

PACIFIC LINGUISTICS

Editor: S.A. Wurm
Associate Editors: D.C. Laycock, C.L. Voorhoeve

SERIES C - BOOKS

No. 3

ENGLISH GRAMMAR

A Combined Tagmemic and Transformational Approach

by

Nguyễn Đăng Liêm

A CONTRASTIVE ANALYSIS OF ENGLISH
AND VIETNAMESE

Vol. 1

CANBERRA 1966

THE AUSTRALIAN NATIONAL UNIVERSITY

Second Printing 1970

PACIFIC LINGUISTICS is published by the Linguistic Circle of Canberra and consists of four series:

SERIES A - OCCASIONAL PAPERS

SERIES B - MONOGRAPHS

SERIES C - BOOKS

SERIES D - SPECIAL PUBLICATIONS.

All correspondence concerning PACIFIC LINGUISTICS, including orders and subscriptions, should be addressed to:

The Secretary,
"Pacific Linguistics",
Department of Linguistics,
School of Pacific Studies,
The Australian National University,
Box 4, P.O.,
Canberra, A.C.T. 2600.
Australia.

The copyright in the material of this publication is vested in the author.

The editors are indebted to the Australian National University for help in the production of this series.

This publication was made possible by a grant from the Hunter Douglas Fund.

The first printing of this number appeared as Linguistic Circle of Canberra Publications Series C, Books, No.3.

子路曰：「衛君待子而為政，子將奚先？」
 子曰：「必也正名乎！」
 子路曰：「野哉由也！君子於其所不知，
 蓋闕如也。」
 子曰：「名不正則言不順，言不順則事不成，
 事不成則禮樂不興，禮樂不興則刑罰不中，
 刑罰不中則民無所措手足。」
 子曰：「野哉由也！君子於其所不知，
 蓋闕如也。」

Confucius was asked by Tsze-lû what he would consider the first thing to be done if he were to administer the government of a nation. He replied:

"What is necessary is to rectify names... If names be not correct, language is not in accordance with the truth of things. If language be not in accordance with the truth of things, affairs cannot be carried on to success. When affairs cannot be carried on to success, propertles and music do not flourish, punishments will not be properly awarded. When punishments are not properly awarded, the people do not know how to move hand or foot.

Therefore a superior man considers it necessary that the names he uses may be spoken *appropriately*, and also that what he speaks may be carried out *appropriately*. What the superior man requires, is just that in his words there may be nothing incorrect."

The extract on the previous page is from James Legge, *The Chinese Classics*. Hongkong University Press, Hongkong, 1960, Volume I, pp.363-4.

PREFACE

This is the first volume of a contrastive analysis of English and Vietnamese in the light of a combined tagmemic and transformational approach.

The next two volumes are planned to consist of a Vietnamese grammar, and a contrastive study of English and Vietnamese as the basis for a linguistically oriented technique of teaching English grammar and patterned practice to speakers of Vietnamese, and vice versa.

The subsequent volumes will constitute a study of the phonologies of the two languages and an analysis of them as the theoretical background for the teaching of English pronunciation to Vietnamese, and of Vietnamese pronunciation to English speakers.

All these volumes are in advanced stages of preparation and will appear in the foreseeable future.

S.A. Wurm
Editor

ACKNOWLEDGEMENTS

This contrastive analysis of English and Vietnamese phonology and grammar was carried out under the auspices of The Australian National University, and with a scholarship grant of the Colombo Plan of Australia, I express my thanks to these two Institutions.

I would like to acknowledge my deep obligation to the University of Saigon, and the Department of National Education of Vietnam, for granting me study leave.

To Dr Stephen A. Wurm, my supervisor, I express my gratitude for his teaching, encouragement, advice, and tireless persistence in reading drafts of this study. Special thanks are also due to Dr Donald Laycock, and Dr Herman Bluhme for many valuable suggestions which have been incorporated into the final version.

It was through my former teachers, particularly Professors Albert H. Marckwardt, Robert Lado, Harold V. King, James W. Downer, William J. Gedney, Bryce Van Syoc, Warren G. Yates, and Mr William T. Weir that I was first interested in linguistics and inspired to the study of teaching English as a foreign language. To all of them, I wish to express my appreciation for their teaching and advice during my graduate studies at the University of Michigan, or during my work with the South East Asian Regional English Project of the University.

It is a pleasure to acknowledge my indebtedness to numerous students, friends, and colleagues at the University of Saigon, the National Institute of Administration, the Vietnamese American Association and elsewhere. In particular, I extend my thanks to Professors Lê Văn Thới, Phạm Biểu Tâm, and Trần Quang Đế, Dr Hoàng Gia Linh, Dr Richard S. Pittman, and Dr Arthur Capell for their encouragement during the writing of this manuscript, and to Mrs Sally Sinisoff for her editorial comment and difficult job of typing the English Grammar volume.

To my parents, whose expectation, moral sacrifice, and prayers gave me the encouragement to keep writing this study, I express my reverence.

Canberra,
April 1966.

N. D. L.

GENERAL INTRODUCTION

1. The Vietnamese Language

Vietnamese, spoken by 24,000,000 people¹ in the Indo-Chinese peninsula, is an Austro-Asiatic language.² In the Republic of Vietnam, there are also Chinese spoken by 126,000 people, and Mon-Khmer languages spoken by 300,000 people.³ But Vietnamese is the standard official language to which national sentiment is strongly attached, and which makes use of a Roman alphabet created by Alexander of Rhodes in the seventeenth century. It has a sizable literature with a history of several centuries including poetry and religious works written in Chinese characters (Chữ Hán 字漢), Demotic characters (Chữ Nôm 字南) which are thought to be created in the fourteenth century by Hàn Thuyên, or National (Roman) Alphabet (Chữ Quốc Ngữ 字國語).⁴

Vietnamese is embedded in a national culture which, although deeply influenced by the Chinese Culture, is different from it.

Being now the medium of instruction in elementary, secondary, and higher educational institutions, Vietnamese is always increasing in new technical terms and morphological devices to cope with modern science and technology.⁵

¹ Janet Roberts, "Sociocultural change and communication problems", in Frank A. Rice (ed.), *Study of the Role of Second Languages in Asia, Africa, and Latin America*. Center for Applied Linguistics of the Modern Language Association of America, Washington D.C., 1962, pp.105-123.

² André G. Haudricourt, "La place du Vietnamien dans les langues austro-asiatiques." *Bulletin de la Société de Linguistique de Paris*, 49 (1953), I.122-128.

³ For further detail on minority group languages in Vietnam, see David D. Thomas, "Vietnam Minority Languages". May 1964, Summer Institute of Linguistics in Vietnam, unpublished.

⁴ Nguyễn Đình Hòa, "Chữ Nôm: the demotic system of writing in Vietnamese orthography", *Journal of the American Oriental Society*, 79.4 (Oct.-Dec. 1959), pp.270-274.

⁵ The Faculty of Science of the University of Saigon has been preparing a dictionary of technical and scientific terms in Vietnamese.

2. French and English in Vietnam

Vietnamese high-school students are required to learn two foreign languages, the first one for seven years, and the second one for three years. The increase in the number of students learning French or English as first foreign language is as follows:⁶

<i>Academic Years</i>	<i>Public High-Schools</i>		<i>Private High-Schools</i>	
	<i>French</i>	<i>English</i>	<i>French</i>	<i>English</i>
1958-1959	34,774	18,412		
1959-1960	35,516	27,058		
1960-1961	42,009	32,414		
1961-1962	50,324	36,556	74,851	43,406
1962-1963	57,996	40,753	91,943	66,567
1963-1964	65,853	46,753	100,562	75,218

French, which used to be an official language in the country, still has a higher total number of students enrolled. Meanwhile, English, because of its increasing role in international communication, has a higher ratio of increase of enrolments. The ratio of increase of enrolments has been over 90% for French and over 154% for English in public high-schools in the past six years.

This process proves Alf Sommerfelt's statement to be correct:

"Until our time, French had the lead... In our time, however, the overwhelming influence comes from English because of the leading part the British Commonwealth and the United States play in the modern world... In the view of the development which is going on under our eyes, English ought to be adopted as the main language."⁷

3. Foreign Language Learning and National Development⁸

Because of the "role of language as a cultural institution",⁹ the

⁶ *Annuaire Statistique de l'Enseignement, 1962-1964*, published by the Ministry of National Education of the Republic of Vietnam, p.83.

⁷ Alf Sommerfelt, "An Auxiliary Language" in his *Diachronic and Synchronic Aspects of Language*. Mouton and Co., The Hague, 1962, pp.69-70.

⁸ For further information, see *Second Language Learning as a factor in national development and Recommendations of an International Meeting of Specialists held in London, December 1960*. Center for Applied Linguistics of the Modern Language Association of America, Washington D.C., 1961.

⁹ John B. Carroll, *The Study of Language*. Harvard University Press, Cambridge, 1959, p.169.

value of foreign language learning in the general education of a people is undeniable.

Besides this vital interest to Vietnam to keep abreast of modern international culture, the use of one or more languages of wider communication by a larger segment of its population is an important factor in the economic, social, and educational development of the nation. There are at least two communication needs to be recognized here: transmission of science and technology, and international communication.

Science and Technology: There are urgent needs for the country to have access to the scientific, technical, and economic knowledge of the modern world.

International Communication: Vietnam wishes to enter the international scene and establish effective channels of communication with other nations.

4. Foreign Language Programmes and Linguistics

Leonard Bloomfield discussed in 1933 the ways in which the findings of linguistics could be applied in his book *Language*, Chapter 28, "Applications and Outlook", pp. 496-510.¹⁰

Since then, throughout the Intensive Language Program of the American Council of Learned Societies during World War II, the Army Language Section, the Army Specialized Training Program: Language and Area Section, the Foreign Language and Area Programs of the Provost Marshal General's Office of the Department of the Army, and the recent developments in language teaching manifested by the Cornell Language Program, the Foreign Service Institute of the State Department, the Institute of Languages and Linguistics of Georgetown University, the English Language Institute of the University of Michigan,¹¹ etc., a new concept of applying modern linguistics to the teaching of foreign

¹⁰ Leonard Bloomfield, *Language*. Henry Holt and Co., New York, 1933.

¹¹ For further detail on the history of applied linguistics during the period under discussion, see, for examples:

John B. Carroll, *The Study of Language*. Harvard University Press, Cambridge, 1959, Chapter 6, part on Second Language Teaching, pp. 168-190;

William G. Moulton, "Linguistics and Language Teaching in the United States", in C. Mohrmann, A. Sommerfelt, and J. Whatmough (editors), *Trends in European and American Linguistics 1930-1960*. Spectrum Publishers, Utrecht, 1962, pp. 82-109;

Carleton T. Hodge, "The Influence of Linguistics on Language Teaching". *Anthropological Linguistics* 5.50-58 (1963).

languages has been developed in the United States. This concept of applied linguistics has been systematized mainly by Charles C. Fries,¹² and Robert Lado.¹³

The central idea of this concept is the "importance of the native language in foreign language learning".¹⁴ Each language has its own sound system and grammatical structure. The foreign language learner has already learned a native language extensively enough to grasp and express a variety of experience and he can never again be in the same position as a child learning his own language. He tends to transfer the phonological and grammatical systems of his native language to the foreign language to be learned. This transfer creates a phenomenon of interference,¹⁵ or deviation from the norms of either language which occurs in his speech while he is switching from one language code to another.

This concept of applied linguistics has been carried out in Vietnam in the last few years by the South-East Asian Regional English Project (SEAREP), a University of Michigan-United States Operations Missions Contract, in the training of English teachers at the Faculty of Pedagogy, University of Saigon. The final written results were a set of three text books for intensive courses in English,¹⁶ all of them rewritten by the present author. In broad lines, the writing of these books was deeply influenced by the Lado-Fries series of English text books for Latin American students,¹⁷ and based upon an intuitive but

¹² Charles C. Fries, *Teaching and Learning English as a Foreign Language*. Ann Arbor, Michigan, 1945.

¹³ Robert Lado, *Linguistics across Cultures*. Ann Arbor, Michigan, 1957.

¹⁴ David W. Reed, Robert Lado, Yao Shen, "The Importance of the Native Language in Foreign Language Learning", in *Selected Articles from Language Learning*, Series I, Ann Arbor, Michigan, 1953, pp.121-127.

¹⁵ Uriel Weinreich, *Language in Contact*, New York, 1953, p.3.

¹⁶ Nguyễn Đăng Liêm, *English Pronunciation for Vietnamese*, SEAREP-USOM, Saigon, 1962;
 Nguyễn Đăng Liêm and Staff, *English Grammar for Vietnamese*. SEAREP-USOM, Saigon, 1963;
 Nguyễn Đăng Liêm, *English Pattern Practice for Vietnamese*, Part One, and Part Two. SEAREP-USOM, Saigon, 1963.

¹⁷ Nguyễn Đăng Liêm, "English Grammar for Vietnamese, Teaching and Learning Problems", in Van Hóa Nguyệt San, or *Culture*, monthly Review, published by the Directorate of Cultural Affairs, Ministry of National Education, Saigon, No.88 (Dec. 1963), pp.2033-2040.

not stated linguistically oriented comparison of English and Vietnamese.¹⁸

5. The Present Study

Representative of the recognition of the development of a methodology for the application of the findings of linguistics to the teaching of foreign languages are the facts that the United States Office of Education, under the National Defence Education Act of September 2, 1958, specified the analysis for language teaching in Foreign Language Institutes, and contracted with linguists for an Anthology of Applied Linguistics for the use in the Institutes, and with the Center of Applied Linguistics of the Modern Language Association of America for the development of linguistic contrastive analyses. So far, a series of contrastive studies describing the similarities and differences between English and each of the five languages most commonly taught in the United States (French, German, Italian, Russian and Spanish) have been published or are being prepared.¹⁹

Because of its methodological importance to the teaching of English to Vietnamese speakers, and of Vietnamese to English speakers, the present contrastive analysis of English and Vietnamese grammar and phonology has proved to be necessary.

As it has been said a short while ago, one of the major problems in the learning of a second language is the interference caused by the structural differences between the language to be learned and the language of the learner. Consequently, a contrastive analysis of the two languages will point out learning and teaching problems, and will constitute the basis for the preparation of scientifically oriented instructional materials, the planning of courses according to the relative degrees of difficulties of learning problems, and the development of classroom techniques.

In terms of linguistic theoretical implications, this contrastive analysis is a tentative combination of two leading, if not *the* two

¹⁸ Robert Lado-Charles C. Fries, *English Pronunciation*. Ann Arbor, Michigan, 1954;
 Robert Lado-Charles C. Fries, *English Sentence Patterns*. Ann Arbor, Michigan, 1957;
 Robert Lado-Charles C. Fries, *English Pattern Practices*, Ann Arbor, Michigan, 1958, revised edition;
 Robert Lado-Charles C. Fries, *Lessons in Vocabulary*. Ann Arbor, Michigan, 1956.

¹⁹ Charles A. Ferguson, "General Introduction to the Series", in William G. Moulton, *The Sounds of English and German*. University of Chicago Press, Chicago and London, 1962, pp.v-vi.

leading linguistic theories of the last decade, Tagmemics and Transformational Grammar; it is also an application of the tagmemic model to the preparation of substitution, and development drills, and of the transformational model to the preparation of transformational drills in grammar and pattern practice lessons.

Nevertheless, at the same time, this study, concerned only with the grammatical structures and the sound systems of the two languages, cannot be considered complete for the preparation of text books of either language for native speakers of the other language, seeing that:

"The fundamental purpose or objective of all foreign language teaching is to achieve an understanding as complete as possible between people of different linguistic backgrounds."²⁰

Thus, the present study must be followed by a careful contrastive analysis of the culture or cultures of the English speaking people, and the Vietnamese culture to point out cultural differences, i.e. cultural teaching and learning problems, as Albert H. Marckwardt says:

"Just so, it may be reasonably maintained that contrastive cultural analyses are equally important in terms of language study."²¹

The fact that language is closely related to culture has been pointed out by many a linguist, among them Edward Sapir,²² Benjamin Lee Whorf,²³ and Kenneth L. Pike, who says:

"In sum, then, we may say that the linguist wishes to dis-

²⁰ *The Teaching of Modern Languages, Report on the UNESCO Regional Seminar held in Sydney, January-February 1957.* Australian National Advisory Committee for Unesco, p.15.

²¹ Albert H. Marckwardt, "The Cultural Preparation of the Teacher of English as a Foreign Language" in *Selected Articles from Language Learning No.2.* Ann Arbor, Michigan, 1963, pp.1-4.

²² Edward Sapir, in D.G. Mandelbaum (ed.), *Selected Writings of Edward Sapir*, in *Language, Culture, and Personality.* University of California Press, Berkeley and Los Angeles, 1949, says:

"We see and hear otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation." - p.162.

²³ Benjamin Lee Whorf, in *Collected Papers on Metalinguistics*, Washington D.C., 1952, defines language as:

"...the thought world... the microcosm that each man carries about within himself by which he measures and understands what he can of the macrocosm." - p.36.

cover the structure of language behavior, and obtains its structuring only in reference to that larger behavior field, and relative to the structural units of that larger field, the linguist must on occasion refer to that larger field in order to get access to that frame of reference within which the linguistic units obtain part of their definition."²⁴

Since the meanings expressed in a language are largely behaviourally (or culturally) determined, one cannot understand a language fully without understanding at least the distinct cultural meanings expressed through it. Thus, the foreign language student cannot go far into the language to be learned without facing differences in cultural meanings. He needs to have a substantial knowledge of specific facts concerning the culture, some understanding of the main patterns of thought, beliefs, traditions, appreciation of the values that account for the way the people live and behave, and be able to recognize the significance of the accomplishments of the people.

In learning a foreign culture, the student tends also to transfer the patterns of his native culture to the culture to be learned, both on the production level and on the reception level, as Robert Lado says:

"The student learns the target culture not from scratch as he learned his native one, but with the experience, meanings, and habits of his native culture influencing him at every step. The native-culture experience will facilitate learning those patterns that are sufficiently similar to the function satisfactorily when transferred. The native-culture experiences will interfere with those cultural patterns and meanings that are not equatable with similar ones or that are partly similar but function differently in the target culture."²⁵

In conclusion, a contrastive cultural study is also of greatest importance to the programming of an English or Vietnamese language course for native speakers of the other language.

6. The Choice of Dialects

The purpose of this study is to make a contrastive analysis of English and Vietnamese for pedagogical applications, and not to make a linguistic geography survey of a country. Therefore it is necessary to choose a particular dialect of English, and a particular dialect of Vietnamese, as Zellig S. Harris says:

²⁴ Kenneth L. Pike, *Language*, Part I. Glendale, 1954, p. 27a.

²⁵ Robert Lado, *Language Teaching*. McGraw-Hill, New York, 1964, p. 30.

"The universe of discourse for a descriptive linguistic investigation is a single language or dialect.

These investigations are carried out for the speech of a particular person, or one community of dialectically identical persons, at a time."²⁶

Both in English and Vietnamese, there are not many serious grammatical differences among different standard dialects, but there are a few phonological differences. Thus the choice of dialects matters only in the phonological analyses.

The two dialects chosen for contrastive analysis are: Midwest Standard American English, and Standard Saigon Vietnamese.

6.1. Midwest Standard American English (MSAE)

The problem of choosing which linguistic form should be learned or taught for active production of English when many forms are employed in approximately equivalent manners by different native speakers of the language must be considered in the preparation of text books where, for convenience, materials are centered about a single dialect.

While it is pertinent for advanced students to be exposed to British English, Australian English, New Zealand English, etc., MSAE is chosen for this study, and assumed to be the standard that the Vietnamese student observes in his elementary study of the language. The reasons for this choice are:

- (1) Since a student of a second language will try to speak like the informant or informants who are used as models, MSAE is chosen because it is much more easily observable in Vietnam than any other English dialect;
- (2) MSAE, a standard colloquial speech, is mutually intelligible with other dialects;
- (3) MSAE, like other standard dialects of English, has social, cultural, and literary prestige;
- (4) MSAE has reliable sources of linguistic information, such as descriptive grammars, dictionaries, etc.

6.2. Standard Saigon Vietnamese (SSV)

Since Vietnamese native speakers of the three main dialects of Vietnamese (Hanoi, Hue, Saigon dialects),²⁷ are present in any English classroom in Vietnam, it is obviously unrealistic, for the purpose of

²⁶ Zellig S. Harris, *Structural Linguistics*. The University of Chicago Press, Chicago, 1951, p.9.

