

Word Order Typology and Its Implication in Translation

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PREFACE

This research material entitled “Word Order Typology and Its Implication in Translation” is lying in my lap since 2008. I was planning to edit and publish it in book form after my retirement. But after my retirement I have taken up some academic responsibility in Amrita University, Coimbatore. So, I could not find time to fulfil my intention. Now Prof. M.S.Thirumalai lends me a helping hand to publish it in book format in his esteemed e-journal Language in India. He and his journal encourage me to pursue my research activities with a promise of making them public. I am greatly indebted to him.

In linguistics, word order typology is the study of the order of the syntactic constituents of a language, and how different languages employ different orders. Correlations between word orders found in different syntactic sub-domains are also of interest. The word order encompasses the constituent order of a clause, namely the relative order of subject, object, and verb, the order of modifiers (adjectives, numerals, demonstratives, possessives, and adjuncts) in a noun phrase and the order of adverbials. Some languages use relatively fixed word order, often relying on the order of constituents to convey grammatical information. Other languages—often those that convey grammatical information through inflection—allow more flexible word order, which can be used to encode pragmatic information, such as topicalisation or focus. However, even languages with flexible word order have a preferred or basic word order, with other word orders considered "marked".

Word order plays an important role in translation. For example, English word order and Tamil word order are different, and word order often needs to be changed in translation. Word order refers to the order in which components of a sentence are arranged. Machine translation talks about transfer grammar to map source language into target language. Many times, when we try to translate English sentence into Tamil we feel that the translation has to be started from the right and move to left. This is because the most of the times syntactic configuration of a unit or sentence in English is the reverse of syntactic configuration of a unit or sentence in Tamil.

The present research work is not a complete one. Word order typology has to be studied extensively and come out with rules to map one type of word ordered language into another type word ordered language. The transfer grammar rules need to be evolved for human as well as machine translation.

My interest in manual translation and machine translation motivated me to take up this research work. The topic is of great importance and the need of the day.

Rajendran Sankaravelayuthan

ABBREVIATIONS

Accusative	acc\ Acc.
Adjective	Adj\ ADJ
Adjectival Phrase	Adj P
Adverb	Adv\ ADV
Adverbial Phrase	Adv P.
Auxiliary	AUX
Be verb	BV
Complement	COMP
Compound verb	CV
Dative	Dat\ DAT
Determiner	Det\ DET
Demonstrative	Dem\ DEM
Dictionary of English	DEWA
Word Analysis	
Direct object	DO
Finite	F\N
Genitive	gen\GEN
Indirect Object	IO
Intransitive verb	Vi\ VI
Lexical functional Grammar	LFG
Locative	loc\ LOC
Negative	Neg\ NEG
Noun	N
Noun phrase	NP
Number	Num\ NUM

Object	O
Ordinal	Ord
Perfect	perf
Phrase structure Grammar	PSG
Pre-determiner	Pre-Det
Preposition, post position	P
Prepositional\ Post positional Phrase	PP
Person Number-Gender	PNG
Progressive	Prog\ PROG
Pronoun	PN
Plural	PLU
Quantifier	Quan\Q
Relative Participle	RP
Sentence	S
Singular	sing\ SING
Structural and lexical transfer	SALT
Subject (specified in the content itself)	S
Tense	T
Tree Adjoining Grammar	TAG
Verb	V
Verb phrase	VP

TRANSLITERATION

Roman	Tamil
a	அ
aa	ஆ
i	இ
ii	ஈ
u	உ
uu	ஊ
e	எ
ee	ஏ
ai	ஐ
o	ஓ
oo	ஔ
au	ஔள
k	க்
ng	ங்
c	ச்
nj	ஞ்
T	ட்
N	ண்
t	த்
nd	ந்

p	ப்
m	ம்
y	ய்
r	ர்
l	ல்
v	வ்
zh	ழ்
L	ள்
R	ற்
n	ந்

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CHAPTER 1

INTRODUCTION

The study of Word order has a long history. It is Greenberg (1960, 1963) who has initiated serious investigation on the word order typology of languages and listed down his implications. Topologists like Vennman (1974), Keenan (1978), Lehmann (1978). Steele (1975), Comrie (1981), Hawkins (1983), Croft (1990) and others have studied word order typology in the light of language universals. Studying languages from the point of view of word order typology is a practice, which is well known in Linguistics. It has been investigated based on structuralist's as well as transformational generative grammarian's points of view.

Fixing the basic word order of a language as SVO, SOV, VSO etc., and its manifestations in the structure of the language is found to be a useful and necessary investigation. Apart from comparing two languages for their grammatical differences, comparing them from the point of view of word order typology is found to be a very useful investigation. Difference in word order structures of the languages is the manifestation of their configurational structures. Greenberg and his followers have proved that contrastive study of word order typology is very useful.

By its very nature such a study is bound to help translators in making decisions on cross-lingual transfer i.e., translating one language into another. In the advent of machine translation, transfer of source language structure into target language structure has become very crucial. Word order typological comparison comes as a boon for machine translation as it gives clues to make rules to transfer the structure of one language into another. It is in this context the present research work has been under taken.

The aim of this research work is to correlate the word order of English and Tamil from the point of view of word order typology and to explore the avenues to promote translation with the knowledge gained from the output of the comparison of the word orders of the two languages. The traditional perception of word order is based on the description of syntax as sentence grammar, that is, as an arrangement of words in sentences. Word order or the order of sentential constituents is an outcome of interplay of several principles such as grammatical, semantic, textual and contextual.

The ordering of S(ubject), O(bject) and V(erb) gives rise to six logically possible types namely SOV, SVO, VSO, VOS, OVS and OSV; but in every language one can identify the normal

or unmarked order of words. It may be said that the order which is statistically the most frequent one matches the native speaker's intuitive 'feel' for normal word order. Also, languages may be grouped into two categories: those which have a relatively free order like Tamil/Sanskrit and those which have a relatively strict word order like English/Chinese. It is with this background word order typology of English and Tamil has been studied and presented as a research work.

It can be inferred that English as an SVO word order language and Tamil as an SOV word order language show different configurational structures and constitutional arrangements of words, phrases and clauses. This can be represented in terms of transfer rules which can be manipulated for translating English into Tamil and vice versa.

Methodology adopted here is word order typology. Universal typology and language universals have been extensively studied and the word order structures of English and Tamil have been explored in this background. The word order typologies of relative clause, complement clause, and subordination and co-ordination have been thoroughly studied and the marked and unmarked features of English as SVO language and Tamil as an SOV language have been established in this background.

1.1. Earlier and related works

The present study is developed on the foundation made by the previous works. It is difficult to list and elaborate on all the works which precede the present study. Some of the important works which are referred while writing this research work are discussed briefly here.

Contrastive study on English and Tamil is time immemorial. There are plenty of works on comparing and contrasting Tamil and English structures from the point of view pedagogy and translation. There are works which tried only to contrast the structures of the two languages. One such attempt was made by Rangan (1972). His research work on "Contrastive analysis of the grammatical structures of Tamil and English" is a pioneering work. This study presents an overall view of the structures of Tamil and English by applying the transformational grammar methodology. Though there are studies which give the structural differences between Tamil and English at the phonological level, this the first attempt which presents a structural comparison of the two languages at the grammatical level. The purpose of this study is twofold:

- To present a detailed study of Tamil syntax
- To show the grammatical differences in terms of transformational rules.

The author claims that this study will be of use not only for the purposes of language teaching and translation but also for the understanding of grammatical structure of Tamil and language typology.

“A Contrastive Analysis of Tamil and English” has been made by Williams (1973) for his PhD work. “Contrastive Analysis of the Relative clauses in Tamil and English” is another noteworthy PhD thesis written by Ramaswamy (1988). He has approached the problem from point of view of word order typology. The author claims that “From a theoretical perspective, a contrastive analysis of syntactic constructions like relative clauses between Tamil, a SOV language with a relatively flexible word order and English, a SVO language with rigid word order is likely to contribute to the study of linguistic universals as well as evaluation of existing linguistic theories.” The purpose of this theoretical contrastive analysis is, however, to see how Tamil and English relative clauses behave alike or differently in response to different theories of relativization in particular and theories of languages in general in order to validate or invalidate such theories.

Dakshinamoorthy (1983) made a “Contrastive Analysis of complementation in English and Tamil”. This work elaborates on the differences and similarities between English and Tamil in the grammatical process of complementation. Thiagarajan (1981) investigated on the “Model system of English and Tamil” for his PhD work.

“A Contrastive Analysis of English and Tamil to Teach English as a Foreign Language” by Joseph (1984) is an important work from the point of view of contrastive study for language teaching.

Another notable work based on word order typology is Renugadevi’s (1997) work on “Grammatical comparison of English and Tamil – A typological study”. This study on grammatical comparison of Tamil and English is a typology based study which attempts to delineate an overall view of the structural types of Tamil and English and to make a comparative study of them by applying typological principles. Though there are studies which expose the structural differences between Tamil and English at the phonological and morphological levels, this is the first attempt to present a structural comparison of the two languages at the syntactic level.

1.1. Importance of the present work

The present research work is started on the above-mentioned background and proceeds to employ the vistas of word order typology to compare and contrast the word order structures of English and Tamil. This work has taken up only the following clause structures from the point of view of word order typology:

1. Relative Clause
2. Coordination and Subordination
3. Complementation.

As stated earlier, the main objective of this research work is to make use of the output of the study on the contrastive analysis of the word orders of English and Tamil for translation. The correlation of word order typologies of English and Tamil gives clues to prepare a transfer grammar to translate English into Tamil and vice versa.

The work initiated by Greenberg demonstrated that it is possible to come up with significant cross-lingual generalizations by looking at a wide range of languages and without necessarily carrying out abstract analyses of these languages; in addition, there were a number of more specific methodological lessons such as improvements in techniques for language sampling. The knowledge of the differences in the word order structures of English and Tamil helps us to decide on the constitutional structures of these languages while transferring one into another. This study is very useful in framing transfer rules which helps in translating English into Tamil and vice versa.

From a theoretical perspective, a contrastive analysis of word order between English an SVO language with rigid word order, and Tamil, an SOV language with a relatively flexible word order is likely to contribute to the study of linguistic universals as well as evaluation of existing linguistic theories.

It goes without saying that this study is very useful for the understanding of the structures of English and Tamil, and therefore useful from the point of view of pedagogy and translation.

CHAPTER 2

WORD ORDER TYPOLOGY AND LANGUAGE UNIVERSALS

2.0. INTRODUCTION

In linguistics, word order typology is the study of the order of the syntactic constituents of a language, and how different languages can employ different orders. Some languages use relatively restrictive word order, often relying on the order of constituents to convey important grammatical information. Word Order typology has a long history. Starting from Greenberg (1960), many have contributed to the idea. Vennemann (1973), Steele (1975), Keenan (1978), Lehmann (1978), Comrie (1981) Hawkins (1980, 1983), Croft (1990) and others have contributed to the word order typology. This chapter has taken their ideas and viewpoints and discussed them to suit our purpose.

The term typology has a number of different uses, both within linguistics and outside linguistics. The common definition of the term is roughly synonymous with “taxonomy” or “classification”, a classification of the phenomenon under study into types, particularly structural types. This is the definition that is found outside of linguistics, for example in biology, a field that inspired linguistic theory in the 19th century.

The broadest and most unassuming linguistic definition of “typology” refers to a classification of structural types across languages. In this second definition, a language is taken to belong to a single type, and a typology of languages is a definition of the types and an enumeration or classification of the languages into those types. This is considered as typological classification. This definition introduces the basic connotation that “typology” in contemporary linguistics has to do with cross-linguistic comparison of some sort.

A more specific definition of “typology” is that it is the study of linguistic patterns that are found cross-linguistically; in particular, patterns that can be discovered solely by cross linguistic comparison. The classic example of typology under this third definition is the implicational universal. i.e., “if the demonstrative follows the head noun, then the relative clause also follows the head noun”. This universal cannot be discovered or verified by observing only a single language such as English.

Typology is a sub discipline of linguistics - not unlike, say, first language acquisition – with a particular domain of linguistic facts to examine cross linguistic patterns. Typology in this sense

began in earnest with Joseph H Greenberg's discovery of implicational universals of morphology and word order, first presented in 1960 (Greenberg 1966 a).

Typology represents an "approach" to the study of language that contrasts with prior approaches, such as American structuralism and generative grammar. Typology is an approach to linguistic theorizing or more precisely a methodology of linguistic analysis that gives rise to different kinds of linguistic theories than other "approaches". Sometimes this view of typology is called the "Greenbergian", as opposed to the "Chomskyan", approach to linguistic theory. This view of typology is closely allied to functionalism, the hypothesis that linguistic structure should be explained primarily in terms of linguistic function. (The Chomskyan approach is contrastively titled formalism). For this reason, typology in this sense is often called the (functional) typological approach. The functional typological approach became generally recognized in the 1970s and is primarily associated with Talmy Givon, Paul Hopper and Sandra Thompson, though it has well-established historical antecedents (Croft, 1990:2).

The traditional perception of word order typology is based on the description of syntax as sentence grammar that is as arrangement of words in a sentence. Word order typology has played a major role in the recent development of language typology. Although we retain the term word order typology, which has become established for referring to this area of typology, we are concerned not so much with the order of words as with the order of constituents, i.e. it would be more correct to speak of constituent order typology (of Greenberg's term 'the order of meaningful elements').

In saying a given language has subject-verb-object basic word order, it is irrelevant whether the constituents referred to consist of one or more words, so that this characterization applies equally to *John hit Mary* and to *The rogue elephant with the missing tusk attacked the hunter who had just noticed that his rifle was unloaded*. Secondly, in addition to being concerned with the order of constituents that contain one or more words, in the order of morphemes less than a word, for instance in the relative order of affixes and stems.

2.1. Word order parameters

The constituent order of a clause, namely the relative order of subject, object, and verb, the order of modifiers (adjectives, numerals, demonstratives, possessives, and adjuncts) in a noun phrase and the order of adverbials are the primary word orders of focus. Word order parameters have been implemented in the typological study on the constituent order of a clause, namely the relative order

of subject, object, and verb, on the order of modifiers (adjectives, numerals, demonstratives, possessives, and adjuncts) in a noun phrase and on the order of adverbials. The order of constituents of the clause is one of the most important word order typological parameters. In its original form, these parameters characterizes the relative order of subject, verb, and object, giving rise to six logically possible types, namely SOV, VSO, VOS, OVS, OSV, SVO (Comrie, 1981:80).

SOV is the order used by the largest number of distinct languages; languages using it include Korean, Mongolian, Turkish, the Indo-Aryan languages and the Dravidian languages. Some, like Persian, Latin and Quechua, have SOV normal word order but conform less to the general tendencies of other such languages. A sentence glossing as "She bread ate" would be grammatically correct in these languages. SVO languages include English, the Romance languages, Bulgarian, Macedonian, Serbo-Croatian, Chinese and Swahili, among others. "She ate bread" is the correct one in these languages. VSO languages include Classical Arabic, the Insular Celtic languages, and Hawaiian. "Ate she bread" is grammatically correct in these languages. VOS languages include Fijian and Malagasy. "Ate bread she" is grammatically correct in these languages. OVS languages include Hixkaryana. "Bread ate she" is grammatically correct in these languages. OSV languages include Xavante and Warao. "Bread she ate" is grammatically correct in these languages. Sometimes the patterns are more complex: German, Dutch, Afrikaans and Frisian have SOV in subordinates, but V2 word order in main clauses, SVO word order being the most common. Using the guidelines above, the unmarked word order is then SVO. French uses SVO by default, but in the common case where the object is a clitic pronoun, the order is SOV instead. (Wikipedia). The example given below exemplifies the difference between English and Tamil in terms of word order.

1. a. The farmer killed the duckling. (English: SVO)
- b. andta vivacaayi vaattaik konRaan (Tamil: SOV)
- that farmer duckling-acc killed

There are many languages where the criteria of identifying subjects seem to split across two noun phrases, thus making it difficult or impossible to specify the linear order of subject with respect to other constituents. Secondly, the parameter is only applicable to languages in which there is a basic word order determined, at least by the grammatical relations relative to the verb, and there are some languages where this seems not to be the case. When we classify English as being basically SVO, we keep away from the fact that in special questions the word order of wh-element is determined not by its grammatical relation, but rather by a general rule that places such elements sentence initially, thus giving rise to such OSV orders as *Who(m) did John see?* Even in many

languages that are often described as having free word order, there is some good indication that one of the orders is more basic than the others.

A further problem in assigning basic word order is where the language has split i.e. different basic word orders in different constructions. In some instances, this does not lead to undue difficulty in assigning basic word order, where one of the word orders is clearly much more restricted than the other. Thus, the presence of special questions in English where the object precedes the subject does not seriously jeopardize the claim that English is a SVO language, and one can establish a general principle that word order of statements is more basic than that of questions.

