next year ... until she retires.

It takes time to put a presentation together properly. You want to get some value back from your investment of work and time – so it's natural to reuse them. But the danger is that the same shows will come out year after year, slowly growing old and mouldy.

All in all, teachers have always built new lessons on older ones – but with presentation, there is a much greater temptation to leave things be, to see the show as finished and complete, letting it slowly set in concrete over the years. Beware of these dead lessons! Find ways to force yourself to upgrade and alter. Make it a personal rule that before you reuse any Powerpoint show you will review it, and as a minimum, delete one slide, add one new slide and change three other things. This helps keep you in touch with the content and keeps your teaching fresh. Success or failure in teaching and learning ultimately depends on you: how you use your knowledge and technology.

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Websites for Language Teachers

www.englishpage.com
www.englishclub.com
www.google.com
Www.teachingenglish.org.uk

Glossary of Some Difficult Terms/Words

Absolute (also called "**nongradable**") **antonyms:** words such as *alive* and *dead* that indicate sharp boundaries in their semantic range; i.e., if one is alive, one isn't dead and vice versa. See **scalar antonyms.**

Anaphor: an expression (e.g., a pronoun) that refers to the same entity as some other expression in a text (its **antecedent**).

Antecedent: an expression (e.g., a noun phrase) sharing the same referent as an **anaphor.**

Antonyms: words with opposite meanings.

Appropriateness conditions (also called "**felicity conditions**"): contextual circumstances that must be present for an utterance to be a successful speech act.

Argument: elements semantically implied by the predicate of a proposition.

Cleft sentence: a sentence of the form *It was x that* .....e.g., *It was his trip west that Oscar enjoyed.*

Coherence: the overall sense of topical relatedness of the parts of a text.

Cohesion: specific expressions in a text that contribute to **coherence.**

Commissives: speech acts which obligate a speaker to a course of action, including promises, threats, vows.

Component (also called "**feature**"): in semantics, a primitive unit of meaning that combines with other such units to form the meaning of individual words.

Context: the circumstances in which a sentence is uttered. See **linguistic context** and **situational context.**

Converses: antonyms that beat symmetrical relations to each other; e.g., *above/below.*

Cooperative Principle: a general principle of communication by which speakers make their conversational contribution fit the stage at which it occurs and the accepted purpose or direction of the talk exchange.

Declarations: speech acts which bring about states of affairs including namings, firings, hirings, pardons, resignations.

Deictic (also called "shifter"); a linguistic expression that indicates deixis.

Deictic center: the setting of deixis assumed by speakers unless specified otherwise

Deixis: the property of a linguistic expression whose reference changes with each occasion of its utterance.

Directives: speech acts which attempt to get the addressee to do something, including questions, requests, orders.

Discourse coherence: See coherence.

Entail: a semantic relationship between two sentences where, if (and only if) one is true, the other must also be true.

Essential condition: a prerequisite for a speech act whereby the speaker intends the utterance to have a certain force.

Existential quantifier: the logical symbol (∃) attached to a proposition indicating that one argument is to be interpreted as "there exists at least one...."

Expressives: speech acts which denote a speaker's psychological state or attitude, including apologies, compliments, greetings, thankings.

Factive predicate: a verb or adjective that presupposes the truth of its complement.

Feature: See **component.**

Felicity conditions: see **appropriateness conditions.**

Hyponym: a word which includes the meaning of a broader word; e.g., *rose* is a hyponym of *flower See* **superordinate.**

Illocutionary act: the communicative goal that a speaker intends to accomplish with an utterance

Implicatures (also called "**conversational implicatures**"): inferences based on the meaning of an utterance, the Cooperative Principle and the maxims and in some cases the context.

Lexical competence: the unconscious knowledge of the meanings and semantic relationships of the words in one's vocabulary

Lexicon: (1) an individual's knowledge of vocabulary (= "mental lexicon") and (2) a linguistic model of the vocabulary of a language

Linguistic context: the actual words and sentences that precede and follow an utterance.

Locution: the linguistic form of an utterance used in a speech act.

Manner: a communicative maxim that enjoins speakers to avoid obscurity and ambiguity and to be brief and orderly.

Maxim: a provision of the Cooperative Principle of communication.

Meronym: a word that is semantically related to another as its part; e.g., *elbow* is a meronym of *arm.*

Metaphoricity: a relationship between two senses of a word, in which one sense is a nonliteral (metaphorical) extension of the other.

Needs Analysis: Ways of finding out (e.g. using questionnaires or interviews) what students need (or want) to study on a language course.

Network: a set of semantic interrelationships among words in the lexicon.

PPP: Presentation, Practice, Production. An approach to grammar lessons based on the idea of giving (presenting) small items of language to students, providing them with opportunities to use it in controlled ways (practice) and finally integrating it with other known language in order to communicate (production) .

Pairwork: Students working with one other student. This may be to discuss something, to check answers or to do a communicative activity.

Phoneme: The basic unit of sound from which we build up words and sentences. For example, the word caught has six letters but only three phonemes: /k/. /c:/ and /t/ .

Phonology: The study of phonemes, intonation, word stress, sentence stress, rhythm and aspects of connected speech.

Practice: Giving the students chances to use the language being studied.

Presentation: The 'giving' or 'input' of (probably new) language to students.

Productive skills: Writing and speaking

Prominence: The main syllables emphasized in a tone group.

Personal deixis: a deictic reference to speakers or addressees; usually centered on the speaker.

Polysemy: the semantic property of a word which has more than one sense.

Predicate: (1) in semantics, the central element of a proposition which determines the number and nature of its arguments and (2) in syntax, the part of a sentence excluding its subject.