²⁷ For an introduction to Vietnamese pronunciation, the Vietnamese writing system and dialect variations, see Lawrence C. Thompson, *A Vietnamese Grammar*. University of Washington Press, Seattle, 1965, pp.3-104.

teaching English in the country, to choose just one dialect of Vietnamese for contrastive analysis while neglecting the other two. The three dialects differ from one another in their phonological systems, mainly in their intonation patterns, but they are perfectly mutually intelligible. An arbitrary choice of SSV, which has the greatest number of speakers in the Republic of Vietnam, has been made here. Nevertheless, as far as teaching and learning problems of English pronunciation are concerned, only the English phonemes which have their equivalents in the Vietnamese phonological common core²⁸ of the three main dialects are considered easy for Vietnamese students. Problems for speakers of any particular Vietnamese dialect are considered as problems for Vietnamese speakers in general, although in practical situations, the sounds considered as difficult may not be problems for speakers of any one particular dialect because in every day contact, speakers of a particular dialect have picked up phonemes of another dialect.

All the arguments given so far have centered about the purpose of teaching English to Vietnamese speakers. Reasons should also be given for this choice of dialects for the purpose of teaching Vietnamese to English speakers.

Considered now as the dialect to be learned by English speakers, SSV, which is a standard dialect like the other two main dialects, was chosen even more arbitrarily than MSAE was chosen as the dialect for Vietnamese students to learn. This arbitrary choice has nevertheless some practical reasons: being the native dialect of the author, SSV can be described by him with greater accuracy.

Likewise, this contrastive analysis is intended to discover teaching and learning problems for English speakers. Thus, it is obviously unrealistic to choose just one dialect of English for comparison. In order to compensate for this arbitrary choice, Vietnamese pronunciation difficulties for speakers of other English dialects (especially British and Australian dialects) will be also presented in the Part on Vietnamese pronunciation for English.

7. Kenneth L. Pike's Philosophy of Language Adopted²⁹

The philosophy of language and model for language structure presented in Kenneth L. Pike's *Language in Relation to a Unified Theory of the Structure of Human Behavior*, Parts I, II, and III (Glendale, 1954, 1955, 1960) are adopted in this study.

²⁸ Charles F. Hockett, *A Course in Modern Linguistics*. The MacMillan Co. New York, 1958, pp. 332ff.

²⁹ Some points in this short discussion have been borrowed from John C. Crawford, *Totontepec Mixe Phonotagmatics*. Summer Institute of Linguistics, Norma, Oklahoma, 1963.

There are four characteristics of Pike's philosophy of language and model for language structure which are basic to this presentation. The brief discussion of these four points made here is not meant to summarize Pike's *Language*. It is only to show the direction that this study will take, and what the major linguistic, and especially extra-linguistic considerations will be which will have to be taken into account for a scientific programming of the teaching of two quite different languages, both in terms of linguistic structural patterns and overall behavioural matrices. The four characteristics, which are closely inter-related, are: (1) Language is viewed as behaviour; (2) Language is hierarchically ordered; (3) Language consists of emic units; (4) Language is tri-modally structured.

7.1. Language is Viewed as Behaviour

Language is not a self-contained system; the behaviour aspects are closely related to linguistic aspects. It is viewed by Pike as being only one part of a larger totality of structured human behaviour. On the one hand, language is inextricably mixed with other aspects of this behavioural totality, and on the other hand, language behaviour constitutes a significant part of this total human behaviour. Consequently, language can only be considered as being in relation to other aspects of the totality of structured human behaviour.

In the light of Pike's statement that language must be viewed as behaviour, some remarks on Vietnamese linguistic behaviour and English linguistic behaviour will be given here. These very brief remarks are only to explain the existence of linguistic difficulties (for speakers of one language to learn the other language) due to the interference of the two different linguistic behaviours.

7.1.1. Vietnamese Linguistic Behaviour

Vietnamese is an uninflectional and, at least phonologically speaking, monosyllabic language. That means that there are only two syntactic and morphological devices in Vietnamese: the use of word order, and the use of function words.³⁰

This limited number of grammatical devices in Vietnamese is closely related to and characteristic of the Vietnamese linguistic behaviour, which would seem to be governed by two behavioural laws: the law of indeterminacy; and the law of simplicity.

Law of Indeterminacy. The Vietnamese language is said to be governed by the law of indeterminacy in the sense that Vietnamese Sentences, both Minor and Major Sentence Types, are not necessarily self-sufficient units, but they can, and usually do, rely on larger linguistic,

³⁰ For the role of function words in English, see Charles C. Fries, *The Structure of English*. Harcourt, Brace and Co., New York, 1952, pp.87ff.

or extra-linguistic matrices which explain or complete their meaning. What is assumed to be known is not repeated in the actual Sentence units. In other words, Vietnamese Sentences are usually contextually Dependent Sentences.

This law of indeterminacy explains also the frequent use of Minor Sentences in a Vietnamese discourse. For example:

A student, coming back from his examinations, looks at his anxious parents and says:

Khó 'difficult' = What I have had as tests were quite difficult.

or: *Được* 'alright' = I have done my examinations well.

or: *Đã quá* 'too bad' = It was too bad. My papers were too bad.

These Minor Sentences comprise or express a number of different notions.

These same Minor Sentences exist also in English, but they must be more numerous in Vietnamese because in Vietnamese, many nucleus Clause level tagmemes are optional while in English the same tagmemes are obligatory, for examples the Subject tagmeme, or the Direct Object tagmeme in full Transitive Clause Types³¹ (see Chapters on English and on Vietnamese Clause Types). For examples:

In English, as an answer to the question "When did you buy this book?", the following Sentence

I bought it yesterday.

In Vietnamese, the following Sentence may be uttered:

Mua hôm qua, literally 'buy day past'.

The Subject tagmeme *I*, and the Object tagmeme *It* are obligatory in English, but optional in Vietnamese.

This law of indeterminacy governs also Major Sentence Types in Vietnamese. As an example of this contextual dependence of Major Sentence Types, the following Sentence can be understood in different ways according to the larger linguistic, or extra-linguistic matrices:

Nó về tôi về +Falling Intonation

He returns I return

The Sentence may mean, according to different contexts:

If he goes home, I'll go home too.

When he goes home, I'll go home too.

Every time he goes home, I go home too.

Because he is going home, I am going home too.

³¹ Lawrence C. Thompson interprets the optional character of the Subject and Direct Object tagmemes in Vietnamese in these terms: "These considerations also suggest that subject and object as presumed universals need careful amendment. It appears that there are syntactic structures (like that of Vietnamese) in which these categories scarcely exist at all; their equivalents appear rather as elements of a modification-and-reference subsystem." - p.618, "Nuclear Models in Vietnamese immediate-constituent analysis", *Language* 41.4: 610-618 (1965).

Because he went home, I went home too.

Since he might be going home, I am going home now, etc.

Law of Simplicity. The Vietnamese language is said to be governed by the law of simplicity in the sense it tends to use simple constructions, and compound constructions, rather than to use complex constructions. On the Sentence level for example, Vietnamese Sentences do not usually have Extra Dependent Introducers such as *bởi vì* 'because', *khi* 'when', and consequently, they do not have a complex internal structure of Clause within Clause. They are more usually Compound Sentences containing successive Clauses which can be coordinated or not. In these Compound Sentences, the different Cause-Effect, Supposition-Consequence, Time-Relativity, etc. relationships will be expressed loosely by Independent Clause Coordinators.

Thus, the Vietnamese Language is said to be governed by the law of simplicity because, instead of using pyramiding structures of constructions within constructions, it tends to use lengthy but simple coordinate successive constructions.

As an example of this law of simplicity, the two facts are stated in their chronological order rather than logical order (i.e. Time-Situation dependence versus government) relationships in the following Major Independent Compound Sentence:

<i>Nó về</i>	<i>nhà</i>	<i>thì</i>	<i>(nó) gặp</i>	<i>một người</i>	<i>khách</i>
he return	house	then	he meet	one person	visitor
(When he returned home,			he met a visitor.)		

The two facts of 'going home' and 'meeting a visitor' are stated in their chronological order rather than in the circumstantial Time situation of the first fact, and the government by the second fact.

This law of simplicity does not mean that there are no Complex Sentence Types with their internal structures composed of pyramiding structures of Clauses within Clauses. It just means that Complex structures are used only when there is a strong pressure for precision (cf. Chapter V of Vietnamese Grammar).

7.1.2. English Linguistic Behaviour

English is an inflectional and polysyllabic language. That means that there are more than two syntactic and morphological devices in English. the use of word order, function words, and inflections.

This relative abundance of grammatical devices in English reflects the English linguistic behaviour, which can be characterized by the law of precision.

English is said to be governed by the law of precision in the sense that even what is assumed to be known is usually repeated in actual Sentence units. Following are some illustrations of this law of precision: In Clause matrices, the repetition of nucleus Subject, and Object tagmemes is obligatory when these Clauses constitute separate

Sentences. Secondary notions of Tense, Concordance, Aspects, etc., are most of the time expressed in Sentences. Clause level relations of Cause-Effect, Supposition-Consequence, etc., are expressed with Complex Sentence structures of Clauses within Clauses.

7.2. Language is Hierarchically Ordered

Language, according to Pike's theory, consists of units of significant layerings and not merely of sequences of units put together like beads on a string. The higher units are partly, but not entirely, determined in terms of lower layered units of which they are composed. The lower units, moreover, occur only in structurally relevant positions within higher layered units in the hierarchy.

There are three different hierarchies in language, the phonological, the lexical, and the tagmemic hierarchies.³²

- (1) The phonological hierarchy builds up through a pyramiding succession of units, phonemes to syllables, syllables to stress groups, stress groups to pause groups, pause groups to emic breath groups, etc.

In the phonology discussion of this study, many phonological levels will not be dealt with because they are not very relevant to a contrastive analysis.

- (2) The lexical hierarchy consists of pyramiding succession of units, morphemes to words, words to phrases, phrases to clauses, clauses to sentences, etc.
- (3) The hierarchy of tagmemic units consists of a pyramiding succession of units labelled as "slot-class correlate" (Pike, *Language*, Chapter 7). These consist of an emic slot, which is a meaningful position in the next higher layer of structure, with a class of items which form the filler class of that slot. The units which constitute the membership of the filler class are morphemic units. The occurrence of these units constitutes the occurrence of the tagmemic unit. The filler classes of morphemic level tagmemes are usually morphemes; the filler classes of word level tagmemes are usually words.

Other higher level tagmemes are phrase level tagmemes, clause level tagmemes, sentence level tagmemes, etc.³³

³² John C. Crawford, in his *Totontepec Mixe Phonotagmemics*, op.cit., sets up four hierarchies instead of three: the phonemic, the phonotagmemic, the lexical, and the tagmemic hierarchy.

³³ Pike, in his "On tagmemes Née Gram(m)emes," I.J.A.L. 24. 273-279 (1958), defines the tagmeme as: "A tagmeme in my view has one of its basic characteristics a correlation between a functional slot and a morpheme (or morpheme sequence, etc.) distribution class".

(continued on page xx)

The present study deals with a contrastive analysis of only two hierarchical aspects of English and Vietnamese, namely phonology and grammar. It leaves out on purpose the third hierarchical aspect of language, lexicon, because there is nothing in common between English lexicon and Vietnamese lexicon to justify the necessity of a contrastive analysis. Nevertheless the present study must be accompanied by a highly sophisticated dictionary of English for the programming of an English course for Vietnamese, and likewise, a highly sophisticated dictionary of Vietnamese for the programming of a Vietnamese course for English. For, as Robert E. Longacre says:

"To describe a language exhaustively (a task as yet seriously attempted by no-one), three volumes are needed: a phonological statement, a grammatical statement, and a highly sophisticated dictionary."³⁴

7.3. Language Consists of Emic Units

Language units are not considered as physical entities per se, but as relevant parts of a structured system or systems. Such structurally relevant parts are termed "emic" in the sense they are in relation to a total structure of a language. They are meaningful, i.e. they are parts of a functioning culturally significant system.

7.4. Language is Trimodally Structured

Each linguistic unit is described in terms of three modes: the feature, the manifestation, and the distribution mode.

The feature mode is comprised of identificational-contrastive components or features which delimit each unit from other units of the same level or of different levels.

The manifestation mode deals with varying occurrences of a unit.

The distribution mode is concerned with the distribution of the unit in question in significant slots in larger units, and in a less

³³ (continued from previous page)

However, certain differences in the usage of the term tagmeme should be pointed out here. In Pike's theory, the tagmeme is the minimum unit of the grammatical hierarchy; all other higher level units in the grammatical hierarchy will be called "hypertagmemes". In this study, the word tagmeme is used in a larger sense, meaning any grammatical emic unit at any level in the grammatical hierarchy concerned. This concept of tagmemes at various ascending levels was developed by Longacre, in his "String Constituent Analysis", *Language* 36.63-88 (1960), and tested by Velma S. Pickett, *Hierarchical Structure of Isthmus Zapotec* (=Language Dissertation No.56). Baltimore, 1960.

³⁴ Robert E. Longacre, *Grammar Discovery Procedures*. Mouton and Co., The Hague, 1964, p.8.

important degree, in the distribution within the unit itself of smaller units. (John C. Crawford, in *op.cit.*, does not consider the criteria of the distribution within the unit itself of smaller units as relevant to the distribution mode of an emic unit because the same distribution of smaller emic units constitutes the manifestation mode of the unit already.)

So far, the three phonological, tagmemic, and lexical hierarchies, and the three modes (feature mode, manifestation mode, and distribution mode) have been discussed separately. But in Pike's theory, there is a close mode-hierarchy interrelationship. There is no space here for a lengthy discussion of this mode-hierarchy interrelationship which, for example, is reflected in the modal structure of a syntagmeme (construction)³⁵ whose feature mode is constituted in units in the lexical hierarchy, whose manifestation mode in units of the phonological hierarchy, and whose distribution mode in units of the tagmemic hierarchy.

8. Presentation in this Study

As its subtitle conveys, this study is a Tagmemic and Transformational Approach to the Teaching of English Grammatical Structure and Sound System to Vietnamese Speakers, and Vietnamese Grammatical Structure and Sound System to English Speakers. It has two Parts: the Grammar Part, and the Phonology Part.

The Grammar Part includes four sections: English Grammar, Vietnamese Grammar, English Grammatical Structure for Vietnamese, Vietnamese Grammatical Structure for English.

Similarly, the Phonology Part deals also with English Phonology, Vietnamese Phonology, English Sound System for Vietnamese, and Vietnamese Sound System for English. Nevertheless, for a better contrastive presentation, these four descriptive and contrastive aspects of consideration are not separate here, but they are regrouped in the sections on Consonants (the Consonants of English, the Consonants of Vietnamese, English Consonants for Vietnamese, and Vietnamese Consonants for English), Vowels (the Vowels of English, etc.), and Intonation.

Since the discovery procedures for the different Parts, or even for the different Sections are usually at variance with each other, different Introductions to the discovery procedures for each Part, or sometimes even for each Section, will be given when it is necessary to do so.

³⁵ The term Syntagmeme is replaced by the term Hypertagmeme by Robert E. Longacre in his "String Constituent Analysis", *op.cit.*, without any change in the underlying theory.

INTRODUCTION TO THE GRAMMAR DISCOVERY PROCEDURES ADOPTED

Charles F. Hockett, in his "Two Models of Grammatical Description",¹ finds that there is partial translatability between two models of grammatical description that he defines *item and arrangement*, and *item and process*. He concludes his article by looking towards an eventual reintegration of the two models in these words:

"We must have more experimentation, as much with a model as with the other - and with the devising of further models too, for that matter - looking towards an eventual reintegration into a single more nearly satisfactory model, but not forcing that reintegration until we are ready for it."

The first volume of Pike's *Language* came out in the same year as Hockett's article. The following year (1955), Noam Chomsky's thesis *The Logical Structure of Linguistic Theory* came out at M.I.T. Since then, both the item and arrangement model (under the form of tagmemics) and the item and process model (under the form of transformational grammar) have been extensively experimented and developed.

William G. Moulton, in his "What is Structural Drill?",² points out that tagmemics can be served as the theoretical foundation for the writing of grammatical substitution drills in foreign language teaching, and that transformational grammar can be served as the theoretical foundation for the writing of transformational drills. Inspired by Moulton's article, the present author makes an attempt in this study to combine the two models of grammatical description for an analysis of English grammar and Vietnamese grammar, as well as for presenting the teaching and learning problems of English grammar for Vietnamese, and of Vietnamese grammar for English. He is pleased to see, in reading Simon Belasco's article, "Tagmemics and Transformational Grammar in Linguistic Analysis",³ that Belasco demonstrates that "one need not

¹ Charles F. Hockett, "Two Models of Grammatical Description", *Word*, 10.210-231 (1954), reprinted in *Readings in Linguistics*, Martine Joos (ed.), ACLS, New York, 1958, pp.386-399.

² William G. Moulton, "What is Structural Drill?", in *Structural Drill and the Language Laboratory*, Francis W. Gravit and Albert Valdman (ed.). Indiana University, Bloomington; Mouton and Co., The Hague, 1963, pp.3-18.

³ Simon Belasco, "Tagmemics and Transformational Grammar in Linguistic Analysis", *Linguistics* 10.5-14 (1964), Mouton and Co., The Hague.

supersede *the other*", p.14 (meaning either tagmemics or transformational grammar need not supersede the other). Now, if "one need not supersede *the other*", then a combination of the two has a good chance to be at least pedagogically applicable.

1. Tagmemic Procedure and Theory

As it was said earlier, the theory of language on which this study is based has been developed by Kenneth L. Pike in his *Language in Relation to a Unified Theory of the Structure of Human Behavior*. This theory offers an excellent methodology for contrastive analysis because it postulates *patterning* as being central to human behaviour. It is a model to present linguistic patterns in straightforward and summary fashion. Such patterns when systematically described for one language may be contrasted with patterns described for another language. Thanks to the notion of hierarchy in language in the theory, such patterns described for two languages can be contrasted on clear-cut levels of consideration, such as Sentence level, Clause level, Phrase level, etc. Furthermore, the notion of tagmeme as slot plus filler-class permits to see whether patterns of two languages differ in their tagmemes (i.e. patterns in one language have some tagmemes that patterns in the other do not), or just in the filler-classes of their tagmemes (i.e. patterns in two languages contain the same functional slots, but the slots are filled by a different number of distribution-subclasses).

For practical grammar discovery procedures, Robert E. Longacre's grammar discovery procedures stated in his *Grammar discovery Procedures* are used with some theoretical modifications as follows:

Firstly, concerning the scope of analysis, the word level analysis is purposely omitted in this study, because since Vietnamese has no inflections or derivations, there is no point in giving a contrastive analysis on the word level. Nevertheless, in English grammar, word level compulsory grammatical categories (for examples case, gender, person-number, etc.) are stated.

Secondly, Phrase level tagmemes are not analyzed for their own sake but as fillers of Clause level slots. The result of this way of presenting is that Phrase level tagmemes are presented in the discussion of internal structures of Clause level tagmemes. For example, the Verb Phrase is presented in the section on the Clause level Predicate tagmeme. This way of presenting is more accurate because, for example, in the analysis of the Noun Phrase as an alternate distribution-subclass of the Clause level Subject filler class, and again if necessary as an alternate distribution-subclass of the Clause level Attributive filler class, it becomes evident that a Noun Phrase can be different when it fills a Subject slot or an Attributive slot. Example: a Determiner is obligatory in a Noun Phrase filling a Subject

slot, but it is omitted in a Noun Phrase filling an Attributive slot -

The president was acclaimed.

John was elected president.

(For further detail on presentation, see Chapter 3 in each Grammar.)

Thirdly, Longacre's requirements for the distinction of two syntagmemes as:

"For two patterns (syntagmemes) to be in contrast they must have more than one structural difference between them; at least one of these differences must involve the nuclei of the syntagmemes",

op.cit. p.18, seem rather difficult to be met when it is to contrast two syntagmemes in Vietnamese.