In the case of word order within the noun phrases, relative order of adjective (A) and noun (N) is crucial. Here, as with most of the following parameters, there are only two possibilities, for basic order (if there is a basic order), namely AN and NA. AN order is illustrated, for instance, by English: *the green table*. NA order is illustrated by Tamil; e.g., *periya viiTu* 'big house'. It seems to be generally true that languages with the basic word order NA are more tolerant of exceptions of this kind than are languages with the basic word order AN (Greenberg's universal number 19). English examples like *court martial*, *envoy plenipotentiary* are marginal and often not felt synchronically to be sequences of noun and adjective.

Related to adjective-noun order, at least conceptually, is the order of head noun (N) and relative clause (Rel) in the relative clause construction. Again, there are two possible orders: either the head precedes the relative clause as in English or the relative clause precedes the head as in Tamil.

3.a. the apple which that man gave to that woman (English)

b. *andta manitan andta peNN-iRkuk koTu-tt-a aappiL* (Tamil)

that man that woman_DAT give_PAS_RPM apple

Although adjectives and relative clauses are similar conceptually, and indeed hard to separate from one another in some languages, in many languages they differ in word order; English is AN but N Rel, for instance. In English, moreover, many heavy adjectival phrases have the same order as relative clauses, as in *people fluent in three languages*. This suggests that in characterizing languages as AN or NA, preference should be given to the order of simple adjectives rather than to that of more complex adjectival phrases.

Completing our list of constituents of the noun phrase is the relative order of possessive (genitive) (G) and head noun (N), again gives two possible orders: GN and NG. Although we have not always illustrated problems caused by conflicting word orders within the noun phrase, we may do so here in discussing the characterization of English, which has two possessive constructions:

(i) the prenominal Saxon genitive

4. the man's hat

(ii) the postnominal Norman genitive

5. the roof of the house.

Although the Norman genitive is, textually, the more frequent of the two, and has become more frequent over the historical development of English, it is far from clear, for the modern language, whether one can specify that one of these two constructions is the basic order of head noun and possessive in English.

The last among the major word order parameters to be examined here is whether a language has prepositions (Pr), such as English *in the house*. The terminology of traditional grammar, though providing the two terms preposition and postposition, does not provide a single term to cover both of these, irrespective of order and recent typological work has filled this gap by coining the term 'adposition'. Most languages clearly have either prepositions or postpositions, though there may be occasional exceptions; however, there are also languages which are more mixed. Most Australian languages have neither prepositions nor postpositions.

Other parameters discussed by Greenberg are the following (Comrie, 1981:85)

- First, whether auxiliary verbs typically precede the main verb (as in English *will go*).
- Secondly, whether in comparative constructions, the standard of comparison precedes the comparative or follows it.
- Finally, we may distinguish between languages which are overwhelmingly suffixing as opposed to those which are overwhelmingly prefixing; while there are few good examples of the latter type, and few where a large number of prefixes can be added to a given stem, there are some languages with long sequences of suffixes but virtually no prefixes.

2.2. Correlations among word order parameters

Most of the parameters are logically independent of another. For instance, there is no a priori expectation that the presence of SOV basic word order in a language should correlate more or less well with the presence of AN rather than NA word order. Even in those instances where one might expect, a priori, there to be some correlations, as between AN order and Rel N order (these are different kinds of attributive constructions), there are sufficient languages that do not have this correlation – such as English, with AN but N Rel – to demonstrate that the correlation is far from necessary. Despite this, it turns out to be the case that there are many statistically significant correlations that can be drawn among these various parameters, and it is one of Greenberg’s more specific merits, in addition to initiating general interest in this approach to language typology to have established so many of these correlations (Comrie, 1981: 86).

2.2.1 Greenberg’s Correlations

The universals listed by Greenberg contain both absolute universals and tendencies, both non-implicational and implicational universals (1981:86). Throughout, Greenberg’s statements are very careful and cautious, based meticulously on his sample of languages and other languages from which he had relevant data. For instance, in the first universal, ‘in declarative sentences with nominal subject and object, the dominant order is almost always one in which the subject precedes the object,’ the statement is as a (strong) tendency, rather than as an absolute.

Another instance of Greenberg’s care, especially in contrast to much later work, can be seen in the fact that he consistently avoids generalizing unilateral implications to bilateral implications, where the material does not justify doing so. Thus, despite universal 27 ‘If a language is exclusively suffixing, it is postpositional: if it is exclusively prefixing, it is prepositional,’ there is no corresponding universal that would say ‘if a language is postpositional, then it is suffixing; if a language is prepositional, it is prefixing.’

Thirdly, Greenberg does not take any one single parameter as being the basic determiner of word order typology, and again this caution is amply justified by the nature of the data. Thus, word order in the clause is a good predictor of adposition order, at least for VSO languages and for SOV languages. However, it turns out that it is the order of adposition and noun that provides the best predictor for that of genitives, as per universal 2. ‘In languages with prepositions, the genitive almost always follows the governing noun, while in languages with postpositions it almost always precedes’.

Fourthly, many of the correlations are stated, where required by the data, not as holistic correlations across all parameters or as simple correlations involving only two of the parameters, but as complex correlations involving conditions among several parameters, as in universal 5, which correlates certain instances of clause order, genitive order, and adjective order, ‘If a language has dominant SOV order and the genitive follows the governing noun, then the adjective likewise follows the noun’. Perhaps the most extreme example of such a complex condition is universal 24: “If the relative expression precedes the noun either as the only construction or as an alternative construction, either the language is postpositional, or the adjective precedes the noun or both.” (Comrie, 1981:87)

2.2.2. Generalizations of Greenberg’s Results

Greenberg lists 24 logically possible types of language, based on the combinations of the four parameters (Comrie, 1981:89).

VSO/SVO/SOV,Pr/Po, NG/GN, NA/AN;

Of these 24, 15 are actually attested in his sample or in other languages used by him in this piece of work. However, it is noticeable that the distribution of languages among those fifteen attested types is far from even. In fact, four types each contain far more languages than does any of the other eleven, as follows (Comrie, 1981:89).

- | | | |
|--|---|------|
| (a) VSO / pr / NG / NA (Comrie, 1981:89) | } | (12) |
| (b) SVO / pr/NG/ NA | | |
| (c) SOV / po / GN / AN | | |
| (d) SOV / po / GN / NA | | |

On the basis of this observation, one might think that in order to establish universal tendencies, rather than absolute universals, of word order typology, it would be possible to work with just these types, neglecting the relatively few languages that fall into the other eleven attested types. If one makes this assumption, then a number of other generalizations seem to emerge from the four types listed above (Comrie, 1981:89).

- First, except for the position of the subject in clause order, types (a) and (b) are identical. If one were to omit the subject from consideration, then types (a). and (b) could be combined into a single VO type; types (c) and (d) would then both be characterized as OV.
- Secondly, on most parameters, types (a) and (b) are precisely the inverse of types (c) and (d); the former are VO, Pr, NG, and NA; the latter are OV, Po, GN and either AN or NA, the only embarrassment to this generalization being the widespread occurrence of NA basic order in OV languages. However, since we are working with tendencies, we might be prepared to overlook this complication, and work with only two major types in terms of word order, (e) and (f):

(e) VO, Pr, NG, NA

(f) OV, Po, GN, AN

The kinds of generalization of Greenberg's results are associated tend to correlate with this distinction into two types: type (f) tends also to have prenominal relative clauses, a strong tendency towards suffixing, auxiliary verbs after the main verb, and the standard of comparison before the comparative; while type (e) tends to have postnominal relative clauses, a some tendency towards prefixing, auxiliary verbs before the main verb, and the standard of comparison after the Comparative. The kinds of generalization of Greenberg's results are associated with two linguists in particular, Lehmann and Vennemann. Lehmann argues, first, that the order of subject is irrelevant from a general typological viewpoint, so that we may indeed work with two major types of language, OV and VO.

In Particular, while the existence of verb-initial word order or of SOV word order seems to correlate highly with various other typological parameters of word order, the existence of SVO word order does not seem to correlate particularly well with any other parameter; knowing that a language is SOV, we can with considerable reliability predict its other word order parameter values; knowing that a language is SVO, we can predict virtually nothing else.

Lehmann (1978) also proposes a formal explanation or rather generalization, of the observed correlations. He argues that V and O are primary concomitants of each other, and that modifiers are placed on the opposite side of a constituent from its primary concomitant. Thus in a VO Language, the primary concomitant of V is the 'Post verbal O, so modifiers of V (in particular auxiliary verbs) go to the left of V (AUX V); likewise, V is the primary concomitant of O, so modifiers of O. (in

particular, adjectives, relative clauses and possessives) go to the opposite side from V, namely to the right. Conversely, in an OV language: the primary concomitant of V is the O to the right. Conversely, in an OV language; the primary concomitant of V is the O to the left, so other modifiers follow the V (e.g. V Aux); the primary concomitant of O is V, to the right, so other modifiers of O go to the left i.e. adjectives, relative clauses and possessors precede the object noun.

Apart from problems stemming from generalizing Greenberg's universals, there are two other specific problems in this explanation. First, the explanation for order within the noun phrase applies strictly only to object noun phrases and does not generalize directly to subjects or noun phrases in adverbials. One could presumably argue that the order is generalized from objects to other noun phrases. But if this were so one might expect to find languages where the order of constituents within the noun phrase was different for objects and other noun phrases and such instances are either non-existent or rare.

Secondly, the explanation, as is clear from Lehman's exemplification, makes no distinction between modifiers which are expressed as separate words and those which are expressed as affixes; with regard to modifiers of verbal, this creates few problems, as there is a high correlation between having the auxiliary after the verb and having suffixes and between having the auxiliary before the verb and having prefixes.

Vennemann argues that in each of the construction types under consideration. I.e. the relation between verb and object, between noun and adjective, etc., one of the constituents is an operator and the other the operand (Corresponding to the traditional term, the structuralist's term is adjunct or modifier of head), the assignment being as in the following table (Comrie 1981: 91).

OPERATOR	OPERAND
Object	Verb
Adjective	Noun
Genitive	Noun
Relative Clause	Noun
Noun Phrase	Adposition

Standard of Comparison in Comparative Adjective

The assignment of operator (adjunct) and operand (head) status is in most instances uncontroversial, though some linguists have been less comfortable with declaring the head of an adpositional phrase to be the adposition, rather than the noun (phrase). However, this assignment can be ‘justified, for many languages, by the usual structuralism syntactic test of substitution: In English for instance, the prepositional phrase of *John is in the house* can be substituted by *in* but not *by* the house, cf. *John is in* but not, as a similar construction. *John is the house* and the traditional term prepositional phrase attests to the view that the preposition is the head (just as the noun is head of a noun phrase, the verb of a verb phrase). For present purposes, at any rate, we may assume this assignment of operator and operand to individual constructions, bearing in mind that these assignments have been made by other linguistics working independently of the particular correlations that Vennemann wishes to establish.

We can now profitably contrast this position or more specifically Vennemann’s with Greenberg’s work. Vennemann (1972, 1974) presents us with a schema that is conceptually very simple and very elegant however, in order to establish this schema; certain liberties have to be taken with the data. Greenberg’s approach, on the other hand, is truer to the data, but ends up rather with a series of specific universals that do not fit together as a coherent conceptual whole.

2.3. The Value of Word Order Typology

One of the main roles of word order typology in the recent study of language universals and typology has been methodological – historical: the work originated by Greenberg demonstrated that it is possible to come up with significant cross-linguistic generalizations by looking at a wide range of languages and without necessarily carrying out abstract analyses of these languages; in addition, there were a number of more specific methodological lessons, such as improvements in techniques for language sampling.

However, the question does arise as to just how far- reaching word order typology is in terms of the over-all typology of a language. In Greenberg’s original work, relatively few correlations between word order and other parameters were drawn. In Vennemann’s work, essentially no further correlations are drawn and as we have seen even the elegance of Vennemann’s account of over-all word order typology is in certain respects questionable.

Hawkins’s work (1979, 1980) demonstrates that if word order typology is to be rigorous, then it must forsake the extreme elegance of Lehmann’s or Vennemann’s schemata. At present, the

main proponent of word order typology as the basis of a holistic typology is Lehmann, but it has to be acknowledged that, in addition to qualms about the degree of generalization made in his account of word order itself, most of the detailed correlations between word order and other phenomena, including even phonology, remain in need of establishment on the basis of data from a wide range of languages.

2.4. Deeper explanations for word order universals

Implicational universals first reached a wide linguistic audience in Joseph Greenberg's influential paper, "some universals of grammar with particular reference to the order meaningful elements" (Greenberg 1966a), first presented in 1961. Greenberg enumerated forty-five universals based on a thirty-language sample and on informal observations of a much larger number of languages. Only the first twenty-eight universals dealt with word order; the remaining seventeen dealt with inflectional categories. Greenberg's word order universals were incorporated in much linguistic work and considerable effort has been expended to try to explain the universals. If one examines all of Greenberg's universals that refer to adjective noun order, a striking pattern emerges (Croft, 1990:54):

(SOV & GN) > NA Universal 5
 VSO \supset NA Universal 17
 N Dem \supset NA
 N Num = NA (both derivable from universal 18)

In all of the implicational universals involving adjective-noun order, one finds the order noun adjective in the implicatum of the universal. If the contrapositive of these universals were taken, they would all have the order adjective-noun in the implicants; (1990:54).

AN \supset (SVO & GN)
 AN \supset VSO
 AN \supset Dem N
 AN \supset Num N.

The generalization that covers these universals is "All implicational universals whose implicatum involves the order of noun and adjective will have the order NA as the implicatum". (with a complementary statement for the contrapositives following logically).

Greenberg called this as pattern dominance: the dominant order was the one that always occurred in the implicatum. To say some word order P is dominant is to say that implicational universals involving P will be of the form $X \supset P$ (or the contra positive $P \supset X$) and never of the form $X \supset P$ (or $P \supset X$). Intuitively, the dominant order can be thought of as the preferred order of elements, other things being equal.

Dominance can be read directly from a tetrachoric table. Consider the table for $A N \supset Dem N$ (Croft, 1990:54)

	Dem N	N Dem
NA	X	`X
AN	X	--

The dominant order is the order that occurs with either possible order of the cross-cutting parameter. Thus, NA is dominant because it occurs with either DemN or N Dem, whereas AN can occur with Dem N only. Likewise, Dem N is dominant. The orders that are not dominant, AN and N Dem, are called recessive by Greenberg.

The other pattern that Greenberg discovered in his universals is harmony; this pattern is also derivable directly from the tetrachoric table, though it is less obviously manifested in the implicational universal. A word order on one parameter is harmonic with an order on the cross-cutting parameter if it occurs only with that other order. In the preceding example, AN is harmonic with Dem N and N Dem is harmonic with NA. Harmony defined in this way; is not reversible: Dem N is not harmonic with AN because it also occurs with NA and NA is not harmonic with N Dem because it also occurs with Dem N. Harmony is always defined with respect to the recessive orders: The recessive order is harmonic with the order that occurs with it, and not the other way around.

Harmony is only reversible in a tetrachoric table with two gaps, expressible by a logical equivalence, such as is the case with genitive-noun order and adposition-noun order (croft, 1990:55).

	NG	GN
Prep	X	--
Post p	--	X

In this example of a logical equivalence, Prep is harmonic with NG and vice versa, and Postp is harmonic with GN and vice versa. Also, in a logical equivalence there is no dominant order, since each word order type occurs with only one word order type on the other parameter.

From the implicational universals discovered by Greenberg and later researchers, dominant orders and two major harmony patterns have been found. The first column lists the dominant pattern for each word order. The second and third columns list word orders that are harmonic with each other. The first harmonic pattern is often called the *OV pattern*, based on the order of nominal object and verb, and the second is often called the *VO pattern*.

Greenberg's analysis illustrates the next step in a typological analysis; whereas an implicational universal describes a relationship between just two parameters, concepts like dominance and harmony describe a relationship between large numbers of parameters in a single stroke. The concept of dominance, for example defines a relationship between a particular word order type and any other parameter that is involved with it. Many of these deeper and deeper and broader typological concepts can be recast in terms of a generalization over implicational universals. In some cases, however, they cannot be described in terms of implicational universals very easily. However, they can of course be directly read off tetrachoric tables or other descriptive representations of the distribution of attested language types. As more of these broader concepts have been discovered and employed, they have replaced the implicational universals as typological generalizations.

Greenberg considers both dominance and harmony to operate in explaining word order patterns. He proposes the following generalizations: "A dominant order may always occur, but its opposite, the recessive, occurs only when a harmonic construction is likewise present". (Greenberg 1966a: 97).

The concluding section of Greenberg's original word order paper is devoted in large part using the interaction of dominance and harmony to explain some subtle and apparently inconsistent word order patterns. For example, the logical equivalences preposition = NG and postposition = GN have some exceptions: there exist languages with prepositions and genitive-noun order and languages with postpositions with noun-genitive order. However, in almost all of the languages in which the genitive-noun order is disharmonic with the adposition order, the genitive-noun order is harmonic with the adjective noun order, which suggests that the genitive-noun order is influenced by the adjective noun order.