Preparatory condition: a prerequisite for a speech act that expresses the contextual background required for that act.

Presupposition: in pragmatics, a proposition whose truth is assumed whether the presupposing sentence is true or false.

Primitive concept: a concept which cannot be analyzed into more basic concepts.

Primitive relations: relations of meaning among words which cannot be analyzed into more basic relations.

Proposition: a semantic structure, composed of a **predicate** and its **arguments,** that expresses the basic literal meaning of a sentence.

Propositional analysis: representing the meaning of a sentence as one or more propositions.

Propositional content condition: a prerequisite for a speech act whereby an utterance indicates the speech act intended and its content.

Pseudo-cleft sentence: a sentence of the form *what.....is x,* e.g. *What Oscar enjoyed was his trip west.*

Quality: a communicative maxim that enjoins speakers to make their contribution one that is true and supported by appropriate evidence.

Quantifier: a logical expression added to propositions to indicate the ways in which arguments are interpreted. See **existential quantifier** and **universal quantifier.**

Quantify: a communicative maxim that enjoins speakers to make their contribution as informative as is required, not more or less so.

Reference: the connection between a linguistic expression (**referring expression**) and the extralinguistic entity that it applies to (referent).

Referring expressions: expressions that pick out things (people, places, objects, activities, qualities, relations, etc.) in the real world or in a fictional one.

Relation (also called "**relevance**"): a communicative maxim that enjoins speakers to make their contribution relevant to the topic of a discourse.

Representatives: speech acts which denote states of affairs, or at least speakers' purported beliefs about states of affairs, including assertions; descriptions, reports, statements.

Restricted exposure: Students read or listen to texts specifically designed to draw attention to language points. The language available for the students to hear or read has in some way been restricted (e.g. a coursebook text containing multiple examples of *used to*) .

Restricted output: Speaking or writing when students use less than the full quantity of language they know. Practice that uses language in ways that are controlled or deliberately simplified (maybe by an instruction or by the nature of a particular task) in a way that makes the load on the students less demanding.

Role play: An activity in which students take on a character or make use of given information or ideas in order to get speaking practice.

Reversives: antonyms in which each indicates the reverse action or state of the other; e.g., *open/close*

Scalar (also called "gradable") antonyms: antonyms that indicate dimensions on a scale; e.g. *strong/weak.* See **absolute antonyms.**

Scanning: A fast reading technique that involves moving the eyes quickly over a whole text in order to locate information eg finding where someone's telephone number is on the page.

Schwa: The phoneme /e/ . (The only one with a name!)

Sentence stress: A common shorthand way of referring to prominence. Not strictly accurate as the stress applies to tone units rather than to sentences.

Selectional restriction: semantic limitations on how words can be combined in close grammatical relationships such as subject and predicate, verb and object, etc.

Semantic field: a group of words related by synonymy, meronymy, antonymy, etc.

Sense: in semantics, a clearly distinguishable meaning of a word.

Sincerity condition: a prerequisite for a speech act that states the beliefs, feelings, and intentions required of the speaker.

Situational context (also called **"extralinguistic context"**): the external setting that accompanies an utterance, including (1) objects in the immediate environment. (2) knowledge shared by speaker and hearer, and (3) level of formality.

Skimming: Reading, usually done quickly, with the aim of understanding the general meaning or 'gist' of a piece of text.

Spatial deixis: a deictic reference to place, usually to the place where speaking occurs.

Speech act: a direct or indirect action carried out by the use of language under specific conditions. See **illocutionary act.**

Stage: One distinct part of a lesson, usually a single activity. Stages may link together to help make a complete lesson.

Stress: See word stress, prominence.

Structure = form.

Substitution tables: Away of writing out grammar information as patterns that can be used for generation of further sentences.

Superordinate (also called "**hypernym**"): a word whose general meaning is included in the meaning of narrower words; e.g., *flower* is a superordinate of *rose; petunia,* etc. See **hyponym.**

Syllabus: A list of course contents.

Synonyms: in semantics, two or more words with the same meaning.

Task: Something students are asked to do. Many tasks are in the form of questions requiring answers, but a task may require students to do things like draw a picture, choose an object from the table, etc. A stricter definition of task would restrict the term to activities that replicate 'real-world' ones.

Temporal deixis: a deictic reference to a specific part of a discourse; e.g., a past or future part.

Test-teach-test: A shorthand description of one way of sequencing stages in a systems-based lesson. First you find out what the learners know or don't know, perhaps by use of a practice activity (test) . You then offer some input on some things that they need to know (teach). You then check whether they understand and can use the new items you have taught (test) .

Truth conditions: the conditions that must be met for a sentence to be true.

Universal quantifier: the logical symbol $(\forall)$ attached to a proposition to indicate that one of its arguments is to be interpreted with the meaning 'all.'

Variable: a part of a logical formula, usually indicated by the letters x, y, and z, which indicates an argument but without denoting any specific individuals.

Verdictives: speech acts which denote an assessment or judgment, including assessments, appraisals, judgments, verdicts.

Vowel: A voiced sound made without any closure, friction or restriction to the flow of air from the lungs.

Weak form: Vowel sounds in unstressed syllables tend to have a weak pronunciation. Compare for when you say it on its own (strong form) and when it comes in the middle of a sentence, e.g. I came back for my books. The vowel sound has changed from /c:/ to /e/ (the schwa, the most common weak form vowel) .

Word stress: The emphasized syllable(s) in a word.

Work plan: Also timetable. The plan of work showing lessons as units and identifying what goes on in each one.

World Englishes: The many varieties of English used in different places around the world.