As a matter of fact, Vietnamese, being an uninflectional language, can rely only upon two grammatical devices, word order, and functional words. This limited number of grammatical devices means that sometimes two different syntagmemes have only one structural difference, or even none. In the latter case, it is possible to find only non-formal differences such as (a) differing transform potential, (b) differing potential of internal expansion, (c) different syntactic meaning, i.e. it is sometimes necessary to rely upon the native speaker's intuition.

It is not necessary to give examples of such cases here, because in the Vietnamese Grammar, wherever Longacre's requirements for the distinction of two syntagmemes are not met, there is always a short theoretical explication defending the differentiation of the syntagmemes.

Even in English, which can make use of more grammatical devices than Vietnamese (word order, function words, inflectional and derivational suffixes), there is also a need to rely upon the native speaker's intuition rather than to require more than one structural difference in the differentiation of two syntagmemes.

Longacre himself, while discussing Noam Chomsky's paper "The Logical Basis of Linguistic Theory" at the Ninth Congress of Linguists, handles the ambiguity in the sentence:

I don't approve of his drinking

"by setting up two contrasting total formulae both of which may have homophonous minimum manifestations:

+Possessive +Gerund ±Object

+Possessive ±Adjective +Nominal".⁴

Thus, it is sufficient to say simply that there may be more of these kinds of homophonous manifestations of contrasting formulae in Vietnamese than in English; then, less formalism is sometimes permitted in the discovering of syntagmemes in Vietnamese.

⁴ In Horace G. Lunt (ed.), *Proceedings of the Ninth International Congress of Linguists*. Mouton and Co., The Hague, 1964, p.998.

2. Transformational Grammar and Grammatical Matrix Theory

Grammatical patterns of a language comprise a system; they are interrelated. There are two ways to show relations among patterns. Both of these ways are incorporated to some degree in this study.

The first way to show relations among grammatical patterns to be discussed here is grammatical matrix theory. The theory, developed by Kenneth L. Pike,⁵ offers a way of showing relations between constructions in general (sentences, clauses, phrases, etc.) by conceptualizing them as charted together in various dimensions. It is applied in the present paper in the charting of Sentence Types and Clause Types of both English and Vietnamese (cf. Chapters II, and V in each Grammar).

The second way is transformational grammar, which is not immiscible with tagmemics. In fact, Pike himself says:

"... so it would seem possible that if tagmemics and transform grammar are both developed far enough, that they could come to the point of complete overlap."⁶

There is even no need to justify the introduction of transformational grammar to the analysis in this paper, but just to quote from Noam Chomsky:

"The motivation for adding transformational rules to grammar is quite clear. There are certain sentences (in fact, simple declarative active sentences with no complex noun or verb phrases - or, to be more precise, the terminal strings underlying these) that can be generated by a constituent structure grammar in quite a natural way. There are others (e.g. passive, questions, sentences with discontinuous phrases and complex phrases that embed sentence transforms) that cannot be generated in an economic and natural way by a constituent structure grammar, but that are systematically related to sentences of simpler structure. Transformations that are constructed to express this relation can thus materially simplify the grammar when used to generate more complex sentences and their structural descriptions from already generated simpler ones."⁷

⁵ Kenneth L. Pike, "Dimensions of Grammatical Constructions", *Language*, 38.221-244 (1962).

⁶ Kenneth L. Pike, *Language*, Part III, p.36b.

⁷ Noam Chomsky, "On the notion of 'Rule of Grammar'", *Proceedings of the Twelfth Symposium in Applied Mathematics* XII.6-24 (1961), reprinted in J.A. Fodor and J.J. Katz (ed.), *The Structure of Language*. New Jersey, 1964, pp.119-136. Quotation, page 129.

The insertion into a tagmemic framework of a transformational model from which notion of transformations and rewrite rules is adapted, requires some theoretical modifications to the model. Following are the differences between the original transformational model and its adapted form used here. It is understood that the following discussion is not a criticism nor an evaluation of transformational grammar.

Firstly, there is a difference in the postulation of grammatical hierarchical levels of consideration.

The transformational model, while defining grammar as a sentence generating device which is able to produce all and only grammatical sentences of a language by means of various kinds of rules for re-writing elements, begins necessarily with the element Sentence⁸ and works down through various levels to the phonemic level⁹ or beyond (to the level of distinctive features).¹⁰

In this study, since "In essence, the clause posits a situation in miniature (whether asserting, questioning, commanding, or equating)"¹¹ the grammatical procedures start with Clause level syntagmemes (Clause Types) rather than with Sentence level syntagmemes. A result of this is that grammatical transforms (transformations) can operate at any level of the grammatical hierarchy, and do not have to be embedded in overall sentence matrices. Thus, for examples, on the Clause level, a Yes-No Interrogative Transform can be applied to any Clause Type of the Independent Declarative Clause Class to derive an Independent Yes-No Interrogative Clause Type (cf. Chapter II in each Grammar), or in the Phrase a Negative (*don't*) Transform or a Negative Auxiliary (or Modal) Transform can be applied to an Affirmative Verb Phrase in English to derive a Negative (*don't*) Verb Phrase or a Negative Auxiliary (or Modal) Verb Phrase (see Section 3.1. in each Grammar).

In postulating Clause level syntagmemes, or Phrase level syntagmemes as possible matrices for transformations, there is no need any more to make a distinction between Singularly Transformations and Generalized Transformations¹² (which is necessary in transformational grammar to make a distinction between Complex Sentences - that, in transformational grammar terms, have more than one Phrase-Structure

⁸ Noam Chomsky, *Syntactic Structures*. Mouton and Co., 1957, pp. 37ff.

⁹ Morris Halle, "Phonology in Generative Grammar". *Word* 18.54-72 (1962).

¹⁰ For a model of distinctive feature analysis in phonology, see, for example, Roman Jakobson and Morris Halle, *Fundamentals of Language*. Mouton and Co., 1956.

¹¹ Robert E. Longacre, *Grammar Discovery Procedures*, p. 35.

¹² Jerrold J. Katz and Paul M. Postal, *An Integrated Theory of Linguistic Descriptions*. The M.I.T. Press, Cambridge, Mass., 1964.

tree in their derivational history - and Simple Sentences - whose derivational history includes only one Phrase-Structure tree - because our transformations operate now on a different grammatical hierarchical level than the Sentence level. Then, on the Sentence level, the classification of Sentences into Simple, Compound, and Complex Sentence Types is based upon the number and nature of Clause Types they contain (cf. Chapter V in each Grammar).

Secondly, there is a different usage of the term *kernel* on the early form of Transformational Grammar¹³ and here. The term has a larger meaning here in two ways.

In *Syntactic Structures*, Chomsky defines kernel sentences as "the set of sentences that are produced when we apply obligatory transformations to the kernel strings of the (phrase structure) grammar", p.45. In other words, there are no kernel strings in other grammatical hierarchical levels except in the Sentence level, and there are no kernel strings that have undergone an optional transformation.

The term kernel as used here has a larger meaning in the first way in the sense that there can be kernel strings or structures on any grammatical hierarchical level. A kernel is any structure to which a Transform (transformation) can be applied. Thus, for examples, on the Clause level, an Independent Declarative Clause Type is the kernel structure to which the Yes-No Interrogative Transform can be applied to derive an Independent Yes-No Interrogative Clause Type, or an Affirmative Verb Phrase is the kernel structure to which a Negative (*don't*) Transform, or a Negative Auxiliary (or Modal) Transform can be applied to derive a Negative Verb Phrase in English.

The term kernel as used here has a larger meaning in the second way in the sense that it means a basis for transformation: a kernel structure can have undergone optional transformations (Chomsky's types of optional transformations).¹⁴ As an illustration, the following Independent Declarative Clause "he went to Sydney" is the kernel structure to which the Yes-No Interrogative Transform is applied to derive the Independent Yes-No Interrogative Clause "did he go to Sydney", which in its turn is the kernel structure to which the Extra Interrogative Transform is applied to derive the Independent Extra Interrogative Clause "when did he go to Sydney"¹⁵ (cf. Chapter II in

¹³ Paul Schachter, in his "Kernel and Non-Kernel Sentences in Transformational Grammar", in Horace G. Lunt (ed.), *op.cit.*, pp.692-696, demonstrates the relative triviality of the distinction made between kernel and non-kernel sentences in early models of Transformational Grammar.

¹⁴ Noam Chomsky, *Syntactic Structures*, pp.45ff.

¹⁵ Zellig S. Harris, in his "Co-occurrence and Transformation in Linguistic Structure", *Language*, 33.293-340 (1957), stresses that any sentence in the language may be used as the basis for transformation. In a sense, the transformational model adapted in the present study is closer to Harris's theory than to Chomsky's in the definition of kernel structures.

each Grammar).

Thirdly, seeing that in learning English or Vietnamese as a foreign language, one has to master the intonation pattern of the language, and since the ultimate purpose of the present study is for pedagogical applications, intonation is considered here as an important component of Sentences. Consequently, it is stated in structural formulae of Sentence Types in this study, while it is not stated in transformational grammar.¹⁶

Fourthly, and last in the list, since a statement in terms of item and process needs an adequate statement of item units before the process can be most effectively implied, the grammatical model here attempted differs from current transformational grammar by setting up the item units, namely tagmemes at all grammatical hierarchical levels.¹⁷ This postulation of item units for a generative grammar is urged by Pike in these terms:

"At some point, it would seem, transform grammar needs a further unit to be identified and transformed. It is our belief that the tagmeme, or something very much like it in structure, is needed for this purpose in transform grammar."¹⁸

(For overall statements on the postulation of tagmemes on different grammatical levels and Phrase-Structure representations, see Appendices in each Grammar.)

¹⁶ Robert P. Stockwell, in his "The Place of Intonation in a Generative Grammar of English", *Language*, 36.3 pp.360-367, does the pioneering work to incorporate intonation into generative grammars. His first generative rule is $S \rightarrow \text{Nuc.} + \text{IP}$ (Intonation Pattern), and his second rule is $\text{Nuc.} \rightarrow \text{NP} + \text{VP}$ (Chomsky's $S \rightarrow \text{NP} + \text{VP}$).

¹⁷ I am indebted to Dr Robert E. Longacre for informing me that my combined tagmemic and transformational approach is very parallel to his own in "Transformational Parameters in Tagmemic Field Structures", *Georgetown Monograph Series*, volume reporting the Round Table held in March 1965, pp.43-58. In the article, he says: "Tagmemics can gain many valuable insights from transformational grammar. Transformational grammar could learn some things from tagmemics as well: more explicit functional orientation; use of function-set notation to clarify transformation rules; and sufficient attention to field structures to fit transformations in adequate context", p.58. For examples of "transformational parameters", see Chapters 2 in both my English Grammar, and Vietnamese Grammar.

¹⁸ Kenneth L. Pike, *Language*, Part III, p.36b.

TABLE OF CONTENTS

	<i>Page</i>
<i>PREFACE</i>	v
<i>ACKNOWLEDGEMENTS</i>	vi
GENERAL INTRODUCTION	vii
INTRODUCTION TO THE GRAMMAR DISCOVERY PROCEDURES ADOPTED	xxii
<i>SPECIAL SIGNS AND ABBREVIATIONS</i>	xliii
Chapter 1: INDEPENDENT DECLARATIVE CLAUSE TYPES	1
1.0. Introductory	1
1.1. Classification	1
1.2. Clause Classes and Pertinent Remarks	3
1.2.1. Selection of the form of the Predicate	3
1.2.2. The Passive Transitive Clause Class	4
1.2.2a. The Passive Transform	4
1.3. Independent Declarative Clause Types in Detail	5
1.3.0. Introductory	5
1.3.0.1. Minimum Nucleus Formulae	5
1.3.0.2. Expanded Maximum Formulae	5
1.3.1. Independent Declarative Clause Type 1: Active In-transitive Declarative Clause Type	6
1.3.2. Independent Declarative Clause Type 2: Active Single Transitive Declarative Clause Type	7
1.3.3. Independent Declarative Clause Type 3: Active Double Transitive Declarative Clause Type	8
1.3.3a. The Indirect Object Transform	9
1.3.4. Independent Declarative Clause Type 4: Active Attributive Transitive Declarative Clause Type	10
1.3.5. Independent Declarative Clause Type 5: Passive Single Transitive Declarative Clause Type	11
1.3.6. Independent Declarative Clause Type 6: Passive Double Transitive Declarative Clause Type	13
1.3.7. Independent Declarative Clause Type 7: Passive Attributive Transitive Declarative Clause Type	15
1.3.8. Independent Declarative Clause Type 8: Equational Declarative Clause Type	16
1.3.9. Independent Declarative Clause Type 9: (<i>There</i>) Stative Declarative Clause Type	17
1.3.10. Independent Declarative Clause Type 10: (<i>It</i>) Stative Declarative Clause Type	18

	<i>Page</i>
1.3.10a. Some other uses of the obligatory nucleus Logical Subject (<i>It</i>)	20
Chapter 2: CLAUSE CLASSES	21
2.0. Classification	21
2.1. Clause Classes in Detail	24
2.1.0. Introductory	24
2.1.1. (Independent) Declarative Clause Class	24
2.1.2. (Independent) Imperative Clause Class	25
2.1.3. (Independent) Yes-No Interrogative Clause Class	25
2.1.3a. The Yes-No Transform	28
2.1.4. (Independent) Interrogative Subject Clause Class	28
2.1.4a. The Interrogative Subject Transform	28
2.1.4b. The obligatory nucleus Interrogative Subject tagmeme	28
2.1.5. (Independent) Interrogative Non-Subject Clause Class	30
2.1.5a. The Non-Subject Interrogative Transform	30
2.1.5b. The obligatory nucleus Interrogative Non-Subject tagmeme	30
2.1.5b.1. Alternate division-subclass Interrogative Direct Object tagmeme	32
2.1.5b.2. Alternate division-subclass Interrogative Indirect Object tagmeme	32
2.1.5b.2a. Note on the Indirect Object Introducer (<i>to</i>)	32
2.1.5b.3. Alternate division-subclass Interrogative Attributive tagmeme	32
2.1.5b.4. Alternate division-subclass Interrogative Equational Complement tagmeme	33
2.1.5b.5. Alternate division-subclass Interrogative Stative Subject tagmeme	33
2.1.5b.6. Alternate division-subclass Interrogative Stative Complement tagmeme	33
2.1.6. (Independent) Extra Interrogative Clause Class	34
2.1.6a. The Interrogative Addition Transform	34
2.1.6b. The obligatory nucleus Interrogative Clause Introducer	34
2.1.7. Dependent Subject Clause Class	36
2.1.7a. The Dependent Subject Transform	36
2.1.7b. Obligatory nucleus Dependent Subject tagmeme	36
2.1.8. Dependent Non-Subject Clause Class	36
2.1.8a. The Non-Subject Dependent Transform	39
2.1.8b. The optional nucleus Dependent Non-Subject tagmeme	39
2.1.8b.1. Alternate division-subclass Dependent Direct Object tagmeme	39
2.1.8b.2. Alternate division-subclass Dependent Indirect Object tagmeme	39
2.1.8b.2a. Note on the Indirect Object Introducer (<i>to</i>)	40

	<i>Page</i>
2.1.8b.3. Alternate division-subclass Dependent Equational Complement tagmeme	40
2.1.9. Dependent Relative Clause Class	40
2.1.9a. The Relative Dependent Transform	42
2.1.9b. The optional nucleus Dependent Relative Clause Introducer	42
2.1.10. Extra Dependent Clause Class	42
2.1.10a. The Dependent Addition Transform	44
2.1.10b. Obligatory Dependent Clause Introducer tagmeme	44
2.2. The ten complete Clause Classes and their Transforms	44
2.3. The 87 complete Clause Types	44
Chapter 3: INTERNAL STRUCTURES OF CLAUSE LEVEL TAGMEMES	48
3.0. Introductory	48
3.1. Nucleus Clause Level tagmemes	48
3.1.0. Introductory	48
3.1.1. The obligatory nucleus Predicate tagmeme	48
3.1.1.1. Internal Structure of the Verb Phrase Hyperclass	49
3.1.1.1.1. Close-knit Active Verb Phrase	49
3.1.1.1.2. Close-knit Passive Verb Phrase	52
3.1.1.1.3. Close-knit Negated Declarative Verb Phrases	55
3.1.1.1.3.1. The alternate division-subclass Negated Declarative (<i>don't</i>) Verb Phrase	55
3.1.1.1.3.2. The alternate division-subclass Negated Declarative (<i>n't</i>) Verb Phrase	56
3.1.1.1.3.2a. Note on the form (<i>n't</i>)	57
3.1.1.1.4. Close-knit Interrogative Verb Phrases	57
3.1.1.1.4.1. The alternate division-subclass Interrogative (<i>do</i>) Verb Phrase	57
3.1.1.1.4.1a. Negation of the Interrogative (<i>do</i>) Verb Phrase	58
3.1.1.1.4.2. The alternate division-subclass Interrogative Modal (or Auxiliary) Verb Phrase	59
3.1.1.1.4.2a. Negation of the Interrogative Modal (or Auxiliary) Verb Phrase	60
3.1.1.1.5. Verb Phrase Substitutes	61
3.1.1.1.5.1. The alternate division-subclass Substitute (<i>do</i>) Phrase	61
3.1.1.1.5a. Negation of the Substitute (<i>do</i>) Phrase	61
3.1.1.1.5.2. The alternate division-subclass Substitute Modal (or Auxiliary) Phrase	62
3.1.1.1.6. The optional satellite Delimiter tagmeme	63
3.1.1.2. Verb stem classes, division-subclasses, and co-occurrence-subclasses	63
3.1.1.2.1. The Intransitive Verb stem class	64
3.1.1.2.1.1. The Intransitive Verb stem _s alternate division-subclass	64

	<i>Page</i>
3.1.1.2.1.2. The Intransitive Verb stem _{prep} alternate division-subclass	64
3.1.1.2.2. The Single Transitive Verb stem class	64
3.1.1.2.2.1. The Single Transitive Verb stem _s alternate division-subclass	64
3.1.1.2.2.1.1. The Single Transitive Verb stem _{s1} co-occurrence-subclass	65
3.1.1.2.2.1.2. The Single Transitive Verb stem _{s2} co-occurrence-subclass	65
3.1.1.2.2.1.3. The Single Transitive Verb stem _{s3} co-occurrence-subclass	65
3.1.1.2.2.1.4. The Single Transitive Verb stem _{s4} co-occurrence-subclass	66
3.1.1.2.2.1.5. The Single Transitive Verb stem _{s5} co-occurrence-subclass	66
3.1.1.2.2.1.6. The Single Transitive Verb stem _{s6} co-occurrence-subclass	66
3.1.1.2.2.1.7. The Single Transitive Verb stem _{s7} co-occurrence-subclass	67
3.1.1.2.2.1.8. The Single Transitive Verb stem _{s8} co-occurrence-subclass	67
3.1.1.2.2.1.9. The Single Transitive Verb stem _{s9} co-occurrence-subclass	67
3.1.1.2.2.1.10. The Single Transitive Verb stem _{s10} co-occurrence-subclass	68
3.1.1.2.2.1.11. The Single Transitive Verb stem _{s11} co-occurrence-subclass	68
3.1.1.2.2.1.12. The Single Transitive Verb stem _{s12} co-occurrence-subclass	69
3.1.1.2.2.2. The Single Transitive Verb stem _{prep} alternate division-subclass	69
3.1.1.2.2.2.1. The Single Transitive Verb stem _{prep1} co-occurrence-subclass	69
3.1.1.2.2.2.2. The Single Transitive Verb stem _{prep2} co-occurrence-subclass	69
3.1.1.2.3. The Double Transitive Verb stem class	70
3.1.1.2.3.1. The Double Transitive Verb stem _n alternate division-subclass	70
3.1.1.2.3.1.1. The Double Transitive Verb stem _{n1} co-occurrence-subclass	70
3.1.1.2.3.1.2. The Double Transitive Verb stem _{n2} co-occurrence-subclass	71
3.1.1.2.3.1.3. The Double Transitive Verb stem _{n3} co-occurrence-subclass	71
3.1.1.2.3.2. The Double Transitive Verb stem _v alternate division-subclass	72