Greenberg's analysis is one of the earliest examples of an important type of explanation of cross-linguistic variation, the concept of competing motivations. Competing-motivations models describe the interaction of universal typological principles in order to account for the existence of variation in language types. In a competing motivations model, no one language type is optimal because the different principles governing the existence of language type are in conflict. In Greenberg's word order analysis, dominance favours some word orders, such as NA absolutely while harmony will favour an alignment of adjective with other modifiers. Since for some modifier-noun order is dominant, and for others, noun-modifier order is dominant, a language cannot be harmonic without having some recessive orders. However, an order cannot be both recessive and disharmonic at the same time. This is the interaction between dominance and harmony that Greenberg described with his principle and which accounts in a single stroke for the unattested types in the tetrachoric tables for word order types. The general principle behind competing-motivation analysis is attested types must be motivated by at least one general principle: the more motivated a language type is, the more frequently it will occur; and unmotivated language types should be unattested or at most extremely rare and unstable. The value in competing-motivation models for typology is that they can account for both variation in language types and also frequency of language types across the world.

Word order topologists immediately after Greenberg focused almost exclusively on harmony. The two harmonic types were named "OV" and "VO" after the declarative clause order type. Harmonic patterns were treated as reversible: AN, Dem N and Num N were harmonic with each other regardless of whether the order was recessive. The major drawback of this approach is that it is empirically less adequate than Greenberg's original formulation. Although many languages fit one or the other of the two harmonic types, many other languages do not, having instead one or more, dominant word order that is disharmonic with the overall pattern of the language. Harmony is only one half of the picture.

The most important word order work since Greenberg is that of John Hawkins (Hawkins 1980, 1983). Hawkins used a sample of over 300 languages and thus brought in a much greater range of data, especially data for the various noun modifiers (demonstrative, numeral, adjective, genitive and relative clause). Hawkins introduces two competing motivations for noun-modifier order, similar to Greenberg's concept of dominance. The first concept is heaviness (Hawkins 1983:90). Certain types of modifiers tend to be larger grammatical units, in terms of number of syllables, number of words and syntactic constituency (relative clauses vs genitive phrases vs single- word demonstratives and numerals), and could be ranked in order of heaviness as follows:

$\text{Rel} \subset \text{Gen} \subset \text{Adj} \subset (\text{Dem}, \text{Num})$

Hawkins (1980, 1983) interprets this as a preference for heavier modifiers to follow the head noun and lighter modifiers to precede. This concept resembles Greenberg's concept of dominance in its effect of complementing harmony: heavier modifiers follow the noun even if the harmonic order is modifier-noun and lighter modifiers precede the noun even if the harmonic order is noun-modifier. Since demonstrative and numeral are lighter and adjective and relative clauses are heavier, they correspond roughly to Greenberg's dominant order Dem N, Num N, NA and N Rel.

Hawkins also introduces the concept of mobility to account for a number of exceptions in which neither harmony nor heaviness could be the operating factors (Hawkins 1983:92-4). The notion of mobility is that certain modifiers are more variable in their word order within single language, and so are more likely to switch from a harmonic order to a disharmonic one. Specifically, Dem Num and Adj are more mobile than Gen and Rel.

Hawkins uses this principle to explain why some "lighter" modifiers such as Dem, Num, and Adj are found to follow the head noun while "heavier" modifiers such as Rel precede. The assumption here is that the original harmonic order was modifier head, including Rel N and Adj N, but historically the adjective shifted to NA order while the relative clauses did not. Thus, the mobility principle unlike the heaviness principle has an essentially diachronic dimension to it, as Hawkins note, "we are in effect claiming that constraints on diachronic are an important part of the explanation for synchronic universals. We will encounter mobility again in the guise of stability" (Hawkins 1983:108).

Hawkins heaviness principle, if it is indeed equivalent to Greenberg's dominance, can be thought of as an explanation of dominance. The dominant order is that which places the lighter element before the heavier element. This explanation actually represents a putative relationship between one grammatical parameter word order, taken in general and another, independent grammatical parameter—the length (in phonological and syntactic terms) of the grammatical element. This relationship has a plausible and well supported functional explanation: order of constraints reflects ranking in size for processing seasons.

Hawkins proposed his heaviness principle only for noun modifiers whereas Greenberg's concept of dominance applied to word order in general (and possibly to implicational universals in general). It is worth examining the dominant orders other than those for noun modifiers to see if the

heaviness explanation is at least a plausible one. There is some limited evidence (universal 24) that prepositions are dominant over postpositions. This is quite reasonable from the heaviness principle as adpositions are generally smaller constituents than the noun phrases they govern. In the case of object verb- order, it seems likely that objects are heavier than verbs when they are full noun phrases, but not when they are pronouns. Greenberg has a universal, 25, which states that if the nominal object precedes the verb, then the pronominal objects is before the verb, but the dominant order for nominal objects is to follow. This suggests that heaviness is a major factor in determining object position typologically, since pronouns are also smaller than full noun phrases.

The dominant subject-verb order may also be accounted for by heaviness. Recent text studies have demonstrated that across languages subjects, especially transitive subjects, tend to be pronominal and nominal subjects when they occur tend to follow the verb cross—linguistically (Dubois 1985, 1987, Lambrecht 1987). Thus, with subjects as well heaviness may be contributing factor to the dominant word order, though Dubois and Lambrecht emphasize iconic principles of information flow. Iconic principles may also be involved in the unequivocal dominance of subject-object order and antecedent-consequent order in conditionals

Hypotheses have been proposed to account for harmony. Greenberg suggests that harmony represented an analogical relationship between the harmonic orders, placing all of the modifiers on one side of the head. This account held for nominal modifiers, but it remains to include the ad position and declarative clause patterns. Greenberg suggests an analogy between genitive constructions and ad positional constructions, for example between “*the inside of the house*” (NG) and “*inside the house*” (prep). Greenberg also proposes an analogy between the ordinary genitive and the subjective objective genitives, that is, the genitive of subjects and objects nominalized verbs, so that the following analogy holds: genitive is to noun (“*John’s house*”) as subject and object (genitive) is to (nominalized) verb (“*Germany’s conquest of Europe*”, Greenberg 1966 a: 99). These analogies account for the harmony of SV/ OV/ Post P/ GN and VS/ VO/ Prep/ NG, which otherwise appear to be a rather mixed of word orders. (Croft 1990:590).

Greenberg’s hypotheses also have diachronic importance, since adpositions frequently evolve from genitive constructions and finite declarative clause constructions also commonly evolve from nominalizations with genitive arguments. This can be observed directly in many languages, in which the genitive and adpositional constructions and/ or the genitive and declarative constructions are similar and identical. Greenberg cites Berber as a language in which the genitive form of the noun is

same as the subject form (provided the subject immediately follows); thus the VS construction is very close to the NG construction (Greenberg 1966 a: 99). In many languages, the genitive form of the noun is identical with the subject form (especially transitive: Allen 1964) and \ or the object form. In many more languages, the adposition construction is transparently a genitive construction, with the adposition the head.

The explanations for harmony based on analogical head-modifier relations are more successful than the various attempts to account for the harmonic patterns in semantic terms, since the variety of semantic relations that hold between harmonic types is too great to subsume under a single semantic generalization. (E.g. verb and object, adposition and noun, adjective and noun, adverb and adjective). Moreover, evidence that the same construction is used for the more diverse word order types or the historical source for those word order types, strongly suggests that the head-modifier analysis is essentially correct at same level of explanation (Hawkins 1983: 93-8).

The examination of morphosyntactic constructions and word order can also account for anomalous word order patterns. Word order is particularly variable at the clause level and somewhat less so at the phrase level (in fact, one could propose the generalization that the lower the morphosyntactic level, the more rigid the word order).

Of course, word order is never entirely free, and constraints on the variation can be found. Several of Greenberg's original word order universals refer to flexibility (or inflexibility) of word order. Universal 6 states that all VSO languages have at least SVO as an alternative order, while universals 7, 13 and 15 state that in SOV languages with at most OSV as an alternative order (the rigid SOV type) then neither adverbial modifiers of the verb nor subordinate verbal forms can follow the main verb. The most thorough study of word order variation in the declarative clause is Steele 1978. Steele discovered that certain alternative word orders were more likely to be found than others. In particular, VSO and SOV are most likely to have VOS and OSV respectively as alternative word orders. In other words, the most likely alternative orders kept the verb in the same position and reversed the position of subject and object SVO was also a very common alternative order to both VSO (universal 6) and SOV (this is the non-rigid SOV type). The phenomenon can be accounted for by the dominance of SV and VO orders. Non rigid VSO languages allow subjects to shift to their dominant position. Languages with basic SVO order are the least likely to have alternative word order: i.e. they are the Languages type that is most likely to have rigid declarative clause word order.

More detailed investigation of actual texts in many languages has revealed that word order is more flexible in more languages than was previously imagined. Close attention has been paid to “Free word order languages” by which is meant, “purely discourse determined “clause constituent order and sometimes also free noun phrase constituent order. (Hale 1983; Heath 1986; Mlithun 1987; D.Payne 1987). The study of typological patterns of word order variation is a relatively new area and will turn out to increasingly important in typological word order research.

The concept of an implicational universal has had its greatest impact in the area of word order. Although broader theoretical concepts have been invoked to account for typological patterns of word order, implicational universals still remain a basic unit of typological analysis. Implicational universals of word order illustrate the basic elements of the typological method in their simplest form. The first step is the enumeration of logically possible language types by the structural parameters involved, illustrated by the tetrachoric table. The second step is the discovery of the empirical distribution of attested and unattested types, illustrated by the pattern of gaps in a tetrachoric (or larger) table. The third step is developing a generalization that (1) restricts variation in language types while excluding the unattested types and (2) reveals a relationship between otherwise logically independent grammatical parameters—in this case the implicational relationship. At this point, typologists from Greenberg onward have observed more far-reaching relationships between the word order parameters, such as harmony and dominance, and then could be captured by simple implicational universals. The final step in the analysis is to seek a deeper (possibly external) explanation for the relationship, such as heaviness, mobility and the various proposals for explaining the existence of harmony.

2.5. Methodological problems

Recently it has become popular to compare the relevant case markings in terms of three entities: S1 (intransitive subject), A (transitive subject) and O (object) (Dixon, 1972). Mallison and Blake (1981) discuss this issue in details. The following observations are made by them.

2.5.1 Subject

The subject in European languages embraces S1 and A and is manifested by such features as case marking, agreement and word order as well as by the part it plays in some syntactic relationships. Greenberg assumes all languages have subject-predicate construction and he indicates that if formal criteria equate certain phenomena across languages, one accepts the equation only

between entities that are semantically comparable. Greenberg would not accept a formally defined subject that embraced S1 and A in an accusative language and S1 and O in an ergative language.

We assume he takes S1/A to be the subject since he lists Loritja as SOV. 'Loritja' is a term used by the Aranda of central Australia for the Kukatja who speaks an ergative language in which the predominant word order is agent-patient-verb. Pullum 1977 discusses word order universals in terms of S, O and for him S is S1 / A. He adopts a Relational Grammar framework in which S1/A is initial or underlying Subject in all languages.

Ullian 1978 classifies 79 languages in terms of the order of S, O and V. He does not discuss the criteria used to establish S but from his classification of ergative languages like Tongan and Western Desert (Australian) we can see that S is equated with S1/A. Steele (1978; 590) classifies 63 languages in terms of SVO, SOV, etc. She states that for languages with which she was familiar, she took subject and object to 'correspond roughly to English'. With unfamiliar languages she took the decision of the linguist responsible for the description she used. She claims that Keenan's work has made clear that, although subject is used by linguists regularly, and with confidence, a precise characterization of the notion eludes us: The fact that linguists use the term regularly and with confidence seems to us to reflect two facts. One is that S1 and A are identified exclusively in the vast majority of languages. The other is that many linguists simply base their notion of subject on translation equivalence. If they assign the notion of subject with confidence, it is often only because they have not thought of using formal criteria.

One could in theory compare word order across languages in terms of a formally defined subject. The properties that identify subjects seem to be topic based and one might see word order in terms of topic/comment. This would seem satisfactory if the formally designed subject behaved consistently i.e. always occurred first in the clause irrespective of whether subject embraced S1\A, S1\O or made no exclusive identification of any participant in a transitive clause with S1, as is the case in Philippines languages. If semantically different subjects behaved differently according to their semantic type, then one could simply treat various types of subject separately.

If one compares basic word orders in terms of a semantically determined subject (s1/A), as is usually the case, then one could justify the procedure if S1/ A behaves consistently irrespective of formal criteria. If S1\A tends to behave differently in ergative languages, from the way it does in accusative languages, then one could treat the ergative A separately. In other words, whether one starts out with a formally defined subject or a semantically defined one will finish up with the same

result providing one checks variation in the ‘formal survey’ against semantics and variation in the ‘semantics survey’ against ‘formal differences’.

Ergative languages and other types in which S1d/A are not formally identified makeup only a small proportion of the world’s languages, so no matter how they are treated will not affect generalization about word order to any great degree. Practically, every ergative language A precedes O.

All the surveys of word order have shown that the semantically defined subject precedes the object in almost all languages. This means that ergative languages will not disturb a sample based on a semantically determined S1/A subject and will appear to justify the use of an S1/A subject. However, it could be that the ergative languages in fact support the generalization that A precedes O, rather than supporting the notion that S regularly precedes O.

2.5.2. Object

Most linguists seem to assume without question that all languages have object is always semantically patient, then it should be treated as a semantic entity along with instrument, location, etc. If one defines patient very broadly as the entity affected, effected, moved, etc., it might be passable to obviate the need for object in a large number of languages.

Dik (1978; 177) raises the possibility of explaining away apparent exceptions to the generalization that S always precedes O by reinterpreting O in some languages as patient. Although we believe that all claims about the existence of grammatical relations should be re-examined to see if in fact only semantic relations are involved, we do not see that a distinction between a semantic patient and a syntactic O is patient of any importance in studies of word order.

2.5.3. Indirect object

English has the following two constructions to express the same prepositional content.

8. Charles gave a bottle of Benedictine to the Alderman.
9. Charles gave the Alderman a bottle of Benedictine.

If only the first construction existed, the label ‘indirect object’ would not be needed; *to the Alderman* is simply a prepositional phrase like any other. In the second construction, however, the phrase the

Alderman exhibits two object properties but contrasts systematically with the patient *a bottle of Benedictine*.

The two properties are (a) a position following the verb without properties preceding and (b) Correspondence with the subject of a passive equivalent as in the following sentence (10).

10. The Alderman was given a bottle of Benedictine by John.

Here they do not apply the label of indirect object to the grammatical equivalence of *the Alderman*. *The Alderman* rightly deserves a special label to distinguish it from the normal type of direct object and 'indirect object' is an accepted label. However, many linguists use the term semantically and apply it to the transnational equivalents of the Alderman in the following sentence (11).

11. John gave the Alderman a bottle of Benedictine

Irrespective of whether the phrase in question is grammatically parallel to the Alderman in the above last example (9) or whether it parallel to the Alderman in the above example (8).

2.5.4. Variant word orders

Where there is variation in word order, we can attempt to determine whether one order is basic. English exhibits a variety of word orders, but no one doubts that SVO is the basic or unmarked one. A pattern such as the following is highly marked (Mallinson and Blake, 1981: 125).

The proposals contained in section one of the bill we support; those in sections two and three and those in the sections two and three and those in the appendix to section four we cannot support in any shape or form whatsoever.

This OSV pattern can be used to topicalize the object or to focus it.

When we use the term 'basic word order' we mean the order that obtains in stylistically-neutral, independent, indicative clauses with full noun phrase participants for S1 or for A and O. English is of course easy to be classified as SVO. However, a problem arises when the principle of arranging the words in a sentence is allowed to be more responsive to the demands of topicalization and focus than is the case in modern English. In old English, there appears to have been much more freedom in word order

Old English is a language that exhibits a good deal of freedom of word order and a tendency for AdVS patterns. The order used for a stylistically unmarked sentence such as *John saw Mary* is almost certainly SVO. We would classify old English as SVO/Free. (It means free at the referential level. It does not imply that the use of one order rather than use of one order rather than another is of no significance.) The order used for a stylistically unmarked version of *john saw Mary* in German would be SVO too, but to simply call German an SVO language would disguise the verb-second nature of its word order.

2.6. Factors Determining word order

2.6.1. The Basic principles

Word order can be accounted for in terms of three general principles. (Mallison and Blake 1981: 151):

- a. More topical material tends to come nearer to the beginning of the clause (to the left) than non-topical material.
- b. Heavy material tends to come nearer to the end of the clause (to the right) than light material.
- c. Constituents tend to assume a fixed position in the clause according to their grammatical or semantic relation or category status (noun, verb, prepositional phrase, etc.)

We use topic in the sense of what is being talked about and comments in the sense of what is being said about the topic. Typically, one thinks in terms of there being only one topic, if any in a clause, but we feel that the constituents of a clause can exhibit degrees of ‘topic-ness’. By heavy material we mean internally complex material. A noun phrase that consists of two co-coordinated noun phrases (*the boy and the girl*) is heavier than a simple noun phrase (*the children*). A noun phrase with the phrasal complement (*the girl on the magazine cover*) or a clausal complement (*the girl who was featured in the centrefold of the financial review*) is heavier than a simple noun phrase (*the girl*).