	<i>Page</i>
3.1.1.2.3.2.1. The Double Transitive Verb stem _{v1} co-occurrence-subclass	72
3.1.1.2.3.2a. Note on the Double Transitive Clause Type	72
3.1.1.2.3.2.2. The Double Transitive Verb stem _{v2} co-occurrence-subclass	73
3.1.1.2.3.2.3. The Double Transitive Verb stem _{v3} co-occurrence-subclass	73
3.1.1.2.4. The Attributive Transitive Verb stem class	74
3.1.1.2.4.1. The Attributive Transitive Verb stem _{part} co-occurrence-subclass	74
3.1.1.2.4.2. The Attributive Transitive Verb stem _{adj} co-occurrence-subclass	74
3.1.1.2.4.3. The Attributive Transitive Verb stem _n co-occurrence-subclass	74
3.1.1.2.5. The Equational Verb stem class	75
3.1.1.2.5.1. The Equational Intransitive Verb stem alternate distribution-subclass	75
3.1.1.2.5.1.1. The Equational Intransitive Verb stem _{part} co-occurrence-subclass	75
3.1.1.2.5.1.2. The Equational Intransitive Verb stem _{adj} co-occurrence-subclass	75
3.1.1.2.5.1.3. The Equational Intransitive Verb stem _n co-occurrence-subclass	76
3.1.1.2.5.2. The Semi-Auxiliary stem alternate distribution-subclass	76
3.1.1.2.5.2.1. The Semi-Auxiliary stem _{n-adj} co-occurrence-subclass	76
3.1.1.2.5.2.2. The Semi-Auxiliary stem _{adj} co-occurrence-subclass	77
3.1.1.2.5.3. The Auxiliary (be) stem alternate distribution-subclass	77
3.1.1.2.6. The Auxiliary (be) stem	78
3.1.2. The obligatory nucleus Subject tagmeme	78
3.1.2.1. The Noun Phrase alternate distribution-subclass	78
3.1.2.1.1. The Noun _{Noun} Phrase alternate division-subclass	79
3.1.2.1.1.1. The Common Noun _{Noun} Phrase alternate division-subclass	79
3.1.2.1.1.1.1. The Common Noun _{Noun-Count} Phrase alternate division-subclass	79
3.1.2.1.1.1.1.1. The Common Noun _{Noun-Count.Singular} Phrase co-occurrence-subclass	79
3.1.2.1.1.1.1.2. The Common Noun _{Noun-Count.Plural} Phrase co-occurrence-subclass	81

	<i>Page</i>
3.1.2.1.1.1.2. The Common Noun _{Noun-Mass} Phrase alternate division-subclass	82
3.1.2.1.1.1a. Optional satellite tagmemes of the Common Noun _{Noun} Phrase	83
3.1.2.1.1.1a.1. The optional satellite Pre-Determiner tagmeme	83
3.1.2.1.1.1a.2. The optional satellite Ordinal tagmeme	84
3.1.2.1.1.1a.3. The optional satellite Numeral tagmeme	84
3.1.2.1.1.1a.4. The optional satellite Modifier 1 tagmeme	85
3.1.2.1.1.1a.4.1. The alternate distribution-subclass Adjective Phrase	85
3.1.2.1.1.1a.4.1a. The Adjective stem class	86
3.1.2.1.1.1a.4.2. The alternate distribution-subclass Verb _(-en) Phrase	86
3.1.2.1.1.1a.4.3. The alternate distribution-subclass Verb _(-ing) Phrase	87
3.1.2.1.1.1a.5. The optional satellite Modifier 2 tagmeme	87
3.1.2.1.1.1a.6. The optional satellite Post-Modifier tagmeme	88
3.1.2.1.1.1a.6.1. The alternate distribution-subclass Complex Modifier 1	89
3.1.2.1.1.1a.6.2. The alternate distribution-subclass Location Adverb Phrase	89
3.1.2.1.1.1a.6.3. The alternate distribution-subclass Location Relator Axis Phrase	90
3.1.2.1.1.1a.6.4. The alternate distribution-subclass Noun Phrase	90
3.1.2.1.1.1a.6.5. The alternate distribution-subclass (to) Verb Phrase	90
3.1.2.1.1.1a.6.6. The alternate distribution-subclass Appositive Phrase	91
3.1.2.1.1.1a.6.7. The alternate distribution-subclass Reflexive Pronoun	91
3.1.2.1.1.1a.6.8. The alternate distribution-subclass Dependent Clause	92
3.1.2.1.1.2. The Proper Noun _{Noun} Phrase alternate division-subclass	93
3.1.2.1.1.2.1. The Personal Proper Noun _{Noun} Phrase co-occurrence-subclass	93
3.1.2.1.1.2.2. The Non-Personal Proper Noun _{Noun} Phrase alternate division-subclass	93
3.1.2.1.1.2.2.1. The Non-Personal Proper Noun _{Noun1} Phrase co-occurrence-subclass	94
3.1.2.1.1.2.2.2. The co-occurrence-subclass Non-Personal Proper Noun _{Noun2} Phrase	94

	<i>Page</i>
3.1.2.1.2. The Nominalized Adjective Phrase alternate division-subclass	95
3.1.2.1.2a. The Nominalized Adjective Phrase alternate division-subclass	96
3.1.2.1.3. The Nominalized Verb _(-en) Phrase alternate division-subclass	97
3.1.2.1.4. The Nominalized Verb _(-ing) Phrase alternate division-subclass	97
3.1.2.1.4a. Note on the Nominalized Verb _(-ing) Phrase	98
3.1.2.2. The Pronoun Phrase alternate distribution-subclass	98
3.1.2.2.1. The Personal Subject Pronoun Phrase alternate division-subclass	98
3.1.2.2.2. The Indeterminate Pronoun Phrase alternate division-subclass	99
3.1.2.2.3. The Demonstrative Pronoun Phrase alternate division-subclass	99
3.1.2.2.4. The Possessive Pronoun Phrase alternate division-subclass	100
3.1.2.2.5. The Possessive Case Phrase alternate division-subclass	100
3.1.2.3. The Relator Axis Phrase alternate distribution-subclass	100
3.1.2.4. The Verb Phrase alternate distribution-subclass	100
3.1.2.4.1. The (to) Verb Phrase alternate division-subclass	100
3.1.2.4.2. The Verb _(-ing) Phrase alternate division-subclass	101
3.1.2.5. The Dependent Clause alternate distribution-subclass	101
3.1.2.6. The Defective Clause distribution-subclass	102
3.1.3. The obligatory nucleus Direct Object tagmeme	102
3.1.3.1. Noun Phrase alternate distribution-subclass	103
3.1.3.2. The Pronoun Phrase alternate distribution-subclass	103
3.1.3.2.1. The Personal Object Pronoun Phrase alternate division-subclass	103
3.1.3.3. Adverb Phrase alternate distribution-subclass	104
3.1.3.4. The Verb Phrase alternate distribution-subclass	104
3.1.3.5. The Dependent Clause alternate distribution-subclass	105
3.1.3.5.1. The Declarative Dependent Clause Type alternate division-subclass	105
3.1.3.5.2. The Subjunctive Dependent Relative Clause alternate division-subclass	106
3.1.3.6. The Defective Clause alternate distribution-subclass	106
3.1.4. The obligatory nucleus Indirect Object tagmeme	106
3.1.4.1. The Noun Phrase alternate distribution-subclass	107
3.1.4.2. The Pronoun Phrase alternate distribution-subclass	107
3.1.4.3. The Dependent Clause alternate distribution-subclass	108

	<i>Page</i>
3.1.5. The obligatory nucleus Attributive tagmeme	108
3.1.5.1. The Noun Phrase alternate distribution-subclass	109
3.1.5.1.1. The Noun Phrase alternate division-subclass	109
3.1.5.1.2. The Attributive Noun Phrase alternate division-subclass	109
3.1.5.2. The Adjective Phrase alternate distribution-subclass	109
3.1.5.3. The Verb(_{-en}) Phrase alternate distribution-subclass	109
3.1.6. The obligatory nucleus Equational Complement tagmeme	110
3.1.6.1. The Noun Phrase alternate distribution-subclass	110
3.1.6.2. The Pronoun Phrase alternate distribution-subclass	111
3.1.6.3. The Adjective Phrase alternate distribution-subclass	111
3.1.6.4. The Verb(_{-en}) Phrase alternate distribution-subclass	111
3.1.6.5. The Verb Phrase alternate distribution-subclass	112
3.1.6.6. The Location Adverb Phrase alternate distribution-subclass	112
3.1.6.7. The Location Relator Axis Phrase alternate distribution-subclass	112
3.1.6.8. The Dependent Clause alternate distribution-subclass	113
3.1.6.9. The Defective Clause alternate distribution-subclass	113
3.1.7. The obligatory nucleus Stative Subject tagmeme	113
3.1.7.1. The Noun Phrase alternate distribution-subclass	114
3.1.7.2. The Pronoun Phrase alternate distribution-subclass	114
3.1.7.3. The Dependent Clause distribution-subclass	115
3.1.8. The obligatory nucleus Stative Complement tagmeme	115
3.1.8.1. The Noun Phrase alternate distribution-subclass	116
3.1.8.2. The Pronoun Phrase alternate distribution-subclass	116
3.1.8.3. The alternate distribution-subclass Dependent Clause	117
3.1.9. The optional nucleus Agent tagmeme	117
3.1.9.1. The Noun Phrase alternate distribution-subclass	117
3.1.9.2. The Pronoun Phrase alternate distribution-subclass	118
3.1.9.3. The Dependent Clause alternate distribution-subclass	119
3.2. Optional satellite Clause level tagmemes	119
3.2.0. Introductory	119
3.2.1. The optional satellite Indirect Object tagmeme	120
3.2.2. The optional satellite Accompaniment tagmeme	121
3.2.3. The optional satellite Benefactor tagmeme	121
3.2.4. The optional satellite Instrument tagmeme - see <i>Addendum</i> , page xli	121
3.2.4.1. The alternate division-subclass Instrument Relator Axis Phrase 1	121
3.2.4.2. The alternate division-subclass Instrument Relator Axis Phrase 2	122
3.2.5. The optional satellite Time tagmeme	122
3.2.5.1. The alternate distribution-subclass Time Adverb Phrase	122

	<i>Page</i>
3.2.5.1.1. The co-occurrence-subclass Time Adverb Phrase 1	122
3.2.5.1.2. The co-occurrence-subclass Time Adverb Phrase 2	123
3.2.5.1.3. The co-occurrence-subclass Time Adverb Phrase 3	123
3.2.5.2. The alternate distribution-subclass Time Locution	123
3.2.5.3. The alternate distribution-subclass Extra Dependent Time Clause	123
3.2.6. The optional satellite Frequency tagmeme	124
3.2.6.1. The alternate distribution-subclass Frequency Adverb Phrase	124
3.2.6.2. The alternate distribution-subclass Frequency Noun Phrase	125
3.2.6.3. The alternate distribution-subclass Frequency Locution	125
3.2.7. The optional satellite Location-Direction tagmeme	126
3.2.7.1. The alternate distribution-subclass Location Adverb Phrase	126
3.2.7.2. The alternate distribution-subclass Location Relator Axis Phrase	126
3.2.7.3. The alternate distribution-subclass Extra Dependent Location Clause.	126
3.2.8. The optional satellite Manner tagmeme	127
3.2.8.1. The alternate distribution-subclass Manner Adverb Phrase	127
3.2.8.2. The alternate distribution-subclass Manner Relator Axis Phrase	128
3.2.9. The optional satellite Purpose tagmeme	128
3.2.9.1. The alternate distribution-subclass Purpose Relator Axis Phrase 1	128
3.2.9.2. The alternate distribution-subclass Purpose Relator Axis Phrase 2	129
3.2.9.3. The alternate distribution-subclass Extra Dependent Purpose Clause	129
3.2.10. The optional satellite Cause tagmeme	130
3.2.10.1. The alternate distribution-subclass Cause Relator Axis Phrase	130
3.2.10.2. The alternate distribution-subclass Extra Dependent Cause Clause	130
3.2a. Emphasized Place of an optional satellite Clause level tagmeme	130
3.2b. The optional satellite Clause level tagmeme ordering	131
Chapter 4: LINKING TAGMEMES AND CROSS-LEVEL CONSTRUCTIONS	133
4.0. Introductory	133
4.1. The Coordinator tagmeme	133
4.1.1. The alternate division-subclass Single Coordinator	133

	<i>Page</i>
4.1.2. The alternate division-subclass Double Coordinator	134
4.2. The Comparative tagmeme	134
4.2.1. The alternate division-subclass Equality Comparative tagmeme	134
4.2.2. The alternate division-subclass Superiority Comparative tagmeme	135
4.2.3. The alternate division-subclass Inferiority Comparative tagmeme	135
4.3. The Resultative tagmeme	136
4.3.1. The alternate division-subclass Resultative 1 tagmeme	136
4.3.2. The alternate division-subclass Resultative 2 tagmeme	137
4.3.3. The alternate division-subclass Resultative 3 tagmeme	137
Chapter 5: ENGLISH SENTENCE TYPES AND SENTENCE LEVEL STRUCTURES	139
5.0. Introductory	139
5.0.1. Classification	139
5.1. Major Independent Sentence Types	140
5.1.1. Simple Major Independent Sentence Types	140
5.1.1.1. Simple Major Independent Sentence Type 1: Simple Major Independent Declarative Sentence Type	140
5.1.1.2. Simple Major Independent Sentence Type 2: Simple Major Independent Interrogative Sentence Type	141
5.1.1.2.1. Simple Major Independent Sentence Type 2.1.: Simple Major Independent Yes-No Interrogative Sentence Type	141
5.1.1.2.2. Simple Major Independent Sentence Type 2.2.: Simple Major Independent Information Interrogative Sentence Type	141
5.1.1.3. Simple Major Independent Sentence Type 3: Simple Major Independent Imperative Sentence Type	144
5.1.2. Compound Major Independent Sentence Types	144
5.1.3. Complex Major Independent Sentence Types	145
5.1.4. The Compound Major Independent Echo Interrogative Sentence Type	146
5.1.5. The Complex Major Independent Suppositional Sentence Type	147
5.2. Major Dependent Sentence Types	148
5.2.1. Major Dependent Sequence Sentence Types	148
5.2.2. Major Dependent Parentheses Sentence Types	148
5.2.3. Major Dependent Short Response Sentence Types	149
Appendix: OUTLINE OF GRAMMATICAL STRUCTURES IN ENGLISH	151
1.1. Simple Major Independent Declarative Sentence Type	152
1.2. Simple Major Independent Declarative Sentence Type	153

	<i>Page</i>
1. 3. Simple Major Independent Declarative Sentence Type	154
1. 4. Simple Major Independent Declarative Sentence Type	155
1. 5. Simple Major Independent Declarative Sentence Type	156
1. 6. Simple Major Independent Declarative Sentence Type	157
1. 7. Simple Major Independent Declarative Sentence Type	158
1. 8. Simple Major Independent Declarative Sentence Type	159
1. 9. Simple Major Independent Declarative Sentence Type	160
1. 10. Simple Major Independent Declarative Sentence Type	161
2. Simple Major Independent Yes-No Interrogative Sentence Type	162
3. 1. Simple Major Independent Information Interrogative Sentence Type	163
3. 2. Simple Major Independent Information Interrogative Sentence Type	164
3. 3. Simple Major Independent Information Interrogative Sentence Type	165
4. Simple Major Independent Imperative Sentence Type	166
5. Compound Major Independent Declarative Sentence Type	167
6. 1. Complex Major Independent Declarative Sentence Type	168
6. 2. Complex Major Independent Declarative Sentence Type	169
6. 3. Complex Major Independent Declarative Sentence Type	170
7. Compound Major Independent Echo Interrogative Sentence Type	171
REFERENCES	173
SUMMARY TABLES -	
Summary Table I: Independent Declarative Clause Class I	2
Summary Table II: Classification of the ten Clause Classes into more global Classes	22
Summary Table III: Independent Declarative, Yes-No Interrogative, and Imperative Clause Classes 1, 2, 3	26
Examples reflecting Summary Table III	27
Summary Table IV: Independent Interrogative Subject Clause Class 4	29
Summary Table V: Independent Interrogative Non-Subject Clause Class 5	31
Summary Table VI: Independent Extra Interrogative Clause Class 6	35
Summary Table VII: Dependent Subject Clause Class 7	37
Summary Table VIII: Dependent Non-Subject Clause Class 8	38
Summary Table IX: Dependent Relative Clause Class 9	41
Summary Table X: Extra Dependent Clause Class 10	43
Summary Table XI: The six Independent Clause Classes and their Transforms	45

	<i>Page</i>
Summary Table XII: The four Dependent Clause Classes and their Transforms from the kernel In- dependent Declarative Clause Class	46
Summary Table XIII: The 87 English Complete Clause Types	47
Summary Table XIV: The Verbal Hyperclass	49
Summary Table XV: The optional satellite Clause level tagmeme ordering	132
Summary Table XVI: Major Independent Sentence Types	142
Examples reflecting Summary Table XVI	143
 ADDENDUM	 xli

Addendum

Page 121 -

Insert, between 3.2.3. and 3.2.4.1.:

3.2.4. $\pm I \left\{ \begin{array}{l} \text{IRelAx-Phr}_1 \\ \text{IRelAx-Phr}_2 \end{array} \right\}$, **the optional satellite Instrument**
tagmeme

FILLERS: the optional satellite Instrument slot is filled by a composite filler class including two alternate division-subclasses: Instrument Relator Axis Phrase 1; Instrument Relator Axis Phrase 2.

Special Signs and Abbreviations

The following different signs are used in this paper:

The plus sign, +, indicates the obligatory nature of the tagmeme.

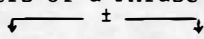
The plus or minus sign, ±, indicates that the tagmeme is optional.

A tagmeme is indicated in the formula by: +Slot[Filler].

Alternate forms of composite fillers which represent different distribution-subclasses are enclosed in angular braces, < >, thus: +Slot< $\begin{smallmatrix} \text{Filler} \\ \text{Filler} \end{smallmatrix} \rangle$. If the attention is being focussed on only one of the distribution-subclass fillers of a Slot, an abbreviated formula such as +Slot<Filler> is used.

Braces { } enclose a composite morpheme-hypermorpheme class of subclass fillers divided on the basis of internal composition, but united as one filler on the basis of the structural unity of its members and their function as members of a unit distribution-subclass.

Parentheses () are used to mark the internal structure of a Phrase; thus: +Phrase(+Filler +Filler).

The arrow  indicates that one of the fillers of a Phrase has been removed to another position. The arrow  indicates that the two fillers are optional, but if one occurs, the other one must occur as well. The arrow  indicates that either of the two fillers occurs but not both in the same time.

The following abbreviations are used:

A - Accompaniment; Act - Active; Adj - Adjective; Adv - Adverb; Aff - Affirmative; Ag - Agent; Ap - Appositive; Art - Article; Aux - Auxiliary; Ax - Axis; B - Benefactor; C - Cause; c - count; Cl - Clause; Co - Complement; Com - Common; Comp - Comparative; Compd - Compound; Compx - Complex; Coord - Coordinate; D - Direct; Db - Double; Decl - Declarative; Def - Definite; Defe - Defective; Del - Delimiter; Dem - Demonstrative; Dep - Dependent; Det - Determiner; Eq - Equational; Equal - Equality; F - Frequency; Fall - Falling; H - Head; I - Instrument; I - Indirect; Imp - Imperative; In - Intonation; Indef - Indefinite; Indet - Indeterminate; Inf - Infinitive; Infer - Inferior; Infor - Information; Intens - Intensifier; Inter - Interrogative; Introd - Introducer; L - Location; M - Manner; m - mass;

Maj - Major; **Mo** - Modal; **Mod** - Modifier; **N** - Noun; **Neg** - Negative; **Nu** - Numeral; **O** - Object; **Ord** - Ordinal; **P** - Purpose; **Part** - Participle; **Pas** - Passive; **Pcle** - Particle; **Pers** - Personal; **Phr** - Phrase; **Pl** or **pl** - Plural; **Pn** - Pronoun; **Pos** - Possessive; **PostMod** - Post-Modifier; **Pr** - Predicate; **Prec** - Preciser; **PreDet** - Pre-Determiner; **Prep** - Preposition; **Prop** - Proper; **Quant** - Quantitative; **Refl** - Reflexive; **Rel** - Relative, Relator; **Resp** - Response; **Result** - Resultative; **S** - Subject; **Sg** - Single; **Sim** - Simple; **sing** - singular; **St** - Stative; **Subjunct** - Subjunctive; **Subst** - Substitute; **Sup** - Superlative; **Supp** - Suppositional; **T** - Time; **t** - tense; **T** - Transform; **Tr** - Transitive; **V** - Verb; **X** - Extra.

PACIFIC LINGUISTICS

Editor: S.A. Wurm
Associate Editors: D.C. Laycock, C.L. Voorhoeve

SERIES C - BOOKS

No. 3

ENGLISH GRAMMAR

A Combined Tagmemic and Transformational Approach

by

Nguyễn Đăng Liêm

A CONTRASTIVE ANALYSIS OF ENGLISH
AND VIETNAMESE

Vol. 1

CANBERRA 1966

THE AUSTRALIAN NATIONAL UNIVERSITY

Second Printing 1970

PACIFIC LINGUISTICS is published by the Linguistic Circle of Canberra and consists of four series:

SERIES A - OCCASIONAL PAPERS

SERIES B - MONOGRAPHS

SERIES C - BOOKS

SERIES D - SPECIAL PUBLICATIONS.

All correspondence concerning PACIFIC LINGUISTICS, including orders and subscriptions, should be addressed to:

The Secretary,
"Pacific Linguistics",
Department of Linguistics,
School of Pacific Studies,
The Australian National University,
Box 4, P.O.,
Canberra, A.C.T. 2600.
Australia.

The copyright in the material of this publication is vested in the author.

The editors are indebted to the Australian National University for help in the production of this series.

This publication was made possible by a grant from the Hunter Douglas Fund.

The first printing of this number appeared as Linguistic Circle of Canberra Publications Series C, Books, No.3.

子路曰：「衛君待子而為政，子將奚先？」
 子曰：「必也正名乎！」
 子曰：「野哉！由也。」
 子曰：「君子於其所不知，
 蓋闕如也。」
 子曰：「名不正則言不順，言不順則事不成，事不成則禮樂不興，禮樂不興則刑罰中，刑罰中則民無所措手足。」

Confucius was asked by Tsze-lû what he would consider the first thing to be done if he were to administer the government of a nation. He replied:

"What is necessary is to rectify names... If names be not correct, language is not in accordance with the truth of things. If language be not in accordance with the truth of things, affairs cannot be carried on to success. When affairs cannot be carried on to success, properties and music do not flourish, punishments will not be properly awarded. When punishments are not properly awarded, the people do not know how to move hand or foot.

Therefore a superior man considers it necessary that the names he uses may be spoken *appropriately*, and also that what he speaks may be carried out *appropriately*. What the superior man requires, is just that in his words there may be nothing incorrect."

PREFACE

This is the first volume of a contrastive analysis of English and Vietnamese in the light of a combined tagmemic and transformational approach.

The next two volumes are planned to consist of a Vietnamese grammar, and a contrastive study of English and Vietnamese as the basis for a linguistically oriented technique of teaching English grammar and patterned practice to speakers of Vietnamese, and vice versa.

The subsequent volumes will constitute a study of the phonologies of the two languages and an analysis of them as the theoretical background for the teaching of English pronunciation to Vietnamese, and of Vietnamese pronunciation to English speakers.

All these volumes are in advanced stages of preparation and will appear in the foreseeable future.

S.A. Wurm
Editor

ACKNOWLEDGEMENTS

This contrastive analysis of English and Vietnamese phonology and grammar was carried out under the auspices of The Australian National University, and with a scholarship grant of the Colombo Plan of Australia, I express my thanks to these two Institutions.

I would like to acknowledge my deep obligation to the University of Saigon, and the Department of National Education of Vietnam, for granting me study leave.

To Dr Stephen A. Wurm, my supervisor, I express my gratitude for his teaching, encouragement, advice, and tireless persistence in reading drafts of this study. Special thanks are also due to Dr Donald Laycock, and Dr Herman Bluhme for many valuable suggestions which have been incorporated into the final version.

It was through my former teachers, particularly Professors Albert H. Marckwardt, Robert Lado, Harold V. King, James W. Downer, William J. Gedney, Bryce Van Syoc, Warren G. Yates, and Mr William T. Weir that I was first interested in linguistics and inspired to the study of teaching English as a foreign language. To all of them, I wish to express my appreciation for their teaching and advice during my graduate studies at the University of Michigan, or during my work with the South East Asian Regional English Project of the University.

It is a pleasure to acknowledge my indebtedness to numerous students, friends, and colleagues at the University of Saigon, the National Institute of Administration, the Vietnamese American Association and elsewhere. In particular, I extend my thanks to Professors Lê Văn Thới, Phạm Biểu Tâm, and Trần Quang Đế, Dr Hoàng Gia Linh, Dr Richard S. Pittman, and Dr Arthur Capell for their encouragement during the writing of this manuscript, and to Mrs Sally Sinisoff for her editorial comment and difficult job of typing the English Grammar volume.

To my parents, whose expectation, moral sacrifice, and prayers gave me the encouragement to keep writing this study, I express my reverence.

Canberra,
April 1966.

N. D. L.

GENERAL INTRODUCTION

1. The Vietnamese Language

Vietnamese, spoken by 24,000,000 people¹ in the Indo-Chinese peninsula, is an Austro-Asiatic language.² In the Republic of Vietnam, there are also Chinese spoken by 126,000 people, and Mon-Khmer languages spoken by 300,000 people.³ But Vietnamese is the standard official language to which national sentiment is strongly attached, and which makes use of a Roman alphabet created by Alexander of Rhodes in the seventeenth century. It has a sizable literature with a history of several centuries including poetry and religious works written in Chinese characters (Chữ Hán 字漢), Demotic characters (Chữ Nôm 字南) which are thought to be created in the fourteenth century by Hàn Thuyên, or National (Roman) Alphabet (Chữ Quốc Ngữ 字國語).⁴

Vietnamese is embedded in a national culture which, although deeply influenced by the Chinese Culture, is different from it.

Being now the medium of instruction in elementary, secondary, and higher educational institutions, Vietnamese is always increasing in new technical terms and morphological devices to cope with modern science and technology.⁵

¹ Janet Roberts, "Sociocultural change and communication problems", in Frank A. Rice (ed.), *Study of the Role of Second Languages in Asia, Africa, and Latin America*. Center for Applied Linguistics of the Modern Language Association of America, Washington D.C., 1962, pp.105-123.

² André G. Haudricourt, "La place du Vietnamien dans les langues austro-asiatiques." *Bulletin de la Société de Linguistique de Paris*, 49 (1953), I.122-128.

³ For further detail on minority group languages in Vietnam, see David D. Thomas, "Vietnam Minority Languages". May 1964, Summer Institute of Linguistics in Vietnam, unpublished.

⁴ Nguyễn Đình Hòa, "Chữ Nôm: the demotic system of writing in Vietnamese orthography", *Journal of the American Oriental Society*, 79.4 (Oct.-Dec. 1959), pp.270-274.

⁵ The Faculty of Science of the University of Saigon has been preparing a dictionary of technical and scientific terms in Vietnamese.

2. French and English in Vietnam

Vietnamese high-school students are required to learn two foreign languages, the first one for seven years, and the second one for three years. The increase in the number of students learning French or English as first foreign language is as follows:⁶

<i>Academic Years</i>	<i>Public High-Schools</i>		<i>Private High-Schools</i>	
	<i>French</i>	<i>English</i>	<i>French</i>	<i>English</i>
1958-1959	34,774	18,412		
1959-1960	35,516	27,058		
1960-1961	42,009	32,414		
1961-1962	50,324	36,556	74,851	43,406
1962-1963	57,996	40,753	91,943	66,567
1963-1964	65,853	46,753	100,562	75,218

French, which used to be an official language in the country, still has a higher total number of students enrolled. Meanwhile, English, because of its increasing role in international communication, has a higher ratio of increase of enrolments. The ratio of increase of enrolments has been over 90% for French and over 154% for English in public high-schools in the past six years.

This process proves Alf Sommerfelt's statement to be correct:

"Until our time, French had the lead... In our time, however, the overwhelming influence comes from English because of the leading part the British Commonwealth and the United States play in the modern world... In the view of the development which is going on under our eyes, English ought to be adopted as the main language."⁷

3. Foreign Language Learning and National Development⁸

Because of the "role of language as a cultural institution",⁹ the

⁶ *Annuaire Statistique de l'Enseignement, 1962-1964*, published by the Ministry of National Education of the Republic of Vietnam, p.83.

⁷ Alf Sommerfelt, "An Auxiliary Language" in his *Diachronic and Synchronic Aspects of Language*. Mouton and Co., The Hague, 1962, pp.69-70.

⁸ For further information, see *Second Language Learning as a factor in national development and Recommendations of an International Meeting of Specialists held in London, December 1960*. Center for Applied Linguistics of the Modern Language Association of America, Washington D.C., 1961.

⁹ John B. Carroll, *The Study of Language*. Harvard University Press, Cambridge, 1959, p.169.

value of foreign language learning in the general education of a people is undeniable.

Besides this vital interest to Vietnam to keep abreast of modern international culture, the use of one or more languages of wider communication by a larger segment of its population is an important factor in the economic, social, and educational development of the nation. There are at least two communication needs to be recognized here: transmission of science and technology, and international communication.

Science and Technology: There are urgent needs for the country to have access to the scientific, technical, and economic knowledge of the modern world.

International Communication: Vietnam wishes to enter the international scene and establish effective channels of communication with other nations.

4. Foreign Language Programmes and Linguistics

Leonard Bloomfield discussed in 1933 the ways in which the findings of linguistics could be applied in his book *Language*, Chapter 28, "Applications and Outlook", pp. 496-510.¹⁰

Since then, throughout the Intensive Language Program of the American Council of Learned Societies during World War II, the Army Language Section, the Army Specialized Training Program: Language and Area Section, the Foreign Language and Area Programs of the Provost Marshal General's Office of the Department of the Army, and the recent developments in language teaching manifested by the Cornell Language Program, the Foreign Service Institute of the State Department, the Institute of Languages and Linguistics of Georgetown University, the English Language Institute of the University of Michigan,¹¹ etc., a new concept of applying modern linguistics to the teaching of foreign

¹⁰ Leonard Bloomfield, *Language*. Henry Holt and Co., New York, 1933.

¹¹ For further detail on the history of applied linguistics during the period under discussion, see, for examples:

John B. Carroll, *The Study of Language*. Harvard University Press, Cambridge, 1959, Chapter 6, part on Second Language Teaching, pp. 168-190;

William G. Moulton, "Linguistics and Language Teaching in the United States", in C. Mohrmann, A. Sommerfelt, and J. Whatmough (editors), *Trends in European and American Linguistics 1930-1960*. Spectrum Publishers, Utrecht, 1962, pp. 82-109;

Carleton T. Hodge, "The Influence of Linguistics on Language Teaching". *Anthropological Linguistics* 5.50-58 (1963).

languages has been developed in the United States. This concept of applied linguistics has been systematized mainly by Charles C. Fries,¹² and Robert Lado.¹³

The central idea of this concept is the "importance of the native language in foreign language learning".¹⁴ Each language has its own sound system and grammatical structure. The foreign language learner has already learned a native language extensively enough to grasp and express a variety of experience and he can never again be in the same position as a child learning his own language. He tends to transfer the phonological and grammatical systems of his native language to the foreign language to be learned. This transfer creates a phenomenon of interference,¹⁵ or deviation from the norms of either language which occurs in his speech while he is switching from one language code to another.

This concept of applied linguistics has been carried out in Vietnam in the last few years by the South-East Asian Regional English Project (SEAREP), a University of Michigan-United States Operations Missions Contract, in the training of English teachers at the Faculty of Pedagogy, University of Saigon. The final written results were a set of three text books for intensive courses in English,¹⁶ all of them rewritten by the present author. In broad lines, the writing of these books was deeply influenced by the Lado-Fries series of English text books for Latin American students,¹⁷ and based upon an intuitive but

¹² Charles C. Fries, *Teaching and Learning English as a Foreign Language*. Ann Arbor, Michigan, 1945.

¹³ Robert Lado, *Linguistics across Cultures*. Ann Arbor, Michigan, 1957.

¹⁴ David W. Reed, Robert Lado, Yao Shen, "The Importance of the Native Language in Foreign Language Learning", in *Selected Articles from Language Learning*, Series I, Ann Arbor, Michigan, 1953, pp.121-127.

¹⁵ Uriel Weinreich, *Language in Contact*, New York, 1953, p.3.

¹⁶ Nguyễn Đăng Liêm, *English Pronunciation for Vietnamese*, SEAREP-USOM, Saigon, 1962;
 Nguyễn Đăng Liêm and Staff, *English Grammar for Vietnamese*. SEAREP-USOM, Saigon, 1963;
 Nguyễn Đăng Liêm, *English Pattern Practice for Vietnamese*, Part One, and Part Two. SEAREP-USOM, Saigon, 1963.

¹⁷ Nguyễn Đăng Liêm, "English Grammar for Vietnamese, Teaching and Learning Problems", in Van Hóa Nguyệt San, or *Culture*, monthly Review, published by the Directorate of Cultural Affairs, Ministry of National Education, Saigon, No.88 (Dec. 1963), pp.2033-2040.

not stated linguistically oriented comparison of English and Vietnamese.¹⁸

5. The Present Study

Representative of the recognition of the development of a methodology for the application of the findings of linguistics to the teaching of foreign languages are the facts that the United States Office of Education, under the National Defence Education Act of September 2, 1958, specified the analysis for language teaching in Foreign Language Institutes, and contracted with linguists for an Anthology of Applied Linguistics for the use in the Institutes, and with the Center of Applied Linguistics of the Modern Language Association of America for the development of linguistic contrastive analyses. So far, a series of contrastive studies describing the similarities and differences between English and each of the five languages most commonly taught in the United States (French, German, Italian, Russian and Spanish) have been published or are being prepared.¹⁹

Because of its methodological importance to the teaching of English to Vietnamese speakers, and of Vietnamese to English speakers, the present contrastive analysis of English and Vietnamese grammar and phonology has proved to be necessary.

As it has been said a short while ago, one of the major problems in the learning of a second language is the interference caused by the structural differences between the language to be learned and the language of the learner. Consequently, a contrastive analysis of the two languages will point out learning and teaching problems, and will constitute the basis for the preparation of scientifically oriented instructional materials, the planning of courses according to the relative degrees of difficulties of learning problems, and the development of classroom techniques.

In terms of linguistic theoretical implications, this contrastive analysis is a tentative combination of two leading, if not *the* two

¹⁸ Robert Lado-Charles C. Fries, *English Pronunciation*. Ann Arbor, Michigan, 1954;
 Robert Lado-Charles C. Fries, *English Sentence Patterns*. Ann Arbor, Michigan, 1957;
 Robert Lado-Charles C. Fries, *English Pattern Practices*, Ann Arbor, Michigan, 1958, revised edition;
 Robert Lado-Charles C. Fries, *Lessons in Vocabulary*. Ann Arbor, Michigan, 1956.

¹⁹ Charles A. Ferguson, "General Introduction to the Series", in William G. Moulton, *The Sounds of English and German*. University of Chicago Press, Chicago and London, 1962, pp.v-vi.

leading linguistic theories of the last decade, Tagmemics and Transformational Grammar; it is also an application of the tagmemic model to the preparation of substitution, and development drills, and of the transformational model to the preparation of transformational drills in grammar and pattern practice lessons.

Nevertheless, at the same time, this study, concerned only with the grammatical structures and the sound systems of the two languages, cannot be considered complete for the preparation of text books of either language for native speakers of the other language, seeing that:

"The fundamental purpose or objective of all foreign language teaching is to achieve an understanding as complete as possible between people of different linguistic backgrounds."²⁰

Thus, the present study must be followed by a careful contrastive analysis of the culture or cultures of the English speaking people, and the Vietnamese culture to point out cultural differences, i.e. cultural teaching and learning problems, as Albert H. Marckwardt says:

"Just so, it may be reasonably maintained that contrastive cultural analyses are equally important in terms of language study."²¹

The fact that language is closely related to culture has been pointed out by many a linguist, among them Edward Sapir,²² Benjamin Lee Whorf,²³ and Kenneth L. Pike, who says:

"In sum, then, we may say that the linguist wishes to dis-

²⁰ *The Teaching of Modern Languages, Report on the UNESCO Regional Seminar held in Sydney, January-February 1957.* Australian National Advisory Committee for Unesco, p.15.

²¹ Albert H. Marckwardt, "The Cultural Preparation of the Teacher of English as a Foreign Language" in *Selected Articles from Language Learning No.2.* Ann Arbor, Michigan, 1963, pp.1-4.

²² Edward Sapir, in D.G. Mandelbaum (ed.), *Selected Writings of Edward Sapir*, in *Language, Culture, and Personality.* University of California Press, Berkeley and Los Angeles, 1949, says:

"We see and hear otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation." - p.162.

²³ Benjamin Lee Whorf, in *Collected Papers on Metalinguistics*, Washington D.C., 1952, defines language as:

"...the thought world... the microcosm that each man carries about within himself by which he measures and understands what he can of the macrocosm." - p.36.

cover the structure of language behavior, and obtains its structuring only in reference to that larger behavior field, and relative to the structural units of that larger field, the linguist must on occasion refer to that larger field in order to get access to that frame of reference within which the linguistic units obtain part of their definition."²⁴

Since the meanings expressed in a language are largely behaviourally (or culturally) determined, one cannot understand a language fully without understanding at least the distinct cultural meanings expressed through it. Thus, the foreign language student cannot go far into the language to be learned without facing differences in cultural meanings. He needs to have a substantial knowledge of specific facts concerning the culture, some understanding of the main patterns of thought, beliefs, traditions, appreciation of the values that account for the way the people live and behave, and be able to recognize the significance of the accomplishments of the people.

In learning a foreign culture, the student tends also to transfer the patterns of his native culture to the culture to be learned, both on the production level and on the reception level, as Robert Lado says:

"The student learns the target culture not from scratch as he learned his native one, but with the experience, meanings, and habits of his native culture influencing him at every step. The native-culture experience will facilitate learning those patterns that are sufficiently similar to the function satisfactorily when transferred. The native-culture experiences will interfere with those cultural patterns and meanings that are not equatable with similar ones or that are partly similar but function differently in the target culture."²⁵

In conclusion, a contrastive cultural study is also of greatest importance to the programming of an English or Vietnamese language course for native speakers of the other language.

6. The Choice of Dialects

The purpose of this study is to make a contrastive analysis of English and Vietnamese for pedagogical applications, and not to make a linguistic geography survey of a country. Therefore it is necessary to choose a particular dialect of English, and a particular dialect of Vietnamese, as Zellig S. Harris says:

²⁴ Kenneth L. Pike, *Language*, Part I. Glendale, 1954, p. 27a.

²⁵ Robert Lado, *Language Teaching*. McGraw-Hill, New York, 1964, p. 30.

"The universe of discourse for a descriptive linguistic investigation is a single language or dialect.

These investigations are carried out for the speech of a particular person, or one community of dialectically identical persons, at a time."²⁶

Both in English and Vietnamese, there are not many serious grammatical differences among different standard dialects, but there are a few phonological differences. Thus the choice of dialects matters only in the phonological analyses.

The two dialects chosen for contrastive analysis are: Midwest Standard American English, and Standard Saigon Vietnamese.

6.1. Midwest Standard American English (MSAE)

The problem of choosing which linguistic form should be learned or taught for active production of English when many forms are employed in approximately equivalent manners by different native speakers of the language must be considered in the preparation of text books where, for convenience, materials are centered about a single dialect.

While it is pertinent for advanced students to be exposed to British English, Australian English, New Zealand English, etc., MSAE is chosen for this study, and assumed to be the standard that the Vietnamese student observes in his elementary study of the language. The reasons for this choice are:

- (1) Since a student of a second language will try to speak like the informant or informants who are used as models, MSAE is chosen because it is much more easily observable in Vietnam than any other English dialect;
- (2) MSAE, a standard colloquial speech, is mutually intelligible with other dialects;
- (3) MSAE, like other standard dialects of English, has social, cultural, and literary prestige;
- (4) MSAE has reliable sources of linguistic information, such as descriptive grammars, dictionaries, etc.

6.2. Standard Saigon Vietnamese (SSV)

Since Vietnamese native speakers of the three main dialects of Vietnamese (Hanoi, Hue, Saigon dialects),²⁷ are present in any English classroom in Vietnam, it is obviously unrealistic, for the purpose of

²⁶ Zellig S. Harris, *Structural Linguistics*. The University of Chicago Press, Chicago, 1951, p.9.