Principles (a) and (b) are not unrelated. A topic is normally given either by the preceding linguistic context or the wider context situation of situation. It is typically a pronoun or a simple noun phrase. Complements to heads of noun phrases typically occur with material that is part of the comment, part of what is being presented as new. We use the term focus for any part of an utterance that is emphasized. As with topic it seems common to think in terms of a clause having a single focus, but there can be more than one point of focus or degree of focus. A point of focus can be

marked by stress and presumably this is true in any language; it can be indicated by an affix or adposition, and it can be marked by placing the focused word or phrase at the beginning of a clause. This last possibility may be universal. We do not know of a language that does not allow an item to be fronted, though the most usual function for fronting is topicalization.

The practice of putting focused material to the left might seem to run counter to the topic-to-the left principle. The focus is normally part of the comment and could be expected to come late in the clause. There is in fact some conflict here and it is the operation of these partly conflicting tendencies that lies behind a lot of the apparent freedom of free word order languages. The conflict is only partial, however, since a constituent may be both topic and a point of focus. This will be true, for instance, where two topics are contrasted as in the following exchange.

How're the kids to today?

Well, Tommy's o.k. But Susie's got the flu.

Presumably *Tommy* and *Susie* are topics since the answer to A's question is about *Tommy* and *Susie*, but *Tommy* and *Susie* are contrasted foci. The phrases *O.K* and *the flu* are also foci.

Languages differ in the extent which they use word order variation in preference to, or as well as, stress to signal focus. In English, if we answer the door and encounter an unexpected guest, *Mary* we are likely to announce her arrival to the other members of the household by saying *Mary's here*. In fact, we would retain the stress on *Mary* even if she were an expected guest provided there were no special circumstances leading to the presupposition that she was elsewhere.

The topic-to-the left principle can be used to explain, at least in a weak sense, the preponderance of SO orders in language. SO orders (VSO, SVO, SOV) account for 85% of the languages in the sample and S usually precedes O in the languages we classified under 'other'.

For the purposes of our survey, we took S to be S1/A but, since most languages have an accusative morpho-syntactic system in which A is the unmarked choice for grammatical subject with a transitive verb, our figures effectively tends to precede O. In accusative languages, subject is typically topic and indeed, the grammatical properties that link S1 and A in an accusative language seems to be topic-based. Subjects are like proposed topics in that they appear to the left and in that

they do not carry any semantic marking, usually in fact appearing in the citation form Subject agreement too seems to be to topic-based.

Givon (1976:155) gives the following schematic presentation to demonstrate how subject agreement is likely to have developed diachronically from a sequence of preposed topic and presumptive pronoun.

The man, he came → The man he-came
Topic PRO SUBJECT AG

Ergative languages are interesting with regard to the topic-to-the-left principle. In an ergative language S1 and O share the same grammatical properties that unite S1 and A in an accusative language. According to the topic-to-the left principle we should expect to find the absolutive in a topic position i.e. we should expect to find VOA and OAV and OVA among ergative languages.

Some ergative languages are only superficially ergative in the sense that there is no reflection of an opposition between A and S1/O in the syntax. One could perhaps dismiss some of these as having ergative marking only as a relic from a 'true' ergative period, or perhaps one could expect that one or two of them borrowed their ergative marker.

The notion that S precedes O because S is normally topic is a satisfactory explanation only if we can explain independently why a topic should precede a comment. Topics do precede comments in mediums of communication other than language such as mime and dance. This is true, and it is true of at least some types of visual display.

Principle (b), the heavy-to-the right principle, can be explained in terms of the demands that are placed on our short-term memory by its violation.

I gave the school, which said they were having difficulty finding suitable material for the fourth formers, particularly those who were slow readers, a copy of The secret life.

When the reader hears NP give NP (properly non-human) to complete construction. If, as in the above example, the first NP is overly long, the listener must retain the expectation of the patient NP while processing the elaboration of the recipient NP. This causes some strain in short-term memory and a speaker is likely to use alternative construction – NP (agent) gives NP (patient) to NP (recipient) — in order to avoid the difficulty. In general, centre embedding, i.e. any form that

involves returning to complete a construction started before the embedding, causes a strain, often a conscious strain, on the short-term memory and is avoided.

The principles of topic-to-the left and heavy-to-the right are in harmony. It is sometimes observed that pronouns often occupy different positions in the clause from noun phrases with the same grammatical or semantic function. The heavy-to-the right principle (principle (b)) is really only applicable to cases involving quite heavy constituents i.e. constituents involving chains of co-ordinate constituents, relative clauses and the like.

Principle (c) says that constituents tend to assume a fixed position according to whether they are subject, locative, dative (or whatever) or according to whether they are noun phrases, prepositional phrases etc. Strict adherence to (c) would mean strict word order and no variation according to the demands of topicalization, focusing and heaviness. If a language exhibits fixed word order, we say it follows principle (d). If languages show some kinds of variation, we say it follows (a) and/or (b).

2.6.2. Topicalization Hierarchies

Which constituent of a sentence is to be topic is largely determined by the context, linguistic or situational, but over and above this there is a tendency for a topic to be chosen according to a variant of the hierarchy namely 1, 2 \supset 3 \supset human animate \supset in animate (Mallison and Blake 1981: 151). Topics also tend to be specific rather than nonspecific and definite rather than indefinite.

It is not surprising that the speaker is at the top of the topicalization hierarchy. Language use presupposes the speaker. Language use typically involves communication with a hearer. *You* are presupposed by communication, second only after *me*. The topicalization hierarchy also manifests itself in the behaviour of indirect objects. An indirect object is typically high on the hierarchy and the patient in a sentence with an indirect object is typically low, usually being inanimate in fact. It is not surprising then to find that in most languages the indirect object precedes the direct object, of course, the existence of an indirect object is hierarchically determined in the first place.

Many languages are like English in allowing human locative to be expressed as indirect objects but not non-human ones.

12. I sent my old great coat to the Salvation Army.

13. I sent the Salvation Army my old great coat.

14. I sent my old jeans to the tip

15. In sent the tip my old jeans.

It is probably true that all other things being equal a definite recipient will tend to be expressed as an indirect object especially if the patient is indefinite. It is difficult to demonstrate this since it involves finding examples with both patient and recipient on the same level of the pronoun animacy hierarchy.

16. The committee allotted the couple a baby

17. The committee allotted a baby to the couple

The sentence (16) seems more natural. The sentence (17) is natural enough if the main stress is placed on *baby*; but it suggests an add situation in which a baby is allotted as opposed to something else.

In some languages, the recipient is simply represented in the same way as any (other) phrase expressing 'to' or 'towards'. This 'marked recipient' follows the patient in some languages, occupying the same position as other local phrases. In majority of languages, the relative order of the patient and recipient is hierarchically determined, a participant higher on the animacy hierarchy appearing first and a definite participant preceding an indefinite one.

2.6.3. Position of clitic pronouns

Clitic pronouns typically occur affixed to the verb. In some languages, they are suffixed to the first word or first constituent of the clause and in others, they are affixed to some kind of grammatical particle. In a few languages, a pair of bound forms in a transitive clause combines to form a free form. (Mallinson and Blake, 1981: 168).

If one considers where free pronouns occur in clauses, the position of bound pronouns makes sense. In written text or the artificial examples of grammar, pronouns rather than nouns is bound. Typical sentences of real speech consist of a verb and one or two pronouns and often not much else. Adverbial expressions are often separated from the verb and its pronouns. It is not surprising then to discover that the most common place to find bound pronouns is on the verb. One can also presume that the position of the bound pronouns reflects the earlier position of the free unstressed pronouns, though one cannot deduce the earlier position of stressed noun phrases.

Real life sentences, besides containing a verb and one or two pronouns are likely to contain a patient noun phrase, an oblique noun phrase or an adverbial. Any of these could occur at the head of the clause if they are focused, and oblique phrases or adverbials indicating the setting for the clause are particularly likely to appear at the beginning of the clause. Of course if the language is verb final these words and phrases will not normally have the verb as an opponent seeking first place in the clause.

Clitic pronouns are not the only constituents that show some affinity for the second position in the clause. Linking words naturally tend to come at or near the beginning of the clause. They tend to compete for the first position in the clause with clause with a topic or a focus, in some cases with an extra posed topic or focus. In English, the linking adverb ‘however’ tends to come either at the beginning of the clause often set off by an intonation break or following the first constituent, where it usually receives parenthetical intonation.

18. However, the women were not prepared for this.

19. The women, however, were not prepared for this.

Some linking words must occur at the head of the clause (and, but or in English), but others become obligatory “second position’ words.

2.7. Summary

A brief introduction on word order is given as introduction. The word order parameters have been discussed as they are relevant in typologizing a language based on these parameters. The relative word order of subject, verb and object gives rise to six types: SOV, VSO, VOS, OSV and SVO. The correlations among word order parameters such as Greenberg’s correlations have been described. Generalization of Greenberg’s results also discussed. This is followed by a discussion on the value of word order typology, deeper explanations for word order universals, and methodological problem with reference to subject, object, indirect object and variant word orders. After this a discussion on factors determining word order is given. Under this heading the basic principles, topicalization hierarchies, and position of clitic pronouns have been discussed.

CHAPTER 3

CHARACTERISTICS OF ENGLISH AS AN SVO LANGUAGE

3.0. Introduction

In linguistic typology, subject–verb–object (SVO) is a sentence structure where the subject comes first, the verb second and the object third. Languages may be classified according to the dominant sequence of these elements in unmarked sentences (i.e., sentences in which an unusual word order is not used for emphasis). English is a highly consistent SVO language. As a consistent SVO language, English exemplifies the characteristic features of SVO languages, such as the many patterns that have been developed in the verbal modifying constructions, the wide use of substitutes and the grammatical processes used to highlight elements of sentences.

The verbal patterns make heavy use of auxiliaries, which are also involved as substitutes and in interrogative and negative constructions differentiating English in this way from (S)OV languages like Japanese and VSO languages like Easter Island. The grammatical processes involve function words, again in distinctive constructions like clefting. An examination of the characteristic typological patterns presented below in accordance with the patterns listed here then discloses on one hand the expected constructions found in SVO languages and on the other the basic structure of English.

Lehman (1978: 169-222) discusses elaborately on the characteristics of English as an SVO language. He has made use of examples from Lewis Carroll’s “Alice wonderland” and “Through the Looking Glass” to substantiate his arguments. His examples used by him have been profusely made use of in this chapter. Remarks have been made about the characteristics of other types of languages, especially SVO languages, for the sake of comparison.

3.1. The Structure of simple clauses

Simple, unmarked clauses agree with the SVO pattern and require representations for the three constituents: subject, verb, and object.

1. Alice folded her hands.

Neither the subject nor the verb nor the object of a transitive verb may be omitted; the following variants of this sentence are impermissible.

- *2. Folded her hands
- *3. Alice her hands
- *4. Alice folded

Further, a consistent SVO language like English does not permit any order than the above in unmarked sentences occurring as single utterances. Thus the following are not possible (Lehman, 1978: 171).

- *5. Folded Alice her hands
- *6. Folded her hands Alice
- ?7. Her hands folded Alice
- ?8. Her hands Alice folded
- ?9. Alice her hands folded

The last three are questioned rather than starred because they might be possible in the middle of a discourse. This constraint applies also in subordination, as in the given sequence.

- 10. Margaret fidgeted while Alice folded her hands.

Such a mandatory syntactic arrangement then requires the analysis of English as an SVO language. Any attempt to propose a different underlying structure for English fails to consider the implication of such analysis for other languages. If, for example, English were to be labeled a VSO language, one would have to account for the differing characteristics in languages like Easter Island or Irish. When such attempts have been made under the rubric of a given theory, languages of VSO structure have not been considered.

Inasmuch as the basic patterns of English are so consistent, this chapter will discuss at some length the consequences of SVO structure. One of these has to do with the expression of verbal qualifiers. In accordance with the principle, verbal Qualifiers must precede verbs. This position, however, conflicts with the optimum position for subjects. So, to express negation, for example, the negative might be prefixed to the verb, as it indeed was in old English, so that the negative of (1) might be.

- 11. Alice – he folded her hands

Such a position seems awkward, as does sentence-initial placement.

12. *Ne Alice folded her hands.

The dilemma has been resolved for English by the use of auxiliaries as will be observed at some length below. Auxiliaries are characteristic of SVO languages though not confined to them.

Moreover, SVO languages typically require the S position to be filled, as well as the V and O positions, though with well-defined exceptions, in contrast with simple verb sentences in OV languages. To meet this requirement, substitutes are prominent, as in the following variants of sentence 1.

13. She folded her hands

14. The griffon folded its wings. Alice did her hands.

15. The griffon folded its wings and Alice her hands

16. Alice folded them

Further, the characteristics of SVO languages have given rise to special constructions. Thus, if the requirement for the S to be placed before the V were rigidly observed, an awkward style would result, and also special emphasis on the S. Devices then have been developed to offset these difficulties, such as the passive. This is a construction, which permits the object to be the theme. Passives are especially characteristic of SVO and VSO languages. Other similar devices, such as clefting, also have largely a functional role (Lehman 1978: 173).

In contrast with OV languages, the subject is the mandatory nominal constituent of SVO languages, as in sentences with intransitive verbs, or in equational sentences.

17. Alice turned

18. I shall be too late (Substantive Copula Adjective).

19. I am not a serpent (Substantive copula substantive)

20. The face is over (Substantive copula adverted).

Constituents in these patterns may be highlighted through various grammatical processes, as noted further below.

21. It was Alice who turned

Marking too may be used for singling out various constituents by change of order or by intonation, with or without accompanying particles.

22. a. A serpent I'm not
b. I am not a *serpent*

The impacts of such variants are determined by the regularity of the basic SVO pattern, which assures marked effects because of the contrast introduced.

Government operates strongly in English, both in predicates and in other government constructions. Only prepositions are used in current English except for specific idioms: *ago*, as in *two years ago*, may be viewed as a postposition, but it is severely restricted in use, as may be illustrated by the attention given to Dylan Thomas's phrase: *a grief ago*.

23. Then slice dodged behind a great thistle.

Moreover, constructions with a standard place this after the variable. In comparisons of inequality the adjective precedes the standard.

24. It is very easy to take *more* than nothing.

In titles, the name follows, functioning like a standard for the "variable" title.

23. Queen Alice

In personal names the surname follows as standard to the given name

25. Alice Pleasance Liddell

And in numerals in the teens, the form of ten follows, as in the other constructions of this kind furnishing a standard for the simple numerals from three to nine.

26. Fourteen

It is the prominence of government which leads the rhetoricians to assert for English that "*main elements are usually most emphatic at the end of a sentence*". (Crews 1977:140). English has been characterized by functional syntacticians as a language in which the initial segment, or rheme often using old material, sets the scene for the new material, or rheme. Thus in sentence 1 the subject Alice is one of the elements of the preceding discourse, while the predicate *folded her hands* introduces a new action. SVO order provides a convenient basis for such organization of sentences. VSO languages, on the other hand, provide greater difficulty for initial placement of the theme,

requiring special constructions for that purpose. Subjects normally furnish a link with previous sentences, thus being less “emphatic” in Crew’s characterization and yielding the position of rhetorical emphasis to the verb and its object or complement. This same effect may be noted in the other government patterns, for example, in comparative constructions, where the standard holds the position of greatest prominence.

3.2. Nominal Phrases

As in other SVO languages, the position of relative constructions is determined by the VO constituent. They regularly follow nouns, avoiding in this way disruption of the verb-object constituent. The relationship of relative constructions to their antecedents is so clear that if an object is the shared noun of the relative clause no marker is needed; *which* or *that* is often omitted, as after *rules* in the following example.

26. All because they would not remember the simple rules their friends had taught them.

English relative constructions may be restrictive, as is the first in the following quotation or descriptive, like the second. Restrictive clauses are normally spoken as part of the intonation pattern of their head; this pattern of intonation is generally indicated by lack of punctuation, unlike Carroll’s practice here. Descriptive clauses on the other hand have their own intonation pattern.

27. The only two creatures in the kitchen, that did *not* sneeze, were the cook, and a large cat, which was lying on the hearth and grinning from ear to ear.

The distinction between restrictive and descriptive relative clauses is maintained for other nominal modifiers as well, such as the participles in the following examples (Lehman, 1978: 176).

28. There stood the Queen in front of them, with her arms folded, frowning like a thunderstorm. (Descriptive)

29. With tears running down his cheeks, he went on again (Restrictive).

The contrast also applies to adverbial clauses. The temporal clause in (30) is restrictive, while that in (36) is descriptive.

30. So Alice began telling them her adventures from the time when she first saw the white Rabbit.

31. That's different from what *I* used to say when I was a child

The parallelism in this respect between relative clauses, whether in full form or as abbreviated to descriptive adjectives and adverbial clauses reflects the similarity of their origins? When relative clauses were developed in the Indo-European languages, many of the conjunctions were based on the stem of the relative pronouns (Lehmann 1978: 176).

Syntacticians have long proposed that descriptive genitives and adjectives are reduced forms of relative clauses. Genitives then observe the arrangement of relative clauses with regard to their head; 90 percent of the genitive constructions in contemporary English do, following their head (Fries 1940).