²⁷ For an introduction to Vietnamese pronunciation, the Vietnamese writing system and dialect variations, see Lawrence C. Thompson, *A Vietnamese Grammar*. University of Washington Press, Seattle, 1965, pp.3-104.

teaching English in the country, to choose just one dialect of Vietnamese for contrastive analysis while neglecting the other two. The three dialects differ from one another in their phonological systems, mainly in their intonation patterns, but they are perfectly mutually intelligible. An arbitrary choice of SSV, which has the greatest number of speakers in the Republic of Vietnam, has been made here. Nevertheless, as far as teaching and learning problems of English pronunciation are concerned, only the English phonemes which have their equivalents in the Vietnamese phonological common core²⁸ of the three main dialects are considered easy for Vietnamese students. Problems for speakers of any particular Vietnamese dialect are considered as problems for Vietnamese speakers in general, although in practical situations, the sounds considered as difficult may not be problems for speakers of any one particular dialect because in every day contact, speakers of a particular dialect have picked up phonemes of another dialect.

All the arguments given so far have centered about the purpose of teaching English to Vietnamese speakers. Reasons should also be given for this choice of dialects for the purpose of teaching Vietnamese to English speakers.

Considered now as the dialect to be learned by English speakers, SSV, which is a standard dialect like the other two main dialects, was chosen even more arbitrarily than MSAE was chosen as the dialect for Vietnamese students to learn. This arbitrary choice has nevertheless some practical reasons: being the native dialect of the author, SSV can be described by him with greater accuracy.

Likewise, this contrastive analysis is intended to discover teaching and learning problems for English speakers. Thus, it is obviously unrealistic to choose just one dialect of English for comparison. In order to compensate for this arbitrary choice, Vietnamese pronunciation difficulties for speakers of other English dialects (especially British and Australian dialects) will be also presented in the Part on Vietnamese pronunciation for English.

7. Kenneth L. Pike's Philosophy of Language Adopted²⁹

The philosophy of language and model for language structure presented in Kenneth L. Pike's *Language in Relation to a Unified Theory of the Structure of Human Behavior*, Parts I, II, and III (Glendale, 1954, 1955, 1960) are adopted in this study.

²⁸ Charles F. Hockett, *A Course in Modern Linguistics*. The MacMillan Co. New York, 1958, pp. 332ff.

²⁹ Some points in this short discussion have been borrowed from John C. Crawford, *Totontepec Mixe Phonotagmatics*. Summer Institute of Linguistics, Norma, Oklahoma, 1963.

There are four characteristics of Pike's philosophy of language and model for language structure which are basic to this presentation. The brief discussion of these four points made here is not meant to summarize Pike's *Language*. It is only to show the direction that this study will take, and what the major linguistic, and especially extra-linguistic considerations will be which will have to be taken into account for a scientific programming of the teaching of two quite different languages, both in terms of linguistic structural patterns and overall behavioural matrices. The four characteristics, which are closely inter-related, are: (1) Language is viewed as behaviour; (2) Language is hierarchically ordered; (3) Language consists of emic units; (4) Language is tri-modally structured.

7.1. Language is Viewed as Behaviour

Language is not a self-contained system; the behaviour aspects are closely related to linguistic aspects. It is viewed by Pike as being only one part of a larger totality of structured human behaviour. On the one hand, language is inextricably mixed with other aspects of this behavioural totality, and on the other hand, language behaviour constitutes a significant part of this total human behaviour. Consequently, language can only be considered as being in relation to other aspects of the totality of structured human behaviour.

In the light of Pike's statement that language must be viewed as behaviour, some remarks on Vietnamese linguistic behaviour and English linguistic behaviour will be given here. These very brief remarks are only to explain the existence of linguistic difficulties (for speakers of one language to learn the other language) due to the interference of the two different linguistic behaviours.

7.1.1. Vietnamese Linguistic Behaviour

Vietnamese is an uninflectional and, at least phonologically speaking, monosyllabic language. That means that there are only two syntactic and morphological devices in Vietnamese: the use of word order, and the use of function words.³⁰

This limited number of grammatical devices in Vietnamese is closely related to and characteristic of the Vietnamese linguistic behaviour, which would seem to be governed by two behavioural laws: the law of indeterminacy; and the law of simplicity.

Law of Indeterminacy. The Vietnamese language is said to be governed by the law of indeterminacy in the sense that Vietnamese Sentences, both Minor and Major Sentence Types, are not necessarily self-sufficient units, but they can, and usually do, rely on larger linguistic,

³⁰ For the role of function words in English, see Charles C. Fries, *The Structure of English*. Harcourt, Brace and Co., New York, 1952, pp.87ff.

or extra-linguistic matrices which explain or complete their meaning. What is assumed to be known is not repeated in the actual Sentence units. In other words, Vietnamese Sentences are usually contextually Dependent Sentences.

This law of indeterminacy explains also the frequent use of Minor Sentences in a Vietnamese discourse. For example:

A student, coming back from his examinations, looks at his anxious parents and says:

Khó 'difficult' = What I have had as tests were quite difficult.

or: *Được* 'alright' = I have done my examinations well.

or: *Đã quá* 'too bad' = It was too bad. My papers were too bad.

These Minor Sentences comprise or express a number of different notions.

These same Minor Sentences exist also in English, but they must be more numerous in Vietnamese because in Vietnamese, many nucleus Clause level tagmemes are optional while in English the same tagmemes are obligatory, for examples the Subject tagmeme, or the Direct Object tagmeme in full Transitive Clause Types³¹ (see Chapters on English and on Vietnamese Clause Types). For examples:

In English, as an answer to the question "When did you buy this book?", the following Sentence

I bought it yesterday.

In Vietnamese, the following Sentence may be uttered:

Mua hôm qua, literally 'buy day past'.

The Subject tagmeme *I*, and the Object tagmeme *It* are obligatory in English, but optional in Vietnamese.

This law of indeterminacy governs also Major Sentence Types in Vietnamese. As an example of this contextual dependence of Major Sentence Types, the following Sentence can be understood in different ways according to the larger linguistic, or extra-linguistic matrices:

Nó về tôi về +Falling Intonation

He returns I return

The Sentence may mean, according to different contexts:

If he goes home, I'll go home too.

When he goes home, I'll go home too.

Every time he goes home, I go home too.

Because he is going home, I am going home too.

³¹ Lawrence C. Thompson interprets the optional character of the Subject and Direct Object tagmemes in Vietnamese in these terms: "These considerations also suggest that subject and object as presumed universals need careful amendment. It appears that there are syntactic structures (like that of Vietnamese) in which these categories scarcely exist at all; their equivalents appear rather as elements of a modification-and-reference subsystem." - p.618, "Nuclear Models in Vietnamese immediate-constituent analysis", *Language* 41.4: 610-618 (1965).

Because he went home, I went home too.

Since he might be going home, I am going home now, etc.

Law of Simplicity. The Vietnamese language is said to be governed by the law of simplicity in the sense it tends to use simple constructions, and compound constructions, rather than to use complex constructions. On the Sentence level for example, Vietnamese Sentences do not usually have Extra Dependent Introducers such as *bởi vì* 'because', *khi* 'when', and consequently, they do not have a complex internal structure of Clause within Clause. They are more usually Compound Sentences containing successive Clauses which can be coordinated or not. In these Compound Sentences, the different Cause-Effect, Supposition-Consequence, Time-Relativity, etc. relationships will be expressed loosely by Independent Clause Coordinators.

Thus, the Vietnamese Language is said to be governed by the law of simplicity because, instead of using pyramiding structures of constructions within constructions, it tends to use lengthy but simple coordinate successive constructions.

As an example of this law of simplicity, the two facts are stated in their chronological order rather than logical order (i.e. Time-Situation dependence versus government) relationships in the following Major Independent Compound Sentence:

<i>Nó về nhà</i>	<i>thì (nó) gặp một người khách</i>
he return house	then he meet one person visitor
(When he returned home,	he met a visitor.)

The two facts of 'going home' and 'meeting a visitor' are stated in their chronological order rather than in the circumstantial Time situation of the first fact, and the government by the second fact.

This law of simplicity does not mean that there are no Complex Sentence Types with their internal structures composed of pyramiding structures of Clauses within Clauses. It just means that Complex structures are used only when there is a strong pressure for precision (cf. Chapter V of Vietnamese Grammar).

7.1.2. English Linguistic Behaviour

English is an inflectional and polysyllabic language. That means that there are more than two syntactic and morphological devices in English. the use of word order, function words, and inflections.

This relative abundance of grammatical devices in English reflects the English linguistic behaviour, which can be characterized by the law of precision.

English is said to be governed by the law of precision in the sense that even what is assumed to be known is usually repeated in actual Sentence units. Following are some illustrations of this law of precision: In Clause matrices, the repetition of nucleus Subject, and Object tagmemes is obligatory when these Clauses constitute separate

Sentences. Secondary notions of Tense, Concordance, Aspects, etc., are most of the time expressed in Sentences. Clause level relations of Cause-Effect, Supposition-Consequence, etc., are expressed with Complex Sentence structures of Clauses within Clauses.

7.2. Language is Hierarchically Ordered

Language, according to Pike's theory, consists of units of significant layerings and not merely of sequences of units put together like beads on a string. The higher units are partly, but not entirely, determined in terms of lower layered units of which they are composed. The lower units, moreover, occur only in structurally relevant positions within higher layered units in the hierarchy.

There are three different hierarchies in language, the phonological, the lexical, and the tagmemic hierarchies.³²

- (1) The phonological hierarchy builds up through a pyramiding succession of units, phonemes to syllables, syllables to stress groups, stress groups to pause groups, pause groups to emic breath groups, etc.

In the phonology discussion of this study, many phonological levels will not be dealt with because they are not very relevant to a contrastive analysis.

- (2) The lexical hierarchy consists of pyramiding succession of units, morphemes to words, words to phrases, phrases to clauses, clauses to sentences, etc.
- (3) The hierarchy of tagmemic units consists of a pyramiding succession of units labelled as "slot-class correlate" (Pike, *Language*, Chapter 7). These consist of an emic slot, which is a meaningful position in the next higher layer of structure, with a class of items which form the filler class of that slot. The units which constitute the membership of the filler class are morphemic units. The occurrence of these units constitutes the occurrence of the tagmemic unit. The filler classes of morphemic level tagmemes are usually morphemes; the filler classes of word level tagmemes are usually words.

Other higher level tagmemes are phrase level tagmemes, clause level tagmemes, sentence level tagmemes, etc.³³

³² John C. Crawford, in his *Totontepec Mixe Phonotagmemics*, op.cit., sets up four hierarchies instead of three: the phonemic, the phonotagmemic, the lexical, and the tagmemic hierarchy.

³³ Pike, in his "On tagmemes Née Gram(m)emes," I.J.A.L. 24. 273-279 (1958), defines the tagmeme as: "A tagmeme in my view has one of its basic characteristics a correlation between a functional slot and a morpheme (or morpheme sequence, etc.) distribution class".

(continued on page xx)

The present study deals with a contrastive analysis of only two hierarchical aspects of English and Vietnamese, namely phonology and grammar. It leaves out on purpose the third hierarchical aspect of language, lexicon, because there is nothing in common between English lexicon and Vietnamese lexicon to justify the necessity of a contrastive analysis. Nevertheless the present study must be accompanied by a highly sophisticated dictionary of English for the programming of an English course for Vietnamese, and likewise, a highly sophisticated dictionary of Vietnamese for the programming of a Vietnamese course for English. For, as Robert E. Longacre says:

"To describe a language exhaustively (a task as yet seriously attempted by no-one), three volumes are needed: a phonological statement, a grammatical statement, and a highly sophisticated dictionary."³⁴

7.3. Language Consists of Emic Units

Language units are not considered as physical entities per se, but as relevant parts of a structured system or systems. Such structurally relevant parts are termed "emic" in the sense they are in relation to a total structure of a language. They are meaningful, i.e. they are parts of a functioning culturally significant system.

7.4. Language is Trimodally Structured

Each linguistic unit is described in terms of three modes: the feature, the manifestation, and the distribution mode.

The feature mode is comprised of identificational-contrastive components or features which delimit each unit from other units of the same level or of different levels.

The manifestation mode deals with varying occurrences of a unit.

The distribution mode is concerned with the distribution of the unit in question in significant slots in larger units, and in a less

³³ (continued from previous page)

However, certain differences in the usage of the term tagmeme should be pointed out here. In Pike's theory, the tagmeme is the minimum unit of the grammatical hierarchy; all other higher level units in the grammatical hierarchy will be called "hypertagmemes". In this study, the word tagmeme is used in a larger sense, meaning any grammatical emic unit at any level in the grammatical hierarchy concerned. This concept of tagmemes at various ascending levels was developed by Longacre, in his "String Constituent Analysis", *Language* 36.63-88 (1960), and tested by Velma S. Pickett, *Hierarchical Structure of Isthmus Zapotec* (=Language Dissertation No.56). Baltimore, 1960.

³⁴ Robert E. Longacre, *Grammar Discovery Procedures*. Mouton and Co., The Hague, 1964, p.8.

important degree, in the distribution within the unit itself of smaller units. (John C. Crawford, in *op.cit.*, does not consider the criteria of the distribution within the unit itself of smaller units as relevant to the distribution mode of an emic unit because the same distribution of smaller emic units constitutes the manifestation mode of the unit already.)

So far, the three phonological, tagmemic, and lexical hierarchies, and the three modes (feature mode, manifestation mode, and distribution mode) have been discussed separately. But in Pike's theory, there is a close mode-hierarchy interrelationship. There is no space here for a lengthy discussion of this mode-hierarchy interrelationship which, for example, is reflected in the modal structure of a syntagmeme (construction)³⁵ whose feature mode is constituted in units in the lexical hierarchy, whose manifestation mode in units of the phonological hierarchy, and whose distribution mode in units of the tagmemic hierarchy.

8. Presentation in this Study

As its subtitle conveys, this study is a Tagmemic and Transformational Approach to the Teaching of English Grammatical Structure and Sound System to Vietnamese Speakers, and Vietnamese Grammatical Structure and Sound System to English Speakers. It has two Parts: the Grammar Part, and the Phonology Part.

The Grammar Part includes four sections: English Grammar, Vietnamese Grammar, English Grammatical Structure for Vietnamese, Vietnamese Grammatical Structure for English.

Similarly, the Phonology Part deals also with English Phonology, Vietnamese Phonology, English Sound System for Vietnamese, and Vietnamese Sound System for English. Nevertheless, for a better contrastive presentation, these four descriptive and contrastive aspects of consideration are not separate here, but they are regrouped in the sections on Consonants (the Consonants of English, the Consonants of Vietnamese, English Consonants for Vietnamese, and Vietnamese Consonants for English), Vowels (the Vowels of English, etc.), and Intonation.

Since the discovery procedures for the different Parts, or even for the different Sections are usually at variance with each other, different Introductions to the discovery procedures for each Part, or sometimes even for each Section, will be given when it is necessary to do so.

³⁵ The term Syntagmeme is replaced by the term Hypertagmeme by Robert E. Longacre in his "String Constituent Analysis", *op.cit.*, without any change in the underlying theory.

INTRODUCTION TO THE GRAMMAR DISCOVERY PROCEDURES ADOPTED

Charles F. Hockett, in his "Two Models of Grammatical Description",¹ finds that there is partial translatability between two models of grammatical description that he defines *item and arrangement*, and *item and process*. He concludes his article by looking towards an eventual reintegration of the two models in these words:

"We must have more experimentation, as much with a model as with the other - and with the devising of further models too, for that matter - looking towards an eventual reintegration into a single more nearly satisfactory model, but not forcing that reintegration until we are ready for it."

The first volume of Pike's *Language* came out in the same year as Hockett's article. The following year (1955), Noam Chomsky's thesis *The Logical Structure of Linguistic Theory* came out at M.I.T. Since then, both the item and arrangement model (under the form of tagmemics) and the item and process model (under the form of transformational grammar) have been extensively experimented and developed.

William G. Moulton, in his "What is Structural Drill?",² points out that tagmemics can be served as the theoretical foundation for the writing of grammatical substitution drills in foreign language teaching, and that transformational grammar can be served as the theoretical foundation for the writing of transformational drills. Inspired by Moulton's article, the present author makes an attempt in this study to combine the two models of grammatical description for an analysis of English grammar and Vietnamese grammar, as well as for presenting the teaching and learning problems of English grammar for Vietnamese, and of Vietnamese grammar for English. He is pleased to see, in reading Simon Belasco's article, "Tagmemics and Transformational Grammar in Linguistic Analysis",³ that Belasco demonstrates that "one need not

¹ Charles F. Hockett, "Two Models of Grammatical Description", *Word*, 10.210-231 (1954), reprinted in *Readings in Linguistics*, Martine Joos (ed.), ACLS, New York, 1958, pp.386-399.

² William G. Moulton, "What is Structural Drill?", in *Structural Drill and the Language Laboratory*, Francis W. Gravit and Albert Valdman (ed.). Indiana University, Bloomington; Mouton and Co., The Hague, 1963, pp.3-18.

³ Simon Belasco, "Tagmemics and Transformational Grammar in Linguistic Analysis", *Linguistics* 10.5-14 (1964), Mouton and Co., The Hague.

supersede *the other*", p.14 (meaning either tagmemics or transformational grammar need not supersede the other). Now, if "one need not supersede *the other*", then a combination of the two has a good chance to be at least pedagogically applicable.

1. Tagmemic Procedure and Theory

As it was said earlier, the theory of language on which this study is based has been developed by Kenneth L. Pike in his *Language in Relation to a Unified Theory of the Structure of Human Behavior*. This theory offers an excellent methodology for contrastive analysis because it postulates *patterning* as being central to human behaviour. It is a model to present linguistic patterns in straightforward and summary fashion. Such patterns when systematically described for one language may be contrasted with patterns described for another language. Thanks to the notion of hierarchy in language in the theory, such patterns described for two languages can be contrasted on clear-cut levels of consideration, such as Sentence level, Clause level, Phrase level, etc. Furthermore, the notion of tagmeme as slot plus filler-class permits to see whether patterns of two languages differ in their tagmemes (i.e. patterns in one language have some tagmemes that patterns in the other do not), or just in the filler-classes of their tagmemes (i.e. patterns in two languages contain the same functional slots, but the slots are filled by a different number of distribution-subclasses).

For practical grammar discovery procedures, Robert E. Longacre's grammar discovery procedures stated in his *Grammar discovery Procedures* are used with some theoretical modifications as follows:

Firstly, concerning the scope of analysis, the word level analysis is purposely omitted in this study, because since Vietnamese has no inflections or derivations, there is no point in giving a contrastive analysis on the word level. Nevertheless, in English grammar, word level compulsory grammatical categories (for examples case, gender, person-number, etc.) are stated.

Secondly, Phrase level tagmemes are not analyzed for their own sake but as fillers of Clause level slots. The result of this way of presenting is that Phrase level tagmemes are presented in the discussion of internal structures of Clause level tagmemes. For example, the Verb Phrase is presented in the section on the Clause level Predicate tagmeme. This way of presenting is more accurate because, for example, in the analysis of the Noun Phrase as an alternate distribution-subclass of the Clause level Subject filler class, and again if necessary as an alternate distribution-subclass of the Clause level Attributive filler class, it becomes evident that a Noun Phrase can be different when it fills a Subject slot or an Attributive slot. Example: a Determiner is obligatory in a Noun Phrase filling a Subject

slot, but it is omitted in a Noun Phrase filling an Attributive slot -

The president was acclaimed.

John was elected president.

(For further detail on presentation, see Chapter 3 in each Grammar.)

Thirdly, Longacre's requirements for the distinction of two syntagmemes as:

"For two patterns (syntagmemes) to be in contrast they must have more than one structural difference between them; at least one of these differences must involve the nuclei of the syntagmemes",

op.cit. p.18, seem rather difficult to be met when it is to contrast two syntagmemes in Vietnamese.

As a matter of fact, Vietnamese, being an uninflectional language, can rely only upon two grammatical devices, word order, and functional words. This limited number of grammatical devices means that sometimes two different syntagmemes have only one structural difference, or even none. In the latter case, it is possible to find only non-formal differences such as (a) differing transform potential, (b) differing potential of internal expansion, (c) different syntactic meaning, i.e. it is sometimes necessary to rely upon the native speaker's intuition.

It is not necessary to give examples of such cases here, because in the Vietnamese Grammar, wherever Longacre's requirements for the distinction of two syntagmemes are not met, there is always a short theoretical explication defending the differentiation of the syntagmemes.

Even in English, which can make use of more grammatical devices than Vietnamese (word order, function words, inflectional and derivational suffixes), there is also a need to rely upon the native speaker's intuition rather than to require more than one structural difference in the differentiation of two syntagmemes.

Longacre himself, while discussing Noam Chomsky's paper "The Logical Basis of Linguistic Theory" at the Ninth Congress of Linguists, handles the ambiguity in the sentence:

I don't approve of his drinking

"by setting up two contrasting total formulae both of which may have homophonous minimum manifestations:

+Possessive +Gerund ±Object

+Possessive ±Adjective +Nominal".⁴

Thus, it is sufficient to say simply that there may be more of these kinds of homophonous manifestations of contrasting formulae in Vietnamese than in English; then, less formalism is sometimes permitted in the discovering of syntagmemes in Vietnamese.

⁴ In Horace G. Lunt (ed.), *Proceedings of the Ninth International Congress of Linguists*. Mouton and Co., The Hague, 1964, p.998.

2. Transformational Grammar and Grammatical Matrix Theory

Grammatical patterns of a language comprise a system; they are interrelated. There are two ways to show relations among patterns. Both of these ways are incorporated to some degree in this study.

The first way to show relations among grammatical patterns to be discussed here is grammatical matrix theory. The theory, developed by Kenneth L. Pike,⁵ offers a way of showing relations between constructions in general (sentences, clauses, phrases, etc.) by conceptualizing them as charted together in various dimensions. It is applied in the present paper in the charting of Sentence Types and Clause Types of both English and Vietnamese (cf. Chapters II, and V in each Grammar).

The second way is transformational grammar, which is not immiscible with tagmemics. In fact, Pike himself says:

"... so it would seem possible that if tagmemics and transform grammar are both developed far enough, that they could come to the point of complete overlap."⁶

There is even no need to justify the introduction of transformational grammar to the analysis in this paper, but just to quote from Noam Chomsky:

"The motivation for adding transformational rules to grammar is quite clear. There are certain sentences (in fact, simple declarative active sentences with no complex noun or verb phrases - or, to be more precise, the terminal strings underlying these) that can be generated by a constituent structure grammar in quite a natural way. There are others (e.g. passive, questions, sentences with discontinuous phrases and complex phrases that embed sentence transforms) that cannot be generated in an economic and natural way by a constituent structure grammar, but that are systematically related to sentences of simpler structure. Transformations that are constructed to express this relation can thus materially simplify the grammar when used to generate more complex sentences and their structural descriptions from already generated simpler ones."⁷

⁵ Kenneth L. Pike, "Dimensions of Grammatical Constructions", *Language*, 38.221-244 (1962).

⁶ Kenneth L. Pike, *Language*, Part III, p.36b.

⁷ Noam Chomsky, "On the notion of 'Rule of Grammar'", *Proceedings of the Twelfth Symposium in Applied Mathematics* XII.6-24 (1961), reprinted in J.A. Fodor and J.J. Katz (ed.), *The Structure of Language*. New Jersey, 1964, pp.119-136. Quotation, page 129.

The insertion into a tagmemic framework of a transformational model from which notion of transformations and rewrite rules is adapted, requires some theoretical modifications to the model. Following are the differences between the original transformational model and its adapted form used here. It is understood that the following discussion is not a criticism nor an evaluation of transformational grammar.

Firstly, there is a difference in the postulation of grammatical hierarchical levels of consideration.

The transformational model, while defining grammar as a sentence generating device which is able to produce all and only grammatical sentences of a language by means of various kinds of rules for re-writing elements, begins necessarily with the element Sentence⁸ and works down through various levels to the phonemic level⁹ or beyond (to the level of distinctive features).¹⁰

In this study, since "In essence, the clause posits a situation in miniature (whether asserting, questioning, commanding, or equating)"¹¹ the grammatical procedures start with Clause level syntagmemes (Clause Types) rather than with Sentence level syntagmemes. A result of this is that grammatical transforms (transformations) can operate at any level of the grammatical hierarchy, and do not have to be embedded in overall sentence matrices. Thus, for examples, on the Clause level, a Yes-No Interrogative Transform can be applied to any Clause Type of the Independent Declarative Clause Class to derive an Independent Yes-No Interrogative Clause Type (cf. Chapter II in each Grammar), or in the Phrase a Negative (*don't*) Transform or a Negative Auxiliary (or Modal) Transform can be applied to an Affirmative Verb Phrase in English to derive a Negative (*don't*) Verb Phrase or a Negative Auxiliary (or Modal) Verb Phrase (see Section 3.1. in each Grammar).

In postulating Clause level syntagmemes, or Phrase level syntagmemes as possible matrices for transformations, there is no need any more to make a distinction between Singularly Transformations and Generalized Transformations¹² (which is necessary in transformational grammar to make a distinction between Complex Sentences - that, in transformational grammar terms, have more than one Phrase-Structure

⁸ Noam Chomsky, *Syntactic Structures*. Mouton and Co., 1957, pp. 37ff.

⁹ Morris Halle, "Phonology in Generative Grammar". *Word* 18.54-72 (1962).

¹⁰ For a model of distinctive feature analysis in phonology, see, for example, Roman Jakobson and Morris Halle, *Fundamentals of Language*. Mouton and Co., 1956.

¹¹ Robert E. Longacre, *Grammar Discovery Procedures*, p. 35.

¹² Jerrold J. Katz and Paul M. Postal, *An Integrated Theory of Linguistic Descriptions*. The M.I.T. Press, Cambridge, Mass., 1964.

tree in their derivational history - and Simple Sentences - whose derivational history includes only one Phrase-Structure tree - because our transformations operate now on a different grammatical hierarchical level than the Sentence level. Then, on the Sentence level, the classification of Sentences into Simple, Compound, and Complex Sentence Types is based upon the number and nature of Clause Types they contain (cf. Chapter V in each Grammar).

Secondly, there is a different usage of the term *kernel* on the early form of Transformational Grammar¹³ and here. The term has a larger meaning here in two ways.

In *Syntactic Structures*, Chomsky defines kernel sentences as "the set of sentences that are produced when we apply obligatory transformations to the kernel strings of the (phrase structure) grammar", p.45. In other words, there are no kernel strings in other grammatical hierarchical levels except in the Sentence level, and there are no kernel strings that have undergone an optional transformation.

The term kernel as used here has a larger meaning in the first way in the sense that there can be kernel strings or structures on any grammatical hierarchical level. A kernel is any structure to which a Transform (transformation) can be applied. Thus, for examples, on the Clause level, an Independent Declarative Clause Type is the kernel structure to which the Yes-No Interrogative Transform can be applied to derive an Independent Yes-No Interrogative Clause Type, or an Affirmative Verb Phrase is the kernel structure to which a Negative (*don't*) Transform, or a Negative Auxiliary (or Modal) Transform can be applied to derive a Negative Verb Phrase in English.

The term kernel as used here has a larger meaning in the second way in the sense that it means a basis for transformation: a kernel structure can have undergone optional transformations (Chomsky's types of optional transformations).¹⁴ As an illustration, the following Independent Declarative Clause "he went to Sydney" is the kernel structure to which the Yes-No Interrogative Transform is applied to derive the Independent Yes-No Interrogative Clause "did he go to Sydney", which in its turn is the kernel structure to which the Extra Interrogative Transform is applied to derive the Independent Extra Interrogative Clause "when did he go to Sydney"¹⁵ (cf. Chapter II in

¹³ Paul Schachter, in his "Kernel and Non-Kernel Sentences in Transformational Grammar", in Horace G. Lunt (ed.), *op.cit.*, pp.692-696, demonstrates the relative triviality of the distinction made between kernel and non-kernel sentences in early models of Transformational Grammar.

¹⁴ Noam Chomsky, *Syntactic Structures*, pp.45ff.

¹⁵ Zellig S. Harris, in his "Co-occurrence and Transformation in Linguistic Structure", *Language*, 33.293-340 (1957), stresses that any sentence in the language may be used as the basis for transformation. In a sense, the transformational model adapted in the present study is closer to Harris's theory than to Chomsky's in the definition of kernel structures.

each Grammar).

Thirdly, seeing that in learning English or Vietnamese as a foreign language, one has to master the intonation pattern of the language, and since the ultimate purpose of the present study is for pedagogical applications, intonation is considered here as an important component of Sentences. Consequently, it is stated in structural formulae of Sentence Types in this study, while it is not stated in transformational grammar.¹⁶

Fourthly, and last in the list, since a statement in terms of item and process needs an adequate statement of item units before the process can be most effectively implied, the grammatical model here attempted differs from current transformational grammar by setting up the item units, namely tagmemes at all grammatical hierarchical levels.¹⁷ This postulation of item units for a generative grammar is urged by Pike in these terms:

"At some point, it would seem, transform grammar needs a further unit to be identified and transformed. It is our belief that the tagmeme, or something very much like it in structure, is needed for this purpose in transform grammar."¹⁸

(For overall statements on the postulation of tagmemes on different grammatical levels and Phrase-Structure representations, see Appendices in each Grammar.)

¹⁶ Robert P. Stockwell, in his "The Place of Intonation in a Generative Grammar of English", *Language*, 36.3 pp.360-367, does the pioneering work to incorporate intonation into generative grammars. His first generative rule is $S \rightarrow \text{Nuc.} + \text{IP}$ (Intonation Pattern), and his second rule is $\text{Nuc.} \rightarrow \text{NP} + \text{VP}$ (Chomsky's $S \rightarrow \text{NP} + \text{VP}$).

¹⁷ I am indebted to Dr Robert E. Longacre for informing me that my combined tagmemic and transformational approach is very parallel to his own in "Transformational Parameters in Tagmemic Field Structures", *Georgetown Monograph Series*, volume reporting the Round Table held in March 1965, pp.43-58. In the article, he says: "Tagmemics can gain many valuable insights from transformational grammar. Transformational grammar could learn some things from tagmemics as well: more explicit functional orientation; use of function-set notation to clarify transformation rules; and sufficient attention to field structures to fit transformations in adequate context", p.58. For examples of "transformational parameters", see Chapters 2 in both my English Grammar, and Vietnamese Grammar.

¹⁸ Kenneth L. Pike, *Language*, Part III, p.36b.

TABLE OF CONTENTS

	<i>Page</i>
<i>PREFACE</i>	v
<i>ACKNOWLEDGEMENTS</i>	vi
GENERAL INTRODUCTION	vii
INTRODUCTION TO THE GRAMMAR DISCOVERY PROCEDURES ADOPTED	xxii
<i>SPECIAL SIGNS AND ABBREVIATIONS</i>	xliii
Chapter 1: INDEPENDENT DECLARATIVE CLAUSE TYPES	1
1.0. Introductory	1
1.1. Classification	1
1.2. Clause Classes and Pertinent Remarks	3
1.2.1. Selection of the form of the Predicate	3
1.2.2. The Passive Transitive Clause Class	4
1.2.2a. The Passive Transform	4
1.3. Independent Declarative Clause Types in Detail	5
1.3.0. Introductory	5
1.3.0.1. Minimum Nucleus Formulae	5
1.3.0.2. Expanded Maximum Formulae	5
1.3.1. Independent Declarative Clause Type 1: Active In-transitive Declarative Clause Type	6
1.3.2. Independent Declarative Clause Type 2: Active Single Transitive Declarative Clause Type	7
1.3.3. Independent Declarative Clause Type 3: Active Double Transitive Declarative Clause Type	8
1.3.3a. The Indirect Object Transform	9
1.3.4. Independent Declarative Clause Type 4: Active Attributive Transitive Declarative Clause Type	10
1.3.5. Independent Declarative Clause Type 5: Passive Single Transitive Declarative Clause Type	11
1.3.6. Independent Declarative Clause Type 6: Passive Double Transitive Declarative Clause Type	13
1.3.7. Independent Declarative Clause Type 7: Passive Attributive Transitive Declarative Clause Type	15
1.3.8. Independent Declarative Clause Type 8: Equational Declarative Clause Type	16
1.3.9. Independent Declarative Clause Type 9: (<i>There</i>) Stative Declarative Clause Type	17
1.3.10. Independent Declarative Clause Type 10: (<i>It</i>) Stative Declarative Clause Type	18

	<i>Page</i>
1.3.10a. Some other uses of the obligatory nucleus Logical Subject (<i>It</i>)	20
Chapter 2: CLAUSE CLASSES	21
2.0. Classification	21
2.1. Clause Classes in Detail	24
2.1.0. Introductory	24
2.1.1. (Independent) Declarative Clause Class	24
2.1.2. (Independent) Imperative Clause Class	25
2.1.3. (Independent) Yes-No Interrogative Clause Class	25
2.1.3a. The Yes-No Transform	28
2.1.4. (Independent) Interrogative Subject Clause Class	28
2.1.4a. The Interrogative Subject Transform	28
2.1.4b. The obligatory nucleus Interrogative Subject tagmeme	28
2.1.5. (Independent) Interrogative Non-Subject Clause Class	30
2.1.5a. The Non-Subject Interrogative Transform	30
2.1.5b. The obligatory nucleus Interrogative Non-Subject tagmeme	30
2.1.5b.1. Alternate division-subclass Interrogative Direct Object tagmeme	32
2.1.5b.2. Alternate division-subclass Interrogative Indirect Object tagmeme	32
2.1.5b.2a. Note on the Indirect Object Introducer (<i>to</i>)	32
2.1.5b.3. Alternate division-subclass Interrogative Attributive tagmeme	32
2.1.5b.4. Alternate division-subclass Interrogative Equational Complement tagmeme	33
2.1.5b.5. Alternate division-subclass Interrogative Stative Subject tagmeme	33
2.1.5b.6. Alternate division-subclass Interrogative Stative Complement tagmeme	33
2.1.6. (Independent) Extra Interrogative Clause Class	34
2.1.6a. The Interrogative Addition Transform	34
2.1.6b. The obligatory nucleus Interrogative Clause Introducer	34
2.1.7. Dependent Subject Clause Class	36
2.1.7a. The Dependent Subject Transform	36
2.1.7b. Obligatory nucleus Dependent Subject tagmeme	36
2.1.8. Dependent Non-Subject Clause Class	36
2.1.8a. The Non-Subject Dependent Transform	39
2.1.8b. The optional nucleus Dependent Non-Subject tagmeme	39
2.1.8b.1. Alternate division-subclass Dependent Direct Object tagmeme	39
2.1.8b.2. Alternate division-subclass Dependent Indirect Object tagmeme	39
2.1.8b.2a. Note on the Indirect Object Introducer (<i>to</i>)	40

	<i>Page</i>
2.1.8b.3. Alternate division-subclass Dependent Equational Complement tagmeme	40
2.1.9. Dependent Relative Clause Class	40
2.1.9a. The Relative Dependent Transform	42
2.1.9b. The optional nucleus Dependent Relative Clause Introducer	42
2.1.10. Extra Dependent Clause Class	42
2.1.10a. The Dependent Addition Transform	44
2.1.10b. Obligatory Dependent Clause Introducer tagmeme	44
2.2. The ten complete Clause Classes and their Transforms	44
2.3. The 87 complete Clause Types	44
Chapter 3: INTERNAL STRUCTURES OF CLAUSE LEVEL TAGMEMES	48
3.0. Introductory	48
3.1. Nucleus Clause Level tagmemes	48
3.1.0. Introductory	48
3.1.1. The obligatory nucleus Predicate tagmeme	48
3.1.1.1. Internal Structure of the Verb Phrase Hyperclass	49
3.1.1.1.1. Close-knit Active Verb Phrase	49
3.1.1.1.2. Close-knit Passive Verb Phrase	52
3.1.1.1.3. Close-knit Negated Declarative Verb Phrases	55
3.1.1.1.3.1. The alternate division-subclass Negated Declarative (<i>don't</i>) Verb Phrase	55
3.1.1.1.3.2. The alternate division-subclass Negated Declarative (<i>n't</i>) Verb Phrase	56
3.1.1.1.3.2a. Note on the form (<i>n't</i>)	57
3.1.1.1.4. Close-knit Interrogative Verb Phrases	57
3.1.1.1.4.1. The alternate division-subclass Interrogative (<i>do</i>) Verb Phrase	57
3.1.1.1.4.1a. Negation of the Interrogative (<i>do</i>) Verb Phrase	58
3.1.1.1.4.2. The alternate division-subclass Interrogative Modal (or Auxiliary) Verb Phrase	59
3.1.1.1.4.2a. Negation of the Interrogative Modal (or Auxiliary) Verb Phrase	60
3.1.1.1.5. Verb Phrase Substitutes	61
3.1.1.1.5.1. The alternate division-subclass Substitute (<i>do</i>) Phrase	61
3.1.1.1.5a. Negation of the Substitute (<i>do</i>) Phrase	61
3.1.1.1.5.2. The alternate division-subclass Substitute Modal (or Auxiliary) Phrase	62
3.1.1.1.6. The optional satellite Delimiter tagmeme	63
3.1.1.2. Verb stem classes, division-subclasses, and co- occurrence-subclasses	63
3.1.1.2.1. The Intransitive Verb stem class	64
3.1.1.2.1.1. The Intransitive Verb stem _s alternate division- subclass	64

	<i>Page</i>
3.1.1.2.1.2. The Intransitive Verb stem _{prep} alternate division-subclass	64
3.1.1.2.2. The Single Transitive Verb stem class	64
3.1.1.2.2.1. The Single Transitive Verb stem _s alternate division-subclass	64
3.1.1.2.2.1.1. The Single Transitive Verb stem _{s1} co-occurrence-subclass	65
3.1.1.2.2.1.2. The Single Transitive Verb stem _{s2} co-occurrence-subclass	65
3.1.1.2.2.1.3. The Single Transitive Verb stem _{s3} co-occurrence-subclass	65
3.1.1.2.2.1.4. The Single Transitive Verb stem _{s4} co-occurrence-subclass	66
3.1.1.2.2.1.5. The Single Transitive Verb stem _{s5} co-occurrence-subclass	66
3.1.1.2.2.1.6. The Single Transitive Verb stem _{s6} co-occurrence-subclass	66
3.1.1.2.2.1.7. The Single Transitive Verb stem _{s7} co-occurrence-subclass	67
3.1.1.2.2.1.8. The Single Transitive Verb stem _{s8} co-occurrence-subclass	67
3.1.1.2.2.1.9. The Single Transitive Verb stem _{s9} co-occurrence-subclass	67
3.1.1.2.2.1.10. The Single Transitive Verb stem _{s10} co-occurrence-subclass	68
3.1.1.2.2.1.11. The Single Transitive Verb stem _{s11} co-occurrence-subclass	68
3.1.1.2.2.1.12. The Single Transitive Verb stem _{s12} co-occurrence-subclass	69
3.1.1.2.2.2. The Single Transitive Verb stem _{prep} alternate division-subclass	69
3.1.1.2.2.2.1. The Single Transitive Verb stem _{prep1} co-occurrence-subclass	69
3.1.1.2.2.2.2. The Single Transitive Verb stem _{prep2} co-occurrence-subclass	69
3.1.1.2.3. The Double Transitive Verb stem class	70
3.1.1.2.3.1. The Double Transitive Verb stem _n alternate division-subclass	70
3.1.1.2.3.1.1. The Double Transitive Verb stem _{n1} co-occurrence-subclass	70
3.1.1.2.3.1.2. The Double Transitive Verb stem _{n2} co-occurrence-subclass	71
3.1.1.2.3.1.3. The Double Transitive Verb stem _{n3} co-occurrence-subclass	71
3.1.1.2.3.2. The Double Transitive Verb stem _v alternate division-subclass	72