32. With her head in the lap of her sister.

(From: The lap is her sister's)

In the course of reduction, the form of the verb BE is elided together with the relative pronoun.

33. She peeped over the edge of the mushroom

If genitives, however, are proper nouns particularly single names, they often precede.

34. To Tweedledum's house.

Yet even single names are often post posed.

35. To the house of Tweedledee

The current status of the genitive in English and its development has great historical interest, for they reflect a change from OV order in pre-old English times VO order today.

While the favoured order for genitives has been shifted, adjectives still predominantly precede the modified noun.

36. An enormous puppy was looking down at her with large round eyes.

Only when they are in turn modified do descriptive adjectives regularly follow their head.

37. And then they rested on a rock conveniently low.

Limiting adjectives – articles and demonstratives – also stand before nouns, as do numerals; they usually precede descriptive adjectives, with limiting adjectives standing before descriptive adjectives.

38. And at that distance too.

39. I haven't sent the two messengers

40. She jumped over the first of the six little books.

Parallel to the order of limiting adjectives is that of multiplying numeral combinations with nouns representing higher entities: millions, thousands hundreds, tens in the order of higher to lower (preceded by the simple numerals) (Greenberg 1976: lecture)

41. Four thousand two hundred and seven . . .

As with preposed descriptive adjectives, genitives and relative clauses, preposed limiting adjectives and the cited numeral combinations reflect OV structure. This is the most conservative of the English modifying patterns. In maintaining it as a relic pattern, English provides evidence for the OV structure, which is posited for its ancestor language, proto Indo-European. Yet English nominal phrases for the most part observe the canonical order of SVO languages, maintaining from early stages OV order only with adjectives and numeral constructions other than the teens (Lehmann, 1978:178).

3. 3. Verbal Phrases

In SVO languages, expressions for verbal modification should be placed before verbs, in accordance with their VO structure. Like nominal modification, verbal modification avoids disruption of the VO constituent. Such placement leads to difficulties, however, through conflict between the mandatory subject and the verbal modifying constituent. SVO languages resolve these difficulties by various means. One of the most widespread is the use of auxiliaries: these function in part like verbs, in part like empty markers which can be placed before the central verb but still not interfere with the similar preverbal placement of the subject. The English dummy verb DO admirably exemplifies such a device. It provides the qualifying marker, but because of its weakly stressed form it does not interfere with the initially placed subject. Yet, in contrast with VSO languages, auxiliaries in SVO languages do not coalesce with the central verb, providing prefixed markers. The presence of separate verb like elements called auxiliaries then constitutes one of the

characteristics of SVO languages and of English. Expressions for declarative utterances simply observe the normal word order.

42. This speech caused a remarkable sensation among the party.

This arrangement is accompanied by an intonation pattern, with final drop in pitch from the syllable with the chief accent. The contrasting pattern is one of the devices for expressing interrogation.

43. You like poetry

This pattern is commonly found with an auxiliary preposed before the subject to express interrogation.

44. Is this New Zealand?

45. Do cats eat bats?

Such questions usually require an answer of either yes or no, and as a result they are often labeled yes-or-no question.

In accordance with the general ordering principle, the interrogative marker should stand close to the sentence boundary, whether initially in VO languages or finally in OV. For SVO languages this requirement provides a difficulty, inasmuch as the subject should also occupy this position. The conflict has been resolved in two ways in English. For pronominal questions it has led to the production of a special set of words which may combine the interrogative with a substitute for the subject, the so-called *wh*-words.

For yes-or-no questions, it has led to the introduction of auxiliaries. Among the auxiliaries *Do* is the most remarkable in having today only a grammatical marker as in (45), or as a device for the indication of negation or emphasis. Other auxiliaries combine uses as grammatical markers with expression of modality, aspect, and tense. The auxiliaries, which correspond to postverbal affixes in OV languages and preverbal affixes in VSO, are among the prime characteristics of SVO languages. Their gradual development in English and other SVO languages has been the topic of much fascinating research. Moreover, since understanding of the auxiliaries corresponds to an understanding of that section of the grammar of SVO languages regarding the verb phrase, the analysis of their role and functioning is required for an understanding of SVO languages.

The second large set of questions in languages is characterized by a question word. These, often referred to as *wh*-question words after the *wh*-segment in many English interrogative words,

Jespersen lebles x-questions, because they include an “unknown quantity” (Jespersen, 1924:303). Initial position of the interrogative element accords with the expectation of this order for the theme as well as with the general ordering principle.

46. What’s the French for fiddle-de-Dee?

47. What rights have you to call yourself so?

48. How is bread made?

English, like other SVO languages, permits only one wh-word before the finite verb, whether this is a noun as 46, an adjective as in 47 or an adverb as in 48. OV languages, by contrast admit more wh-words. The treatment of wh-words is then characteristic of language types.

Besides wh-questions and yes-or-no questions, English, like other languages, includes devices indicating presupposition in yes-or-no questions. One such device is the tag question, consisting of a positive auxiliary when a negative answer is presupposed, and a negative auxiliary for a presupposed positive answer. The auxiliary corresponds in form to that of the principal verb, as in the following idiosyncratic statement.

49. “I Speaks English, doesn’t I?” the Frog went on.

Interrogative expressions are then closely related to expressions for sentence negation, though negation may be used for syntactic rather than pragmatic purposes.

Negation, in accordance with the general principle, occupies third position from the sentence boundary, next to interrogative. This position is reflected in English negated yes- or-no questions.

50. Isn’t he a lovely sight?

In patterns other than questions, however, expression for negation is placed after the auxiliary, in this way preceding the principal verb but also not conflicting with initial placement of the subject.

51. Manners are not taught in lessons

52. I don’t rejoice in insects at all.

This position is observed even for emphatic negatives.

53. It’ll never do for you to be lolling about on the grass like that!

Besides their attraction to auxiliaries, negatives also are placed with indefinites, often standing initially.

54. Nobody said you did

Such negated indefinites incorporate sentence negation, as may be determined by producing a comparable sentence with a definite pronoun, whether a statement or a question.

55. She didn't say you did.

56. Didn't she say you did?

Individual segments of sentences may also be negated, with the negative indicator typically placed before the element negated.

57. Then there was an uncomfortable silence for a minute or two

Negative indicators are far more widely distributed in sentences of SVO languages than are those for interrogatives. They come to approximate the remaining Q features in lexical rather than grammatical expression. Of these further features, the middle is especially characteristic for its expression in SVO languages. Widely indicated by verbal suffixes in OV languages and by verbal prefixes in VSO languages, the middle is generally expressed with pronouns in SVO languages.

By old English times only one reflex of the middle remained, and only in relic patterns: *hatan* 'be called', whose cognate still survives in German *heissen* 'be called', *ich heisse x* 'my name is x'. Like other Q features the middle may come to be expressed lexically. Yet lexical expression for it fails to accord with the general patterning of verbs with an object in SVO languages. Even in old English times, *hatan* was used transitively more frequently than as a middle. And in Modern English only a handful of verbs remains which are middles. *e.g., agree, cross, embrace, hug, kiss marry, meet.*

58. Our letters crossed

(Rarely: Our letters crossed each other)

The gradual disappearance of such verbs may be noted from their greater abundance in Shakespeare (Jespersen, 1949: III. 332).

59. As you like It (1.1.117) Never two ladies loved as they do.

In spite of such lexical middles, the characteristic device for expressing middle features in SVO languages is pronominalization.

The earliest expression for reflexivization through pronouns in English made use of personal pronouns, in a usage which has survived especially after some prepositions and in adjectival uses (Jespersen 1949: VII .4.8).

60. If I don't take this child away with me . . .

(Not: myself)

61. It unfolded its arms

(not: it self's)

For the most part, however, pronouns were suffixed with forms of *self* and *other* to form the characteristic elements in reflexive and reciprocal constructions today.

62. Alice was just beginning to think to herself

63. Don't give yourself airs

64. And here the two brothers gave each other a hug.

Compare the middle verb *agree*, which does not require an overt indicator of the middle value:

65. Of course you agree to have a battle (Not: with each other)

The reflexive is maintained when its subject is elided.

66. "Don't grunt", said Alice, "that's not at all a proper way of expressing yourself".

While expression for the middle in English is "far from simple", whether for its history as Jespersen notes (1949: VII 162) or for its current use, as the last example and many cited elsewhere illustrate, it is basically made with pronouns, and in this way English is characteristic of SVO languages.

3.3.1. Expressions for Modality

Expressions of modality have intricate nuances of meaning, which merge with one another and shift as other Q features such as negation are aligned with them. Yet the patterning is straight forward. Specific verbs come to be used as “modal auxiliaries” in early old English and have subsequently been enriched with others. Moreover, necessitative modality may be expressed through arrangement, in a reflection of a characteristic verb form for the imperative in earlier periods of the language. Initial verbs without a subject generally have necessitative force.

67. Drink me!

Auxiliaries are used, especially when tense or another Q feature is included.

68. You mustn't say that

(Nec. + Neg)

69. You should have meant!

(Nec + Perf)

The English modal auxiliaries have often been described, in treatments that are extensive. In Twaddell's treatment the modals proper are presented in three groups, with hierarchization of contingency (Lehmann, 1978:185).

Necessitative,	Voluntative,
Requirement,	Possibility,
Prescription,	Permission,
Obligation	Capability, Prediction

Absolute unrestricted	must, have to	can, be able to	will
Contingent Inconclusive	heed	may, might	shall
Morally Determined	ought to	dare	

As such a table suggests the meanings of individual modals are not sharply distinct. Since modals proper do not co-occur, we may conclude, as Twaddell also notes, that, “there are elements of incompatibility in their meanings”. Yet co-occurrence is found for “new” expressions of modality.

70. I shouldn't be able to say.

Such co-occurrence as well as other patterns, reflect the dual use of modals as full verbs and as grammatical markers expressing modality. As grammatical markers they may indicate interrogation, by initial position or they may support negation.

71. Will you walk a little faster?

72. I can't explain myself

Expression for modality may be accompanied by expression for aspect and tense, which is largely made through auxiliaries.

73. She would have liked very much to ask them how they came there.

3.3.2. Expressions for Aspect and Tense

Perfective aspect is often indicated by means of the auxiliary HAVE accompanied by the participle, as here, adverbials may be used with such compound verb forms.

74. By the time she had caught the flamingo and brought it back, the fight was over.

Momentary aspect is indicated by contrast with an auxiliary based construction using BE plus the gerund.

75. You're thinking about something, my dear, and that makes you forget to talk.

Simple, verb forms are used to express momentary action as opposed to continuous, which is expressed by means of be. . . ing forms.

76. Alice guessed in a moment that it was looking for the fan.

Both the perfective and the momentary expression are placed closer to the principal verb than are expressions for modality, with + continuous or – momentary following perfective expressions.

77. You ought to have finished

78. I must be growing small again.

79. You couldn't have wanted it much

80. You couldn't have been wanting it much.

With its adaptation of auxiliaries, English has developed a complex verb phrase. Yet the requirement that a subject be expressed with these complexes leads, to a less harmonious system of verbal quantifiers of SVO languages. The auxiliaries of SVO languages are comparable on the one hand to principal verbs, on the other to grammatical markers.

Further, SVO languages tend to employ increasing numbers of verbs as auxiliaries, leading to expanded lexical expression of Q features. The results are especially notable in technical and scientific language, in which auxiliary like verbs comes to be highly prominent, expressing little more than Q features.

In treatments of German the resulting patterns have come to be known as *streck for men* ‘extended forms’. such verbs in English are ‘get’ and ‘make’, which have come to be used to express the causative, and give and take, which in such expressions also little but express verbality and direction.

81. I give you fair warning

(= I warn you fairly)

82. The other guests had taken advantage of the Queen’s absence.

(seventeenth century: advantaged themselves)

An extreme development of auxiliaries is found in Basic English, which excludes all but a dozen verbs. This ultimate development, or virtually caricature, of English devised by I.A. Richards (1943) illustrates forcibly how auxiliaries are perceived to be characteristic verbal markers in SVO structure, in contrast with prefixes in VSO and suffixes in OV (Lehmann, 1978:188).

The iterative is expressed lexically, by means of repetition or with particles.

83. Still she went on growing and growing.

84. She generally gave herself good advice...and sometimes she scolded herself...

The causative is also expressed with characteristic verbs, or lexically, as in the three expressions for “cause to be dry” below.

85. It doesn’t seem to dry me at all.

86. I’ll soon make you dry enough.

87. What I was going to say . . . was, that the best thing to get me dry would be a Caucus-race.

The verb get puts the emphasis on the process of causing, make on the result.

88. She'll get me executed, as sure as ferrets are ferrets.

89. The hot day made her feel very sleepy and stupid.

The predominant use of auxiliary like verbs to express causation, whatever their further connotation, reflects the history of English. In its earliest attested texts, it still contained causative verbs which were distinguished. From simple verbs by suffixation of -i/-j- e.g., old English *nevan* meaning 'rescue'.

For the most the suffix had been lost, with some verbs maintaining a distinction between the causative and the simplex through vowel difference. e.g., old English *settan* 'set', *sittan* 'sit'. Subsequently even such lexical contrasts have been lost, so that the expression of causation in verbs is distinguishable only by syntactic means, *the breeze dried her hair* versus *her hair dried*. The confusion between *sit: set* and *lie: lay* in spoken English is proverbial. Causative expression has accordingly been lexicalized or expressed in characteristic, phrasal formations. These several possibilities have given rise to much discussion among linguistics concerning the relationships in meaning between such expressions as *kill* and *cause to die* (Lehmann, 1978:189). It is not difficult to demonstrate that Q expressions consisting of individual elements permit greater explicitness and flexibility, especially of interrelationship among several Q features, than does lexicalization of Q features in SVO languages.

Of the expressions for aspect and tense, that for tense alone still maintains the OV pattern of suffixation, e.g., *advise: advised*. Yet even here the means of expression have been eroded, as in *set: set*, and in irregular forms like *dive: dove*, *dive: dived* or tense is indicated through auxiliaries, as for other Q features. When auxiliary expression is considered as well as inflection, English distinguishes between the present, past and future tenses (Lehmann, 1978:190).

90. I advise you to leave off this minute. (Present tense)

91. Who in the world am I? (Present tense)

92. Was I the same when I got up this morning? (Past tense)

93. Did you ever eat a bat? (Past tense)

94. Dinah'll miss me very much. (Future tense)

95. And then I'll tell you my history. (Future tense)

Expression of tense may be combined with expressions for aspect. Its freedom of position permits the suggestion that tense is closely related to nominal or adverbial indicators of time, as in: *We leave tomorrow. They dine at eight (to night).*

3.4. Sentence Adverbials

Another device has been developed in English which may be characteristic of SVO languages: the so-called sentence adverbials (Lehmann, 1978:188). These resemble modals in referring to the entire sentence, for example, *unfortunately* in (96 and 97 as opposed to 98).

96. Unfortunately, the duchess played badly

97. The Duchess, unfortunately, played badly

98. The Duchess played unfortunately badly.

In sentences (96) and (97) the adverbial sets the tone for the entire sentence. Linguists then equate it with a longer, reduced sentence, such as *It was unfortunate that . . .* They support this analysis by noting its independent intonation pattern. Some sentence adverbials, like *unfortunately*, are also widely used as general adverbs, modifying adjectives, adverbs, and verbs others are more widely used as sentence adverbials, such as *certainly, perhaps, possibly, probably*.

3.5. Compound and Complex sentences

Compound and complex sentences are general in all types of languages though the distribution of kinds of alignment and devices vary. In expressing coordination, VO languages place particles before the coordinated element, typically the last (Lehmann, 1978:193).

99. and then the different branches of Arithmetic – Ambition, Distraction, Uglification and Derision.

OV languages, by contrast, place such particles after the coordinated elements, with possible omission after the last, as in Japanese. Tamil shows co-ordinator in all coordinated elements.

100. *raamav-um raaNiy-um raajav-um maRRum piRar-um vandiru-ndt-anar*

Raman_CO Raja_CO Ram_CO and others also come_PAS they

‘Raman, Rani, Raja and others also have come’

Coordination is often accompanied by ellipsis, especially in SVO languages, both with the same subject of a verb and with different subjects.

101. So she sat still and (she) said nothing.

102. some of the jury wrote it down “Important”, and some (wrote it down) “unimportant”

103. The owl and the panther were sharing a pie.

The kind of ellipsis exemplified in (21.4) is particularly characteristic of SVO languages, for the differing subjects and objects in their fixed order permit ready reconstruction of the elided segments of the sentence. Both in VSO and SOV languages, on the other hand, the reduced sentence may give rise to ambiguities, for the nouns expressed by S and O are not separated by a verb. In coordination, clauses may be adversative as well as parallel in meaning.

104. I’ve read that in some book, but I don’t remember when parallel, non-finite verbs are commonly used.

105. He kept shifting from one foot to the other, looking uneasily at the Queen.

While coordination, or parataxis, is general in sentences of SVO languages, it is far more characteristic of OV languages.

Subordination is often marked with the conjunctions and is found whether or not the two related clauses have the same subject.