	<i>Page</i>
3.1.1.2.3.2.1. The Double Transitive Verb stem _{v1} co-occurrence-subclass	72
3.1.1.2.3.2a. Note on the Double Transitive Clause Type	72
3.1.1.2.3.2.2. The Double Transitive Verb stem _{v2} co-occurrence-subclass	73
3.1.1.2.3.2.3. The Double Transitive Verb stem _{v3} co-occurrence-subclass	73
3.1.1.2.4. The Attributive Transitive Verb stem class	74
3.1.1.2.4.1. The Attributive Transitive Verb stem _{part} co-occurrence-subclass	74
3.1.1.2.4.2. The Attributive Transitive Verb stem _{adj} co-occurrence-subclass	74
3.1.1.2.4.3. The Attributive Transitive Verb stem _n co-occurrence-subclass	74
3.1.1.2.5. The Equational Verb stem class	75
3.1.1.2.5.1. The Equational Intransitive Verb stem alternate distribution-subclass	75
3.1.1.2.5.1.1. The Equational Intransitive Verb stem _{part} co-occurrence-subclass	75
3.1.1.2.5.1.2. The Equational Intransitive Verb stem _{adj} co-occurrence-subclass	75
3.1.1.2.5.1.3. The Equational Intransitive Verb stem _n co-occurrence-subclass	76
3.1.1.2.5.2. The Semi-Auxiliary stem alternate distribution-subclass	76
3.1.1.2.5.2.1. The Semi-Auxiliary stem _{n-adj} co-occurrence-subclass	76
3.1.1.2.5.2.2. The Semi-Auxiliary stem _{adj} co-occurrence-subclass	77
3.1.1.2.5.3. The Auxiliary (be) stem alternate distribution-subclass	77
3.1.1.2.6. The Auxiliary (be) stem	78
3.1.2. The obligatory nucleus Subject tagmeme	78
3.1.2.1. The Noun Phrase alternate distribution-subclass	78
3.1.2.1.1. The Noun _{Noun} Phrase alternate division-subclass	79
3.1.2.1.1.1. The Common Noun _{Noun} Phrase alternate division-subclass	79
3.1.2.1.1.1.1. The Common Noun _{Noun-Count} Phrase alternate division-subclass	79
3.1.2.1.1.1.1.1. The Common Noun _{Noun-Count.Singular} Phrase co-occurrence-subclass	79
3.1.2.1.1.1.1.2. The Common Noun _{Noun-Count.Plural} Phrase co-occurrence-subclass	81

	<i>Page</i>
3.1.2.1.1.1.2. The Common Noun _{Noun-Mass} Phrase alternate division-subclass	82
3.1.2.1.1.1a. Optional satellite tagmemes of the Common Noun _{Noun} Phrase	83
3.1.2.1.1.1a.1. The optional satellite Pre-Determiner tagmeme	83
3.1.2.1.1.1a.2. The optional satellite Ordinal tagmeme	84
3.1.2.1.1.1a.3. The optional satellite Numeral tagmeme	84
3.1.2.1.1.1a.4. The optional satellite Modifier 1 tagmeme	85
3.1.2.1.1.1a.4.1. The alternate distribution-subclass Adjective Phrase	85
3.1.2.1.1.1a.4.1a. The Adjective stem class	86
3.1.2.1.1.1a.4.2. The alternate distribution-subclass Verb _(-en) Phrase	86
3.1.2.1.1.1a.4.3. The alternate distribution-subclass Verb _(-ing) Phrase	87
3.1.2.1.1.1a.5. The optional satellite Modifier 2 tagmeme	87
3.1.2.1.1.1a.6. The optional satellite Post-Modifier tagmeme	88
3.1.2.1.1.1a.6.1. The alternate distribution-subclass Complex Modifier 1	89
3.1.2.1.1.1a.6.2. The alternate distribution-subclass Location Adverb Phrase	89
3.1.2.1.1.1a.6.3. The alternate distribution-subclass Location Relator Axis Phrase	90
3.1.2.1.1.1a.6.4. The alternate distribution-subclass Noun Phrase	90
3.1.2.1.1.1a.6.5. The alternate distribution-subclass (to) Verb Phrase	90
3.1.2.1.1.1a.6.6. The alternate distribution-subclass Appositive Phrase	91
3.1.2.1.1.1a.6.7. The alternate distribution-subclass Reflexive Pronoun	91
3.1.2.1.1.1a.6.8. The alternate distribution-subclass Dependent Clause	92
3.1.2.1.1.2. The Proper Noun _{Noun} Phrase alternate division-subclass	93
3.1.2.1.1.2.1. The Personal Proper Noun _{Noun} Phrase co-occurrence-subclass	93
3.1.2.1.1.2.2. The Non-Personal Proper Noun _{Noun} Phrase alternate division-subclass	93
3.1.2.1.1.2.2.1. The Non-Personal Proper Noun _{Noun1} Phrase co-occurrence-subclass	94
3.1.2.1.1.2.2.2. The co-occurrence-subclass Non-Personal Proper Noun _{Noun2} Phrase	94

	<i>Page</i>
3.1.2.1.2. The Nominalized Adjective Phrase alternate division-subclass	95
3.1.2.1.2a. The Nominalized Adjective Phrase alternate division-subclass	96
3.1.2.1.3. The Nominalized Verb _(-en) Phrase alternate division-subclass	97
3.1.2.1.4. The Nominalized Verb _(-ing) Phrase alternate division-subclass	97
3.1.2.1.4a. Note on the Nominalized Verb _(-ing) Phrase	98
3.1.2.2. The Pronoun Phrase alternate distribution-subclass	98
3.1.2.2.1. The Personal Subject Pronoun Phrase alternate division-subclass	98
3.1.2.2.2. The Indeterminate Pronoun Phrase alternate division-subclass	99
3.1.2.2.3. The Demonstrative Pronoun Phrase alternate division-subclass	99
3.1.2.2.4. The Possessive Pronoun Phrase alternate division-subclass	100
3.1.2.2.5. The Possessive Case Phrase alternate division-subclass	100
3.1.2.3. The Relator Axis Phrase alternate distribution-subclass	100
3.1.2.4. The Verb Phrase alternate distribution-subclass	100
3.1.2.4.1. The (to) Verb Phrase alternate division-subclass	100
3.1.2.4.2. The Verb _(-ing) Phrase alternate division-subclass	101
3.1.2.5. The Dependent Clause alternate distribution-subclass	101
3.1.2.6. The Defective Clause distribution-subclass	102
3.1.3. The obligatory nucleus Direct Object tagmeme	102
3.1.3.1. Noun Phrase alternate distribution-subclass	103
3.1.3.2. The Pronoun Phrase alternate distribution-subclass	103
3.1.3.2.1. The Personal Object Pronoun Phrase alternate division-subclass	103
3.1.3.3. Adverb Phrase alternate distribution-subclass	104
3.1.3.4. The Verb Phrase alternate distribution-subclass	104
3.1.3.5. The Dependent Clause alternate distribution-subclass	105
3.1.3.5.1. The Declarative Dependent Clause Type alternate division-subclass	105
3.1.3.5.2. The Subjunctive Dependent Relative Clause alternate division-subclass	106
3.1.3.6. The Defective Clause alternate distribution-subclass	106
3.1.4. The obligatory nucleus Indirect Object tagmeme	106
3.1.4.1. The Noun Phrase alternate distribution-subclass	107
3.1.4.2. The Pronoun Phrase alternate distribution-subclass	107
3.1.4.3. The Dependent Clause alternate distribution-subclass	108

	<i>Page</i>
3.1.5. The obligatory nucleus Attributive tagmeme	108
3.1.5.1. The Noun Phrase alternate distribution-subclass	109
3.1.5.1.1. The Noun Phrase alternate division-subclass	109
3.1.5.1.2. The Attributive Noun Phrase alternate division-subclass	109
3.1.5.2. The Adjective Phrase alternate distribution-subclass	109
3.1.5.3. The Verb(_{-en}) Phrase alternate distribution-subclass	109
3.1.6. The obligatory nucleus Equational Complement tagmeme	110
3.1.6.1. The Noun Phrase alternate distribution-subclass	110
3.1.6.2. The Pronoun Phrase alternate distribution-subclass	111
3.1.6.3. The Adjective Phrase alternate distribution-subclass	111
3.1.6.4. The Verb(_{-en}) Phrase alternate distribution-subclass	111
3.1.6.5. The Verb Phrase alternate distribution-subclass	112
3.1.6.6. The Location Adverb Phrase alternate distribution-subclass	112
3.1.6.7. The Location Relator Axis Phrase alternate distribution-subclass	112
3.1.6.8. The Dependent Clause alternate distribution-subclass	113
3.1.6.9. The Defective Clause alternate distribution-subclass	113
3.1.7. The obligatory nucleus Stative Subject tagmeme	113
3.1.7.1. The Noun Phrase alternate distribution-subclass	114
3.1.7.2. The Pronoun Phrase alternate distribution-subclass	114
3.1.7.3. The Dependent Clause distribution-subclass	115
3.1.8. The obligatory nucleus Stative Complement tagmeme	115
3.1.8.1. The Noun Phrase alternate distribution-subclass	116
3.1.8.2. The Pronoun Phrase alternate distribution-subclass	116
3.1.8.3. The alternate distribution-subclass Dependent Clause	117
3.1.9. The optional nucleus Agent tagmeme	117
3.1.9.1. The Noun Phrase alternate distribution-subclass	117
3.1.9.2. The Pronoun Phrase alternate distribution-subclass	118
3.1.9.3. The Dependent Clause alternate distribution-subclass	119
3.2. Optional satellite Clause level tagmemes	119
3.2.0. Introductory	119
3.2.1. The optional satellite Indirect Object tagmeme	120
3.2.2. The optional satellite Accompaniment tagmeme	121
3.2.3. The optional satellite Benefactor tagmeme	121
3.2.4. The optional satellite Instrument tagmeme - see <i>Addendum</i> , page xli	121
3.2.4.1. The alternate division-subclass Instrument Relator Axis Phrase 1	121
3.2.4.2. The alternate division-subclass Instrument Relator Axis Phrase 2	122
3.2.5. The optional satellite Time tagmeme	122
3.2.5.1. The alternate distribution-subclass Time Adverb Phrase	122

	<i>Page</i>
3.2.5.1.1. The co-occurrence-subclass Time Adverb Phrase 1	122
3.2.5.1.2. The co-occurrence-subclass Time Adverb Phrase 2	123
3.2.5.1.3. The co-occurrence-subclass Time Adverb Phrase 3	123
3.2.5.2. The alternate distribution-subclass Time Locution	123
3.2.5.3. The alternate distribution-subclass Extra Dependent Time Clause	123
3.2.6. The optional satellite Frequency tagmeme	124
3.2.6.1. The alternate distribution-subclass Frequency Adverb Phrase	124
3.2.6.2. The alternate distribution-subclass Frequency Noun Phrase	125
3.2.6.3. The alternate distribution-subclass Frequency Locution	125
3.2.7. The optional satellite Location-Direction tagmeme	126
3.2.7.1. The alternate distribution-subclass Location Adverb Phrase	126
3.2.7.2. The alternate distribution-subclass Location Relator Axis Phrase	126
3.2.7.3. The alternate distribution-subclass Extra Dependent Location Clause.	126
3.2.8. The optional satellite Manner tagmeme	127
3.2.8.1. The alternate distribution-subclass Manner Adverb Phrase	127
3.2.8.2. The alternate distribution-subclass Manner Relator Axis Phrase	128
3.2.9. The optional satellite Purpose tagmeme	128
3.2.9.1. The alternate distribution-subclass Purpose Relator Axis Phrase 1	128
3.2.9.2. The alternate distribution-subclass Purpose Relator Axis Phrase 2	129
3.2.9.3. The alternate distribution-subclass Extra Dependent Purpose Clause	129
3.2.10. The optional satellite Cause tagmeme	130
3.2.10.1. The alternate distribution-subclass Cause Relator Axis Phrase	130
3.2.10.2. The alternate distribution-subclass Extra Dependent Cause Clause	130
3.2a. Emphasized Place of an optional satellite Clause level tagmeme	130
3.2b. The optional satellite Clause level tagmeme ordering	131
Chapter 4: LINKING TAGMEMES AND CROSS-LEVEL CONSTRUCTIONS	133
4.0. Introductory	133
4.1. The Coordinator tagmeme	133
4.1.1. The alternate division-subclass Single Coordinator	133

	<i>Page</i>
4.1.2. The alternate division-subclass Double Coordinator	134
4.2. The Comparative tagmeme	134
4.2.1. The alternate division-subclass Equality Comparative tagmeme	134
4.2.2. The alternate division-subclass Superiority Comparative tagmeme	135
4.2.3. The alternate division-subclass Inferiority Comparative tagmeme	135
4.3. The Resultative tagmeme	136
4.3.1. The alternate division-subclass Resultative 1 tagmeme	136
4.3.2. The alternate division-subclass Resultative 2 tagmeme	137
4.3.3. The alternate division-subclass Resultative 3 tagmeme	137
Chapter 5: ENGLISH SENTENCE TYPES AND SENTENCE LEVEL STRUCTURES	139
5.0. Introductory	139
5.0.1. Classification	139
5.1. Major Independent Sentence Types	140
5.1.1. Simple Major Independent Sentence Types	140
5.1.1.1. Simple Major Independent Sentence Type 1: Simple Major Independent Declarative Sentence Type	140
5.1.1.2. Simple Major Independent Sentence Type 2: Simple Major Independent Interrogative Sentence Type	141
5.1.1.2.1. Simple Major Independent Sentence Type 2.1.: Simple Major Independent Yes-No Interrogative Sentence Type	141
5.1.1.2.2. Simple Major Independent Sentence Type 2.2.: Simple Major Independent Information Interrogative Sentence Type	141
5.1.1.3. Simple Major Independent Sentence Type 3: Simple Major Independent Imperative Sentence Type	144
5.1.2. Compound Major Independent Sentence Types	144
5.1.3. Complex Major Independent Sentence Types	145
5.1.4. The Compound Major Independent Echo Interrogative Sentence Type	146
5.1.5. The Complex Major Independent Suppositional Sentence Type	147
5.2. Major Dependent Sentence Types	148
5.2.1. Major Dependent Sequence Sentence Types	148
5.2.2. Major Dependent Parentheses Sentence Types	148
5.2.3. Major Dependent Short Response Sentence Types	149
Appendix: OUTLINE OF GRAMMATICAL STRUCTURES IN ENGLISH	151
1.1. Simple Major Independent Declarative Sentence Type	152
1.2. Simple Major Independent Declarative Sentence Type	153

	<i>Page</i>
1. 3. Simple Major Independent Declarative Sentence Type	154
1. 4. Simple Major Independent Declarative Sentence Type	155
1. 5. Simple Major Independent Declarative Sentence Type	156
1. 6. Simple Major Independent Declarative Sentence Type	157
1. 7. Simple Major Independent Declarative Sentence Type	158
1. 8. Simple Major Independent Declarative Sentence Type	159
1. 9. Simple Major Independent Declarative Sentence Type	160
1. 10. Simple Major Independent Declarative Sentence Type	161
2. Simple Major Independent Yes-No Interrogative Sentence Type	162
3. 1. Simple Major Independent Information Interrogative Sentence Type	163
3. 2. Simple Major Independent Information Interrogative Sentence Type	164
3. 3. Simple Major Independent Information Interrogative Sentence Type	165
4. Simple Major Independent Imperative Sentence Type	166
5. Compound Major Independent Declarative Sentence Type	167
6. 1. Complex Major Independent Declarative Sentence Type	168
6. 2. Complex Major Independent Declarative Sentence Type	169
6. 3. Complex Major Independent Declarative Sentence Type	170
7. Compound Major Independent Echo Interrogative Sentence Type	171
REFERENCES	173
SUMMARY TABLES -	
Summary Table I: Independent Declarative Clause Class I	2
Summary Table II: Classification of the ten Clause Classes into more global Classes	22
Summary Table III: Independent Declarative, Yes-No Interrogative, and Imperative Clause Classes 1, 2, 3	26
Examples reflecting Summary Table III	27
Summary Table IV: Independent Interrogative Subject Clause Class 4	29
Summary Table V: Independent Interrogative Non-Subject Clause Class 5	31
Summary Table VI: Independent Extra Interrogative Clause Class 6	35
Summary Table VII: Dependent Subject Clause Class 7	37
Summary Table VIII: Dependent Non-Subject Clause Class 8	38
Summary Table IX: Dependent Relative Clause Class 9	41
Summary Table X: Extra Dependent Clause Class 10	43
Summary Table XI: The six Independent Clause Classes and their Transforms	45

	<i>Page</i>
Summary Table XII: The four Dependent Clause Classes and their Transforms from the kernel In- dependent Declarative Clause Class	46
Summary Table XIII: The 87 English Complete Clause Types	47
Summary Table XIV: The Verbal Hyperclass	49
Summary Table XV: The optional satellite Clause level tagmeme ordering	132
Summary Table XVI: Major Independent Sentence Types	142
Examples reflecting Summary Table XVI	143
 ADDENDUM	 xli

Addendum

Page 121 -

Insert, between 3.2.3. and 3.2.4.1.:

3.2.4. $\pm I \left\{ \begin{array}{l} \text{IRelAx-Phr}_1 \\ \text{IRelAx-Phr}_2 \end{array} \right\}$, the optional satellite Instrument
tagmeme

FILLERS: the optional satellite Instrument slot is filled by a composite filler class including two alternate division-subclasses: Instrument Relator Axis Phrase 1; Instrument Relator Axis Phrase 2.

Special Signs and Abbreviations

The following different signs are used in this paper:

The plus sign, +, indicates the obligatory nature of the tagmeme.

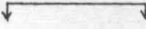
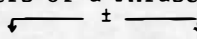
The plus or minus sign, ±, indicates that the tagmeme is optional.

A tagmeme is indicated in the formula by: +Slot[Filler].

Alternate forms of composite fillers which represent different distribution-subclasses are enclosed in angular braces, < >, thus: +Slot< $\begin{smallmatrix} \text{Filler} \\ \text{Filler} \end{smallmatrix} \rangle$. If the attention is being focussed on only one of the distribution-subclass fillers of a Slot, an abbreviated formula such as +Slot<Filler> is used.

Braces { } enclose a composite morpheme-hypermorpheme class of subclass fillers divided on the basis of internal composition, but united as one filler on the basis of the structural unity of its members and their function as members of a unit distribution-subclass.

Parentheses () are used to mark the internal structure of a Phrase; thus: +Phrase(+Filler +Filler).

The arrow  indicates that one of the fillers of a Phrase has been removed to another position. The arrow  indicates that the two fillers are optional, but if one occurs, the other one must occur as well. The arrow  indicates that either of the two fillers occurs but not both in the same time.

The following abbreviations are used:

A - Accompaniment; Act - Active; Adj - Adjective; Adv - Adverb; Aff - Affirmative; Ag - Agent; Ap - Appositive; Art - Article; Aux - Auxiliary; Ax - Axis; B - Benefactor; C - Cause; c - count; Cl - Clause; Co - Complement; Com - Common; Comp - Comparative; Compd - Compound; CompX - Complex; Coord - Coordinate; D - Direct; Db - Double; Decl - Declarative; Def - Definite; Defe - Defective; Del - Delimiter; Dem - Demonstrative; Dep - Dependent; Det - Determiner; Eq - Equational; Equal - Equality; F - Frequency; Fall - Falling; H - Head; I - Instrument; I - Indirect; Imp - Imperative; In - Intonation; Indef - Indefinite; Indet - Indeterminate; Inf - Infinitive; Infer - Inferior; Infor - Information; Intens - Intensifier; Inter - Interrogative; Introd - Introducer; L - Location; M - Manner; m - mass;

Maj - Major; **Mo** - Modal; **Mod** - Modifier; **N** - Noun; **Neg** - Negative; **Nu** - Numeral; **O** - Object; **Ord** - Ordinal; **P** - Purpose; **Part** - Participle; **Pas** - Passive; **Pcle** - Particle; **Pers** - Personal; **Phr** - Phrase; **Pl** or **pl** - Plural; **Pn** - Pronoun; **Pos** - Possessive; **PostMod** - Post-Modifier; **Pr** - Predicate; **Prec** - Preciser; **PreDet** - Pre-Determiner; **Prep** - Preposition; **Prop** - Proper; **Quant** - Quantitative; **Refl** - Reflexive; **Rel** - Relative, Relator; **Resp** - Response; **Result** - Resultative; **S** - Subject; **Sg** - Single; **Sim** - Simple; **sing** - singular; **St** - Stative; **Subjunct** - Subjunctive; **Subst** - Substitute; **Sup** - Superlative; **Supp** - Suppositional; **T** - Time; **t** - tense; **T** - Transform; **Tr** - Transitive; **V** - Verb; **X** - Extra.