106. If you can’t be civil, you’d better finish the story for yourself.

107. Alice watched the white Rabbit as he fumbled over the list,

In OV languages, related clauses with the same subject tend to make use of participles, as in Turkish, Tamil make use of normalized form in the context.

108. *ndii matu arundtukaiyil ellaavaRRaiyum maRandhu viTukirai*

You liquor drink-PAS-Noun LOC all forget-pre-you

‘You forget everything while drinking liquor’

SVO languages on the other hand, with their favouring of hypotaxis, tend to have devices for indirect statements and questions. These devices may involve special forms of verbs or uses of

substitutes. In current English, special inflections (subjunctives) are no longer found, with the exception of BE, but modals or past tense forms are introduced in the indirect quotations (Lehman 1978:195).

107. I told you butter wouldn't suit the works

(From: I told you, "Butter won't suit the works".)

108. The very first thing she did was to look whether there was a fire in the fireplace.

(From: In there a fire in the fire place)

Special verbal patterns may also be used in the adverbial clauses, notably in contrary-to-fact conditionals.

109. You'd have guessed if you'd been up in the window with me.

Yet for the most part, in English, adverbial clauses have unchanged verb forms. They express various relationships, generally through conjunctions. The subordinate clause may precede or follow the main clause though often a conditional clause precedes in keeping with a practice that has been characterized as universal.

110. Now I growl when I'm pleased and wag my tail when I'm angry (Time)

111. Only as it's asleep, I suppose it doesn't mind. (Cause)

112. We called him Tortoise because he taught us. (Cause)

113. Every thing's got a moral, if only you can find it. (Condition)

Conjunctions may however be omitted, especially in verse and the spoken language.

114. You have baked me too browns, I must sugar my fair (Result)

Subordinate clauses tend to stand in an adverbial relationship with their matrix clauses, as the labels for the examples of (24) indicate. When on the other hand the relationship of the embedded clause to the matrix clause is comparable to that of an object, the embedded elements are often called complements, and the process is called complementation (Lehmann, 1978:196). Complementation in VO languages differs characteristically from that in OV languages, for the markers stand in different positions with regard to the matrix and the verb of the embedded segment.

Complementation is found characteristically with *verba dicendi* ‘verbs of saying’ and *verba sentiendi* ‘verbs of perception’.

115. She said afterwards that she had never seen in all her life such a face as the king made.

116. He cat seemed to think that there was enough of it now in sight.

As in these examples, complements in English may be full clauses introduced by a complementizer, typically *that*. Especially when the subject of both verbs is the same, however, a non-finite form may be used in the embedded clause, either the infinitive introduced by (for) or the gerund.

117. She wants for to know your history.

118. The governess would never think of excusing me lessons for that.

While complements in SVO languages tend to be nominal clauses or reduced nominal clauses, in OV languages, they are generally sentences embedded before a noun, so called nominalizer,

119. *raaja cennai-kku poo-v-at-ai raaNi virump-av-illai*

Raja chennai-DAT go-NOM, ACC Rani want-INF-not

‘Rani did not like Raja going to Chennai’

Whatever the devices used for complementation, it is simply a process for expanding the nuclear sentence; a clause or a reduced form of a clause serves as an object. Similarly, adverbial clauses are expanded forms of adverbs. However involved they become, compound and complex sentences in general maintain the patterns of simple sentences, whether these are SVO, VSO, VOS, or OV. Further explorations in typology will lead to increased understanding of the characteristics of the more involved constructions in each type of language.

While the involved constructions dealt with in this section exploit the possibilities of each type, they do not overcome its weaknesses. These result in part from the rigidity imposed by a given type, as we may illustrate with SVO patterns. Theoretically, all sentences in an SVO language should follow that structure, as in sentence (1).

1. Alice folded her hands.

In this structure the agent of the action is also the subject-grammatical logical and psychological or whatever terms may be used for these functions. Yet, another constituent of the

sentence may occupy one of these roles and accordingly stand in initial position. When it does, the process is referred to as foregrounding or marking. Various devices are used for marking with reference both to the nuclear sentence and to grammatical processes.

3.6. Marking

Marking or highlighting may be achieved by departing from the standard order, by special intonation, or through the use of particles. In written texts the special intonation patterns may be difficult to determine; but Lewis Carroll indicated many of these by italicizing marked constituents, as illustrated below. A prominent aim of marking is to put the object before the verb, with or without the use of special intonation or particles. In English the subject is then maintained before the verb.

120. Oh dear, what nonsense I'm talking! (Marking through OSV order)

121. That you won't! (Marking through OSV order and intonation)

122. This of course, Alice could *not* stand. (Marking through OSV order, intonation and particle).

Marking is also used prominently in abbreviated sentences.

123. Who is to give the prizes? Why, *she* of course

It may apply to elements other than objects of verbs, as in 123 and the following examples.

124. Adjectives you can do anything with but not verbs.

125. Said the mouse to the cur

126. Up I goe like a sky-rocket,

Yet some patterns do not admit it, whether in SVO or SOV languages. Among these are adpositions and comparatives of inequality. A sequence like '*the dog is cat from big*' would scarcely be expected in English or in any other SVO language unless it has undergone SOV influence. Such patterns were maintained in Homeric Greek and classical Latin from their earlier SOV stages. Marking applies particularly to the freer patterns, such as clauses and noun modifiers. It is especially frequent in poetry, as with the adjectives in the following example.

127. The dream-child moving through a land of wonders wild and new

3.7. Grammatical processes

The various language types are characterized by grammatical constructions which result from or are at least closely aligned with their pattern. The normal requirements of subjects and the frequent requirement of objects lead to mandatory use of substitutes in SVO languages, of which the most prominent are pronouns.

Languages of the SVO pattern require overt expression of subjects. Any subject can, of course, elide in a suitable context, such as the subject in the answer to ‘*What did you do then?*’ “*Went home*” And every language includes sequences like *yes! Thanks! Dear me!* which Jespersen called amorphous sentences (Lehmann 1978:200). In comparison with OV languages like Japanese, English and other SVO languages observe constraints in ellipsis and in the application of grammatical rules.

3.7.1 Pronominalization

Pronouns are in the first instance substitutes for nouns.

126. “ However, the egg only got larger and larger and more and more human: when she had come within a few yards of it, she saw that it had eyes and a nose and a mouth; and when she had come close to it, she saw clearly that it was HUMPTY DUMPTY himself “It can’t be anybody else!” She said to herself. “I’m as certain of it, as if his name were written all over his face!”

This passage, the first paragraph of a new chapter, indicates how in a new text a noun (egg) is used, and thereupon a pronoun (it). To be sure, a pronoun is used at once for the heroine (She); but by this time in the story Alice has been well established as the central figure, and accordingly a substitute is unambiguous. Besides serving as “substitutes”, pronouns may convey additional information, as when *himself* rather than *itself* is used after Humpty Dumpty to identify the egg as a well-known figure in nursery rhymes. Yet essentially, they are substitutes, required by the SVO pattern.

Introduced with reference to an identified noun in anaphora, or in a further function to external objects in deixis, pronouns lend continuity to an account. On the other hand, without adequate context, sentences in which they occur are murky in meaning.

126. And oh, I wish you could see her after the birds!

This sentence is obscure unless one knows that *her* refers to Dinah, Alice's cat; the references of *I* and *you* are also clear from the context.

127. Wouldn't it be murder to leave it behind?

With two uses of *it*, this sentence is obscure unless one knows that the first *it* is an "anticipatory subject" and that the second refers to "the child".

128. "Which is just the case with *mine*", Said the Hatter.

This sentence is even vaguer with its three anaphoric elements: *mine* refers to the Hatter's watch; *the case* refers to the fact that a watch does not indicate the year "because it stays the same for such a long time together" and *which* refers to the similarity of the watch and other timepieces in not indicating the year.

Like *which* in (129), pronouns often refer to situations or actions rather than simply substitute for nouns. Similarly, while *they* in (26.5) refers to "three sisters" *that* refers to "three sisters", *that* refers to their "living on treacle."

129. "They couldn't have done that, you know".

Pronouns are accordingly substitutes for any syntactic element with substantial use. By placing a demonstrative in initial position, it is possible to emphasize the situation rather than the subject.

130. Now kitty let's consider who it was that dreamed it all. This is a serious question. . .

(Not: the question is serious)

Interrogative pronouns may be used rhetorically rather than to ask a question. In the anaphoric uses, pronouns are comparable to elements in other types of languages like Japanese, Tamil, etc. Whether or not other OV languages parallel it in the wealth of such devices, their structure leads to less explicit expression of the subject, and accordingly less use of pronouns than is found in SVO languages.

131. What do you suppose is the use of a child without any meaning?

(Not: a child . . . is useless)

Relative pronouns are used as a linking device in the construction often referred to as cleft.

132. I' m one that has spoken to a king, I am.

Moreover, in descriptive relative constructions relative pronouns are scarcely more than grammatical markers.

133. Here he looked at Tweedledee, who immediately sat down on the ground, and tried to hide himself under the umbrella.

In keeping with the heavy reliance of past grammars on morphological markers, clauses introduced by relative pronouns have been viewed as comparable whether they are restrictive or descriptive. Unlike many languages, English uses relative clauses in both restrictive and descriptive functions distinguishing them primarily through intonation. Even a language as closely related to English as German has demonstrative clauses corresponding to English descriptive or appositional relatives. Many studies devoted to explicating differences between the two types of English relative clauses might gain perspective from examination of comparable constructions in other languages. For in descriptive relative clauses the pronoun is largely a grammatical marker. In (133) *who* could be replaced with *and he* or *but he*. The relative pronoun is a compact and convenient device in a linguistic type requiring expression for subjects and objects. (Lehmann, 1978:24)

The prominence of pronouns in SVO languages is paralleled by that of other substitutes, both for substantives and for other syntactic elements. Among these further substitutes are quantity words and numerals.

134. It's laid for a great many more than three.

Besides the pronoun *it*, which refers to '*table*' the quantity word *more* and the numeral *three* refer to guests at a meal.

3.7.2. Anaphora

As for pronouns, such use of substitutes is connective, in providing close relationships with previous matter. In this way it is similar to use of anaphoric elements: *this, that, here, there*".

135. "That you won't!" thought Alice.

(That = Then I'll go around, and get in at the window)

The substitute refers to an entire sentence expressing the rabbit's proposed action. Anaphoric particles, such as *so*, may also substitute for entire sentences.

136. "There ought to be some men moving somewhere – and so there are!" (So = some men are moving about)

Auxiliaries such as forms of DO commonly substitute for verbs, as had does below, indicating past perfect tense:

137. "She's grown a good deal!" was her first remark she had indeed.

A further prominent anaphoric device is deletion, which is carried out under highly specified conditions, as has long been observed, to yield a zero substitute. Thus, in coordination specific elements can be elided, such as subjects and other constituents (Lehmann, 1978:205).

138. At last he said, "you're travelling the wrong way," and (O=he) shut up the window, and (O=he) went away.

139. --- and everybody jumped up in alarm, Alice (O=jumped up) among the rest

Substitutes may also refer to adverbial phrases, as does *there* in 141 for a phrase like *along the river-bank*.

140. There are some scented rushes!

In a further use, *there* has been extended as a pure grammatical marker in foregrounding, where it occupies the place of the grammatical subject but is in no way anaphoric.

141. There's certainly too much pepper in that soup!

The grammatical application of THERE for emphasis is very prominent in English. Like other anaphoric elements, there has come to be a grammatical marker, assisting in providing flexibility of expression in the SVO pattern.

3.7.3. Passivization

Flexibility of expression is achieved also through the process known as passivization with the introduction of a passive the emphasis falls on the object, or the verb, rather than on the agent of the action, commonly the subject of active verbs when misused, as often in technical language, passive

constructions lead to dullness, as Carroll demonstrates with his satirization of historical writing (Lehmann, 1978:206).

142. William the Conqueror, whose cause was favoured by the pope, was soon submitted to by the English.

Presumably the passive is so favoured in technical and scientific writing because it permits an SV sequence when the agent is unknown or unimportant.

143. She had read several nice little stories about children who had got burnt. (Mention of the agent of the burning is not essential)

144. I must have been charged for Mabel. (The agent of the change is not known)

The avoidance of mention of an agent thus may lead to emphasis on the verbal phrase. In the following example the target or object is highlighted more than it would be in the active variant: “They shall not behead you”.

145. You shan’t be beheaded!” said Alice.

Such an effect results even if the agent is introduced, as in the second example followed by a participle with passive force.

146. “Not quite right, I’m afraid”, said Alice timidly:

“Some of the words have got altered”

147. I wish they’d get the trial done.

The active possible variant: I wish they’d finish the trial is less forceful.

Passivization thus leads to foregrounding of the predicate, whether its object or its verb, or both. It achieves this effect in part by deleting the subject.

148. How is that to be done, I wonder?

An active variant:

149. How am I to do that?

would specify a definite actor, here *I* or an unidentified actor:

150. How is any one to do that?

Definite mention of the first-person actor would go counter to the sense, for someone besides the speaker might carry out the action. Mention of unidentified actors also is avoided, as unnecessary in view of the effect of the passive construction.

151. There ought to be a book written about me, that there ought.

Its function in this way may be most forcibly illustrated by noting that indirect objects may become subjects of passive verbs as well as direct objects.

152. She was given a book.

In the same way the passive in English does not require that an agent be included to correspond to the subject of the active variant.

153. That town can only be reached by boat.

This sentence may be derived from:

154. One can only reach that town by boat which does not lead to:

155. That town can only be reached by someone with a boat.

The passive in English then is not simply a voice used when “the subject is represented as the receiver or product of an action” but rather a grammatical construction used for highlighting constituents which by their normal order in an SVO pattern do not received such emphasis. It is conveniently used for constructions in which the active subject would be an inanimate or inert entity (Lehmann, 1978:208)

156. She ... noticed that they (insides of the well) were filled with cupboards and book shelves. (Not: cupboards filled them)

For somewhat the same reason the passive is used with verbs that combine an appositional element with an object.

157. It was labeled “ORANGE MARMALADE” (Not: Someone had labeled it “ORANGE MARMALADE”).

In contrast with the passive is many other languages, such as Japanese, the English passive construction then is a grammatical device primarily for foregrounding the verbal action or its object, but other constituents of the predicate as well (Lehmann, 1978:208).

3.7.4. Foregrounding: Topicalization

Other devices as well may be used for highlighting or topicalization. The subject may be taken out of the clause and its place filled with a pronoun.

158. As to the bottles, they each took a pair of plates.

Often the subject is placed last, in rhetorically emphatic position; the construction is commonly referred to as extraposition.

159. It's rather curious, you know, this sort of life!

By extra position especially subjects are highlighted, whether they are nouns or nominal phrases or clauses. *It* then serves as anticipatory subject.

160. It'll never do for you to be lolling about in the grass like that!

161. Wouldn't it be much easier to leave it behind?

Other syntactic elements, such as adjectives, adverbs and prepositions, may also be foregrounded by placement in initial position.

162. How surprised he'll be when he finds who I am.

163. Very soon the rabbit noticed Alice.

164. Up I goes like a sky – rocket.

Change of order, often to initial position, then is a frequently used device for foregrounding constituents, or topicalization.

Distribution of emphasis is also carried out by use of the existential *there*. This construction avoids foregrounding of any one constituent of the sentence, highlighting instead the entire situation rather than either the action or the actor.

167. There was a dispute going on between the Executioner, the king and the Queen.

Neither the disputes nor its progress nor the set of disputants is of central concern but rather the dispute in its progress among them. This pattern then is a device to avoid the inherent highlighting

given to subjects in SVO languages or to elements in final position, as the following examples also illustrate.

168. There was a large mushroom growing near her.

169. And certainly there was a most extraordinary noise going on within.

Grammatical devices have then been developed in English which highlight individual constituents or the substance of the entire sentence.

3.7.5. Clefting

A special construction which has come to be highly prominent for highlighting individual constituents is known as clefting. By “cleaving” the clause through use of *it* with a form of BE, this construction gives special emphasis to the element after BE, whether it is the subject, object or other constituent.

170. It was this last remark that had made the whole party look so grave and anxious.

(Not: This past remark had made the whole party look grave and anxious)

The sentence in parentheses would single out the appearance of the whole party as grave and anxious, the cleft sentence highlights the remark. The emphasized elements may or may not be followed by a relative pronoun.

171. It’s the most curious thing I ever saw in my life!

Conjunctions may also be used when appropriate.

172. It was so long since she had been anything near the right size that if felt quite strange at first.

Cleft sentences may be interrogative, or subordinate.

173. Is that the reason so many things are put out here?

174. Alice knew it was the Rabbit coming to look for her.

Here, the clefted sequence may be reduced to a participle clause. Clefting has led to patterns which use other devices than the anticipatory subject *it*, notably *there*.

175. There could be no doubt that it had a very turn-up nose.

The nonclefted sentence would be impossible without further change (*That it had a turn-up nose could be no doubt) such extensions of clefting illustrate its special force in the language.

A similar construction, known as pseudo-clefting, distributes foregrounding so that it does not fall on the object or other constituent put in first place.

176. A loaf of bread...is what we chiefly need.

The simple version of this sentence would highlight the object as last element.

177. We chiefly need a loaf of bread.

Typically, a pseudo-cleft places *what* initially, rather than in the modification applied by Carroll.

178. What we chiefly need is a loaf of bread.

The construction is then similar to the use of interrogatives in exclamations or indirect questions.

179. What a fight we might have for the crown now!

180. where the noise came from, she couldn't make out.

Like these it achieves emphasis for an element by arranging it nearer the first position in the sentence.

Grammatical processes have in this way been developed in SVO languages which compensate for some of their rigidities or even inadequacies English is not unique in developing such processes. Nor are the processes developed in English only possible ones for variety of expression in the SVO type. Those in other languages such as German *es (ist)* 'it (is)' in clefting or the French *C'est* 'it is', might be similarly explored and illustrated here. Yet English provides adequate illustration of the devices used to introduce flexibility in a language, whatever the strengths and disadvantages of its simple structures. Further typological study will identify the array of such constructions in SVO languages, as well as in languages of the other types, and in this way increase our understanding of language.

3.8. Morphological characteristics

A number of morphological characteristics have been identified for specific language types. Prominent among these is the placement of affixes, notably those expressing the verbal qualifiers. In

VSO languages these precedes the central verb; in OV languages, on the other hand, they follow, as in Japanese. VSO languages have prefixes; OV languages have suffixes.

The Principle applies also in some degree to expressions for case in the noun and to derivational processes. Like inflection for qualifiers, in VO languages derivational affixes are commonly prefixed while in OV languages they are suffixed. Yet it must be observed that morphological characteristics are highly conservative, and accordingly the patterning of affixes in any language at a given time must be carefully interpreted. It may represent archaic situation, or a characteristic which is being eliminated but is still relatively widespread. English illustrates such situations. In the older period, especially in its most archaic materials, it maintains a relatively rich system of suffixed inflections. These have steadily been reduced in the course of the history of English, until today the remaining inflections are secondary in importance to the device of arrangement and to the use of function words.

3.8.1 Inflection

English has very few inflections many fewer than did old English. Hypotheses have been proposed in attempts to account for their loss. Some scholars have ascribed it to phonological reasons, pointing to the introduction of a strong initial stress accent in proto-Germanic which in their view led to a consequent loss of inflectional suffixes. Others have advanced as counterargument to this hypothesis the observation that new elements might have been introduced as the older inflectional suffixes were lost.

It may also be observed that SVO languages by their basic structure do not require elements to identify the most frequent cases, those for the subject and object. Such identification is achieved by position of the verb. Accordingly infection for case may well be unnecessary in SVO languages when the order of elements is fixed. Before it is fixed, however, affixes are significant in indicating case forms and concord classes. Languages moving toward an SVO structure, like classical Greek and Latin, and to a lesser extent old English, then to have a full set of affixes to indicate concord of descriptive and limiting adjectives with nouns, and of nominal elements with verbs, as well as some cases (Lehmann, 1978: 214).

In SOV languages and similarly in VSO languages, on the other hand, devices are necessary to distinguish subjects and objects, or to distinguish sequences of two nouns, as is often done for genitive. Such distinctions may be made with affixes, but also as in Japanese with particles. In OV

languages these particles are postposed in VO languages they are preposed. Case systems are important for VSO and SOV languages; in VSO languages preposed particles or prepositions may distinguish different case relationships as postposed elements doing in SVO languages. In English on the other hand case relationships may be unspecified, as with the frequently cited verbs which permit a variety of semantic cases to be used without special marking, such as *open*.

181. The custodian opened the door. (subject = agent)

182. The key opened the door (subject = instrument)

183. The door opened. (subject = target or object)

Moreover, clauses having verbs with an indirect object as well as a direct may distinguish these simply by means of arrangement.

184. The attendant showed the visitors their room.

Inflection then, or even the expression of case relationships by means of particles, is not prominent in English.

In nouns all inflection for case has been lost with the exception of the genitive. Yet as noted above the inflected genitive has also been replaced largely by phrases with the preposition OF. Pronominal inflection is more conservative in maintaining distinct object forms in six elements (Lehmann, 1978:215).

I	:	me
he	:	him
She	:	her
we	:	us
they	:	them
who	:	whom.

Here too, however, the usage is observed less than in the past; especially after prepositions the old nominative form is often used. Case inflection then has been receding in English, and is still.

Of the various verb qualifiers, apart from the participles only the past tense has retained a morphological marker, generally by means of the D suffix:

heed	:	headed
hiss	:	hissed
heel	:	heeled

The other qualifiers are expressed through function words.

English then, as a characteristic SVO language, makes little use of inflection. The most prominent inflected elements maintained are those for concord categories: plural number in the noun and third person singular in the verb. Having preserved these inflections, English has not succeeded to the state of Chinese, which has had SVO structure far longer. While loss of final elements as a result of strong initial stress must be taken into account, English lends support to the hypothesis that SVO languages with fixed word order will tend to give up inflection for case in the noun and for qualifiers in the verb.

3.8.2 Derivation

The derivational processes of English are in great part conservative, for compounds are made in accordance with OV patterning. Nouns and adjectives prepose the modifying element to the modified element, as in *Cheshire cat*, *queer-looking* and so on. Moreover, suffixation is the primary derivational process in complex words, as in *curiosity*, *remarkable*, *cheerfully*.

Yet in the past two millennia prefixes have come to be prominent, whether in nouns, verbs, or other elements as in *insolence*, *adjourn*, *aloud*. These formations go counter to the OV constraint against prefixes. Other OV patterns of the early period have been abandoned, such as the use of object-verb compounds, as in old English *yrfe- numa* ‘inheritance + taker = heir’ Nor have they been modified to the VO pattern of such compounds which is prominent in Chinese and also in Japanese borrowings based on Chinese, as in the well-known pair: (OV) *hara-kiri* ‘stomach-cut’, (VO)

seppuku ‘cut-stomach’ for a traditional Japanese form of suicide. The English verbs of this OV compounding pattern, like *baby-sit*, are generally assumed to be back formations from adjectival compounds, such as *baby-sitting*. Accordingly, they are not productive formations of the OV pattern. The predominant patterns of derivation are then archaic residues from the proto-Indo-European and early dialect periods.

3.8.3 Morphophonemic Processes

Sandhi changes have for the most part been treated as processes of individual languages rather than as processes to be associated with specific types of language. The lack of concern for

general principles may be understood, for phonological process seems remote from patterns of arrangement related to expressions of meaning. Yet a general tendency has been proposed OV languages tend to have progressive assimilation if the appropriate phonological conditions are present and VO languages to have regressive. If appropriate conditions exist for vowels to be modified, OV languages (Tamil) then would have vowel harmony defined as modification of later vowels in a word by earlier vowels – and VO languages would have umlaut, that is, modification of earlier vowels by later. Similar directions of modification would prevail in constant assimilation.

Modern English shows no consistent direction of modification. In the major inflectional suffixes, such as the suffixes in the past and past participle (d t d), the assimilation is progressive. In most derivational suffixes, however, the assimilation is regressive; t > s before a former palatal –j- with *-ious* e.g; *vivacious* or t > s / c with *-ion*, e.g. *action*, and *-ure* e.g., *posture*, and so on. The progressive assimilation of the inflectional affixes involves the oldest morphological markers, yet it would be hazardous to suggest that in contrast with that in derivation this assimilation should be related to the older OV structure of pre-old English. Phonological processes have not been extensively investigated with attention to structure of their language. When they are, the many variables involved in specific developments must be noted with regard to both specific languages and specific phonological changes. On the basis of such investigations, more precise generalization may be proposed in the future. If English were to be characterized for phonological processes at present, these like its derivational patterns would be said to reflect in great part its earlier OV structure, accompanied by phonological changes expected in VO languages.

3.9. Phonological characteristics

3.9.1 Syllabification

English syllables show a wide range of structures from simple vowels as in *a* to sequences opened and closed by several consonants, as in *sprints*. While English shows such diverse syllabic structures, these can only tenuously be related to language types. The most readily observable correlation is that between OV languages and sequences of open syllables.

The change in Modern English to closed syllables with final consonant clusters, as in *guest* versus *ga-stir* and *horn* versus *hor-na*, is ascribed to losses of finals resulting from a heavy initial stress accent. Yet, as with the change to little inflection in English, the relationship between change of language type and change of syllabic structure is intriguing OV languages are often agglutinative

in morphology, and the suffixed syllables seem readily added if of a C(C)V structure as in Japanese or in other OV languages.

3.9.2 Suprasegmentals

The current English suprasegmental system was established some time before the beginning of our era, but not so much earlier that the final syllables were reduced by the time the Gallehus inscription was produced – about 350 A.D when it was established, a stress accent system was introduced for words or word like groups, and a pitch system maintained for clause intonation patterns.

Suprasegmental patterns have not been adequately studied in relation to language types, so that also with reference to them any generalizations will have to wait for considerably further study. Yet stress systems, accompanied by reduction of vowels, seem to be associated with VO languages, whether VSO or SVO and pitch systems with OV languages. But the patterning and relationship of possible systems with specific language types is imprecise. To judge from their distribution in specific areas of the world suprasegmental systems seem to be diffused among neighbouring languages. Information on the basis and history of a suprasegmental system in any given language must be known, as well as the system of neighbouring languages, before any useful statements can be made about its relationship with the structure of that language. For English and its earlier stages in any event, the suprasegmental systems are quite clear, that for the stage preceding ca 500 B.C as well as that today.

3.9.3. Segmentals

English has a moderate number of consonant and vowel phonemes; however, its segmental system is analysed. The figure of 24 consonants can be well supported; the vowels range in the neighbourhood of fifteen, depending on the analyst's views. The structure of the segmental portion of phonological systems seems to have little relationship with the typological structure of a language. Yet OV languages commonly have relatively small sets of vowels, as in Japanese and Proto-Indo European. VSO languages, however, may also contain few vowels, as does Arabic. While the sets of consonants seem to be the last formal elements which might be governed by principles regulating other characteristics of a language, they too must be carefully studied, for possible relationship with language types.

There seem to be no grounds for relating semantic structures with the syntactic, morphological, or phonological structures of a language. To propose associating a numeral system, for example a decimal or a quaternary, with any formal linguistic structure is totally unwarranted in view of our information about languages. As another example, the distribution of kinship systems, like the Omaha, shows no relation with formal linguistic characteristics. Semantic systems must accordingly be treated apart from typological patterns based, as here on form.

In recent treatments of typological patterning, even many syntactic constructions have been excluded. One example is the order of descriptive adjectives preceding nouns, *as in the little old temple down houses*. Their order seems determined more by semantic than by formal criteria which are language specific.

Further study may disclose such relationships, and also significant patterns beyond the thirty dealt with above. Investigation of additional languages will also clarify the relationships between functional, pragmatic and syntactic forces. English too, as the examples in this chapter illustrate, shows the forces at work in living language which modify the basic patterns to produce richness of communication without interfering with the underlying principles that determine its basic structure.

3.10. Summary

The chapter begins with an introduction on the characteristics of English as an SOV language. The structure of simple classes is described with illustrations. The constituent structure of nominal phrases of English representing SOV pattern is explained with examples. After this the constituent structure of verbal phrases of English is described with suitable examples. Under verbal phrases expression of modality and expression for aspect and time also described. This is followed by a description on sentence adverbials with examples. After this, the structure of compound and complex sense of English is described with suitable examples. Then marking or highlighting by departing from the standard order by special innovation or through the use of particles in English is explained with illustrations. After this, different types of grammatical processes in English such as pronominalization, anaphora, passivization, foregrounding: topicalization, and clefting, are described with suitable examples. After this, morphological characteristics of English such as inflection, derivation, and morphophonemic processes are explained with illustrations. Then the phonological characteristics of English such as syllabification, suprasegmentals and segmentals are described.

CHAPTER 4

CHARACTERISTICS OF TAMIL AS AN SOV LANGUAGE

4.0. Introduction

This chapter gives the syntactic structure of SOV languages with special reference to modern standard Tamil from the perspectives of typology.

4.1. Structure of Simple Clauses

4.1.1. Basic Word Order

Tamil is a verb-final language. Word order in the sentence is relatively free, as long as the sentence ends with a main verb. For example, ‘Raja introduced Rani to Mary’ in Tamil can have the following word-order variations:

1. a. *raaja meeriyai raaNikku aRimukappaTuttinaan*
Raja Mary_ACC Rani_DAT introduce_PAS_he
- b. *raaja raaNikku meeriyai aRimukam ppaTuttindaan*
- c. *meeriyai raaja raaNikku aRimukappaTuttinaan*
- d. *meeyai raaNikku raajaa aRimukappaTuttinaan*
- e. *raaNikku raajaa meeriyai aRimukappaTuttinaan*
- f. *raaNikku meeriyai aRimukappaTuttinaan*

Nominative is unmarked. *-ai* and *-ukku* are case markers representing the accusative, and dative cases respectively. The above sentences are identical in logical content but are different in discourse presupposition in a very subtle way.

The subject-initial sentence pattern is the most common among the various word order patterns. It was found that sentences with SOV word order occur more frequently than sentences with OSV order. (This is a cross-linguistic characteristic, as observed in Greenberg 1963, Greenberg’s Language Universal 1: In declarative sentences with nominal order is almost always one in which the subject precedes the object.) Greenberg’s observation is not without exception. There is, however, at least one syntactic argument for hypothesizing SOV, and not, say OSV, as representing the underlying word order for Tamil.

In contrast with OV language, the subject is the mandatory nominal constituent of SVO languages, as in sentence with intransitive verbs, or in equational sentences

2. raajaa neeRRu tirumpi vataan
Raja yesterday having returned came-he
Raja returned yesterday.
3. avan taamatippaan
he delay-fut-he
He will be late.
4. raajaa maaNavan alla
Raja student not
Raja is not a student.
5. pooTTi muTintatu
match end-pas-it
The match is over.

4.1.2. Word Order in Colloquial Speech

In written Tamil, sentences are almost exclusively SOV, but in colloquial speech nonverbal elements can appear after the main clause verb. For example, observe the following sentences:

6. a. *ndii indta puttakattaip paTittaayaa*↑ ?
you (theme) this book_ACC read
'Have you read this book?'
- b. *ndii paTi-tt-aay-aa indap puttakatt-ai*↓
you read_PAS_Q this book_ACC
- c. *paTi-tt-aay-aa ndii indta puttakatt-ai*↓
read_PAS_Q you this book_ACC

In colloquial speech *-ai* (accusative) is often deleted. What is noteworthy about 6.b, c is that the rise in intonation characteristic of an interrogative sentence is placed on the verb, and not on the last word of the sentence.

Postverbal constituents can be elements in subordinate clauses, as can be seen in the following examples:

7.a. *ndii ndaam ndeeRRu andta viTutiy-il enna caappiT-T-oom enpat-ai ndinaivukuuRu-kiR-aay-aa?*

you we yesterday that restaurant_LOC what eat_PAST_we COM_A

remember_PRE_you_Q

‘Do you remember what we ate at that restaurant the other day?’

b. *ndii enna caappiT-T-oom enpat-ai ndinaivukuur-kiR-aay ndeeRRu andta viTutiy-il*

you what eat_PAS_we COM_ACC remember_PRE_you_Q yesterday that restaurant

c. *enna caappiT-T-oom enpat-ai ndinaivukuur-kkiR-ay-aa ndii ndeeRRu andta viTutiy-il*

what eat_PAS_we COM_ACC remember_PRE_you_Q you

Postverbal *ndeeRRu* ‘the other day’ and *andta viTutiyil* ‘at that restaurant’ in 7b, c are constituents which appear in interrogative clause in 7.a. The “afterthought” analysis of nonverb-final sentences makes it possible to make the following two predictions (Kuno, 1978:62).

(i) Postverbal elements are either discourse-predictable (or rather, the speaker assumes that they are) or supplementary; therefore, the sentences should have made sense without them.

(ii) Elements that would change the interpretation of the first part of the sentence cannot appear postverbally.

These predictions are borne out by the following examples:

8. a. *ndii enna caappiT-ap poo-kiR-aay↑ ?*

you what eat_INF go_PRE-you

‘What are you going to eat?’

b. **ndii caappiT-ap poo-kiR-aay enna↓*

you what eat_INF go_PRE-ICL

9. a. *ndaan tamizh ndaaTT-iRku muunRu taTavai maTTum pooyiru-kkiR-een.*

I Tamilnadu_DAT three times only go_PAS_I

‘I have been to Tamilnadu only three times.’

8. b shows that wh-words cannot appear postverbally. This is because (i) wh-elements are discourse-nonanaphoric; and (ii) the postverbal addition of a wh-element would change the interpretation of the first part of the sentence completely, from that of a yes-or-no question (i.e. ‘Did you eat?’) to that of an interrogative-word question (i.e., ‘What did you eat?’)

4.1.3. Simple Sentence Types

Tamil sentence can be divided into three categories depending upon whether their verbals are (i) verbs, (ii) adjectives, or (iii) copulas. All three of these types of verbals conjugate with respect to tense, mode, and subordinating types:

4.1.3.1. Verbs

The following orders can be found in Tamil with reference to verb, subject, object and indirect object order:

10. a. S O V : *raajaa va-ndt-aan* 'Raja came.'
Raja come_PAS_he
- b. S O V : *raaja oru kaTitam ezhut-in-aan*
Raja a letter write_PAS_he
'Raja wrote a letter.'
- c. S IO DO V: *raajaa raaNikku oru kaTitam ezhut-in-aan*
Raja Rani_DAT a letter write_PAS_he
'Raja wrote a letter to Rani.'
- d. S IO V: *raajaa pukazh-ukku aacaippaT-T-aan*
Raja fame_DAT long_PAS_he
'Raja longed for fame'

Transitive constructions in Tamil acquire inanimate subjects, for example.

- 11.a. *puyalkaaRRu viiTT-in veeliy-ai azhi-tt-atu*
typhoon house_GEN fence_DAT destroy_PAS_it
'The typhoon destroyed the house's fence.'

4.1.3.2. Adjectives

Adjectives can occupy a predicate position, where they are inflected for person-number-gender.

- 8.a. *raajaa iLamaiyaana-van*
Raja young_he
'Raja is young'
- b. *indta kuLirkaalam mikavum kuLircciyaanatu*
this winter very cold_it

‘It is cold this winter’

In the following example adjective is expressed by an adverbial form (derived from noun) followed by a copula:

12. a. *raajaa innum iLamaiy-aaka iru-kkiR-aan*
Raja still youngness_ADV be_PRE_he
‘Raja is still young.’
- b. *indata kuLirkaalam mikavum kuLir-aaka iru-kkiR-atu*
this winter very coldness_ADV be_PRE_it
‘It is very cold this winter.’

4.1.3.3. Copulas

Copula is used in grammatical description to refer to a linking verb, i.e. a verb which has little independent meaning, and whose main function is to relate other elements of clause structure, especially subject and complement. In Tamil, the main copulative verb is *iru* ‘be’. It links the adverbialized nominal form (i.e. *-aaka* suffixed nominal form) with the subject.

- 13.a. *raaNi azhak-aaka iru-kkiR-aaL*
Rani beauty_ADV be_PRE_she
‘Rani is beautiful’
- 14.a. *raajaa aaciriyar-aaka iru-kkiR-aan*
raajaa teacher_ADV be_PRE_he
‘Raja is a teacher.’
- b. *raajaa aaciriyar-aaka iru-ndt-aan*
Raja teacher_ADV be_PAS_he
‘Raja was a teacher.’

Thus, Tamil also has a word class called nominal-adverbs. Nominal-adverbs are adjectival in meaning, but they do not conjugate when followed by copula *iru*.

15. a. *indta teru amaitiy-aaka iru-kkiR-atu*
this street quiteness_ADV is_it
‘This street is very quite’
- b. *raajaa ndeermai-y-aaka iru-kkiR-aan*
Raja honest_ADV is_he
‘Raja is honest.’

4.1.4. Agreement

Verbs, adjectives, and copulas show number, person and gender agreements.

16. a. *raajaa andta kaTitattaip paTittaan*

Raja that letter_ACC read_he

‘Raja read the letter.’

b. *aaciriyar raajaa andta kaTitatt-aip paTi-tt-aar*

teacher Raja that letter_ACC read_he (hon.)

‘Teacher Raja read the letter.’ (Respect for teacher Raja)

17.a. *raajaa iLamaiyaana-van*

Raja young_he

‘Raja is young.’

b. *aaciriyar raajaa iLamaiyaana-var*

teacher Raja young_he

‘Teacher Raja is young.’ (Respect for Teacher Raja)

18.a. *avaL azhak-aaka iru-kkiR-aaL*

she beauty-ADV be-PRE-she

‘she is beautiful’

4.1.5. Subjectless sentence

Tamil allows deletion of subjects and objects that are recoverable from linguistic or non-linguistic context. For example, observe the following sentences:

19.a. *varu-v-aan enRu ndinai-kkiR-een*

come_FUT-he COM think_PRE_I

‘I thought that he would come’

b. *ndaan puttakam vaangk-i un-akkut taru-kiR-een*

I book buy_VBP you_DAT give_PRE_I

‘I will buy the book and give it to you’

c. *ameerikkaavu-kkup pook-a virumpu-kiR-aay-aa* .

America_DAT go_INF want_PRE_Iyou-ICL

‘I want to go to America.’

d. *ameerikkaavukkup pooka virumpukiRaayaa?*

America_DAT go_INF want_PRE_you_ICL

e. *raajaavin viiTtukkup poona pootu avan angkillai*

Raja’s house_DAT go_INF time he there_not

‘When I went to Raja’s house, he was not there.’

The subjects are rather freely deleted because they are readily recoverable from agreement. Object are deleted as they can be recovered from discourse context.

In Tamil the subject NP is also an obligatory element in all sentences and that Tamil has, thus, a few types of subjectless sentences (Lehman, 1989: 175). The data which suggest that subject NP is not generated in the sentence structure do not involve simple, but complex sentences, in which clause is embedded as complement to a verb. Consider the following example:

20.a. *raja raaNiy-aic candti-kka neer-ndt-aan*

Raja-Rani-Acc meet-INF happen-PAS-it

‘It happened that Raja saw Rani

b. *raaNi ndalla-vaL poolat teri-kiR-aaL*

Rani nice-she seem-INF happen-PAS-it

‘It seems as if Rani is a nice one ‘

c. *raja varu-v-aan poolum*

Raja come-FUT- he seem-FUT-it

‘It seems as if Raja comes

That is to say that there are sentences in Tamil in which the verbal predicate takes only a sentential complement as its argument, but no subject NP of whatever sort, e.g. pleonastic elements like ‘it’ or ‘there’ in English.

4.1.6. Adpositions

Tamil, as an SOV language, displays all the characteristics that Greenberg (1963) has attributed to SOV languages. One of the characteristics is concerned with adpositions. Tamil adpositions are all postpositional. The following examples are the samples of adpositions classified according to their functions, excluding those that are used in connecting clauses.

21. Emphatic particles

a. *raajaav-um oru aRivaaLi*

Raja_EMP a genius

Raja, too, is a genius.”

b. *raajaa maTTum va-ndt-aan*

Raja only come_PAS_he

‘Only Raja came.’

22. Noun-coordinating particles

a. *raajaav-um raaNiy-um va-ndt-aarkaL*

raajaa_COR Rani_COR come_PAS_they

Raja and Rani came

raajaav-oo raaNiy-oo varu-v-aarkaL

Raja_DIS Rani_DIS

‘Either Raja or Rani will come.’

23. Case-marking particles

a. *raajaa raaNiy-uTan kaar-il tanjcaavu-ur-ilirundtu cennai-kkuc ce-nR-aan*

Raja Raani_with car_LOC Thanjavur_from cennai_DAT go_PAS_he

‘Raja went with Rani by car from Thanjavur to Chennai’

b. *raajaav-in tandt-ai cennai-kkuc ce-nR-aar*

Raja_GEN father Chennai_DAT go_PAS_he (hon)

‘Raja’s father went to Chennai.’

24. Sentence – Final Particles

a. *ndii anta puttakatt-aip paTi-tt-aay-aa?*

you this book ACC read_PAS_Q

‘Did you read this book?’

b. *ndaan indta puttakam munnaree paTittuviT-T-eeen enRu unniTam co-nn-eeen allavaa*

I this book already read_PAS_I COM you_to say_PAS_Iis- not-tag Q

‘I told you that I have read this book already, is n’t it’

c. *anda aaL aRivaaLitaan!*

that person genius_EXC

‘That man is genius!’

d. *ndii neeRRu paLLikkuTam var-a-villai, appaTittaan-ee?*

you yesterday school come_INF not, that-way_Tag-Q

‘You didn’t come to school yesterday, did you?’

Note that Tamil uses the sentence-final particles in forming interrogative sentences as seen in 24.a. The use of sentence-final question particles is a characteristic of postpositional languages, as observed by Greenberg: (Kuno,1978:80). Greenberg Language Universals 9: “With more than chance frequency, when question particles or affixes are specified in position by reference to the sentence as a whole, if initial, such elements are found in prepositional languages, and, if final, in postpositional languages, and, if final, in postpositional.”

4.1.7. Comparison of Inequality

Tamil adjective and nominal-adjectives do not inflect with respect to comparative and superlative degrees. Instead, they use optional degree adverbs such as *mikavum/kuuTutal* ‘more’ which appear to the left of the adjective. The postpositional particle *viTa/kaaTTilum* ‘than’ is used as a marker of comparison, with the standard with which the comparison is made preceding *viTa/kaaTTilum*:

25. a. *raajaavai viTa raaNi iLamaiyaanavaL*
 Raja_ACC COMP Rani young_she
 Rani is younger than Raja
- b. *indta vakuppil raajaataan mikavum iLamaiyaanavan*
 this class_LOC Raja-Emp very young_he
 ‘In this class, Raja is the youngest.’

The order of “Standard-Marker of comparison-Adjective” exemplified by 25.a. agrees with the following observation by Greenberg. Greenberg’s Language Universal 22: If in comparison of superiority, the only order, or one of the alternative orders, is standard-marker adjective, then the language is postpositional. With overwhelmingly more than chance frequency if the only order is adjective-marker-standard, the language is prepositional.

4.2. Nominal Phrases

Lehmann (1973:82) makes the following observation by his Structural Principle of Language: Modifiers are placed on the opposite side of a basic syntactic element from its primary concomitant. The above observation applies to Tamil as well as descriptive adjectives, demonstratives, numerals, and relative clauses all precede their head nouns, without exception.

Tamil does not have indefinite or definite articles. This does not mean, however, that nouns can be used freely both anaphorically and nonanaphorically. Observe the following sentences:

26.a. *ndeeRRu ndaan puttakakkaTaiyilirundtu puttakam vaangkineen. matiya uNaviRkkup piRaku puttakam paTitteen*

yesterday I bookstore_from buy_PAS_I. book lunch_DAT after book read_PAS_I

‘Yesterday, I bought a book at a Bookstore. After lunch, I read a book.’

The second sentence in 26.a. can mean only ‘I read a book’; it cannot mean ‘I read the book.’ In order to convey the latter meaning, one has to modify *puttakam* ‘book’ with a demonstrative adjective:

27.a. *matiya uNviRkup piRaku andta puttakattaip paTitteen*

dinner_DAT after that book read_PAS_I

‘After dinner, I read that book.’

The above does not mean, however, that Tamil uses a demonstrative adjective whenever English uses *the*. Observe the following sentences:

28.a. *ndeeRRu oru uyaramaana manitar-um kuLLamaana manitar-um enn-aip paar-kka vandt-anar. uyaramaana manitar tan kaiy-il uunRukool vaittiru-ndt-aar*

yesterday one tall man_CO short man_CO I_ACC see_INF come_PAS_they. tall man his hand LOC walking stick keep_PAS_he

‘Yesterday, a tall man and a short man came to see me. The tall man had a walking stick in his hand.’

In the second sentence, *uyaramaana manitar* ‘the tall man’ does not have *andta* ‘that’. In fact, in this context, it is not possible to use any demonstrative adjective.

4.2.1. Relative Clauses

Relative clauses in Tamil always precede their head nouns:

29. a. *andta aaL indta puttakatt-ai ezhut-in-aar*

that person this book_ACC write_PAS_he

‘That person wrote this book.’

b. *indta puttakatt-ai ezhut-in-a andta aaL*

this book_ACC write_ADJ that person

‘The person who wrote this book

30. a. *raajaa andta puttakatt-aip paTi-tt-aan*

Raja that book- ACC read- PAS-he

‘Raja read that book.’

b. *raajaa paTi-tt-a puttakam*

Raja read –PAST-RP book

‘the book that Raja read’

31.a. *raajaa andta aaL-uTan ceer-ndt-u paTi-tt-aar*

Raja that person-with join-PAST-VBP study-PAST-he

‘Raja studied together with that person.’

b. *raajaa ceer-ndt-u paTi-tt-a aaL*

Raja join-PAST-VBP- study_PAST_RPM person

‘the person with whom Taroo studied’

The following sentence 32b. is ungrammatical.

32. a. *raajaa andta aaL-uTan paTi-tt-aan*

‘Raja studied with that person.’

*b. *raajaa paTi-tt-a andta aaL*

‘the person with whom Raja studied’

32.b. is ungrammatical in the intended interpretation (it is grammatical if it is intended for ‘the person that Raja studied’) because the deleted particle *uTan* ‘with’ is not recoverable. In 32.b *ceerndtu* together makes it possible to supply this particle.

4.2.2. Genitives

Genitive expressions precede head nouns, as seen in the following:

33. a. *raajaav-in viiTu*

raajaa_GEN house

Raja’s house

b. *raajaav-in tandtaiy-in viiTu*

Raja’s father’s house

‘Raja’s father’s house’

In English, genitive expressions such as *the man I met yesterday's wife* are rather exceptional (cf. *the man I met's wife*). By contrast, in Tamil, such expressions are very common because the relative clause precedes the head noun, and hence the genitive marker *in* always follows the head noun of the relative construction.

34. a. *ndeeRRu candti-tt-a maintain-in manaivi*

yesterday meet_PAS_RPM man_GEN wife

‘the man whom I met yesterday’s wife’

b. *ndeeRRu ndaan candi-tt-a maintain-in manaivi veelai cey-kiR-a ndiRuvanatt-in talaivar*

yesterday I meet_PAS_RPM man_GEN wife work do_PRE_RPM institute_GEN head

‘the president of the company where the wife of the man that I met

yesterday is employed’

c. *neeRRu ndaan candi-tt-a maintain-in manaivi veelai cey-kiR-a ndiRuvanatt-in talaivar ezhut-iy-a puttakatt-in veLiyiiTTaaLar*

‘the publisher of the book that the president of the company where

the ‘wife of the man that I met yesterday is employed wrote’

Cleft branching constructions of the above type are extremely common in Tamil, and they do not cause any difficulty in comprehension.

4.2.3. Numerals and Quantifiers

Numerals are basically nouns that distinguished into cardinal and ordinal numerals. Ordinal numerals are derived from cardinal numerals by the addition of a clitic (Lehmann, 1989:111). Cardinal numerals occur as nominals. As such they occur, for example, as object NP inflected for accusative case, as nominal predicate, or as nominal argument of a postposition in the postpositional phrase.

35. a. *raajaa onR-ai maTTum cappiT-T-aan*

Raja one_ACC only eat_PAS_he

‘Raja ate only one’

b. *raajaa in vayatu muppatu*

Raja_GEN age thirty

'Raja's age is thirty'

c. *raajaa nduuRu-kku meelee eNN-in-aan*

Raja hundred_DAT over count_PAS_he

'Raja counted over one hundred'

As nominals, cardinal numerals also occur as noun modifiers. They occur in the same position as quantifiers do that is in the slot: ---+ Adj + N. Furthermore, they can also be transposed to the post-nominal position.

36. a. *raajaa aindtu ndalla caTTaikaL vaangk-in-aan*

Raja five nice shirts buy_PAS_he

'Raja bought five nice shirts'

b. *raajaa ndalla caTTaikaL aindtu vaangk-in-aan*

Raja nice shirts five buy_PAS_he

'Raja bought five nice shirts'

Ordinal numerals derived by means of the clitic *-aavatu* is nominal whereas the ordinal numerals derived by means of clitic *-aam* is adjectival. The former can occupy predicate position and can be adverbialized by *-aaka* (which occur before verb). Both the former and latter types of ordinal numerals can occur as a noun modifier.

37.a. *indta tokuti iraNT-aavatu*

this volume is two_ORD

'This volume is second one'

b. *rajaa iraNT-aavat-aaka va-ndt-aan*

Raja two_ORD_ADV come_PAS_he

'Raja came second'

c. *itu iraNT-aavatu tokuti*

this two_ORD volume

'This is the second volume'

d. *itu iraNT-aam tokuti*

this two_ORD volume

‘This is the second volume’

4.3. Verbal Phrases

4.3.1. Declarative, Interrogative, and Negative

Tamil distinguishes the following subtypes of interrogatives: (i) yes-no question, (ii) information or question word question and (iii) alternative questions. Yes-no questions make use of interrogative clitic *-aa* to a constituent, except modifiers (Lehmann, 1989: 232). The position of the clitic *-aa* indicates the focus of the question.

38. a. *raajaa raaNi-kkup paNam koTu-tt-aan-aa?*

Raja Rani_DAT money give_PAS_he_ICL

‘Did Raja give money to Rani?’

b. *raajaav-aa raaNi-kkup paNam koTu-tt-aan?*

Raja_ICL Rani_DAT money give_PAS_he

‘Is it Raja who gave money is Rani?’

c. *raajaa yaaru-kkup paNam koTu-tt-aan?*

rajaa who_DAT money give_PAS_he_ICL

‘Who did Raja give the money to?’

d. *raajaa raaNi-kk-aa paNam koTu-tt-aan*

Raja Rani-DAT_ICL money give_PAS_he

‘Is it to Rani Raja gave money?’

e. *raja raaNi-kkum paNam koTu-tt-aan*

Raja Rani-DAT money-ICC give-PAST-he

‘Is it money Raja give to Rani?’

The question word takes the truth of a proposition for granted and ask for particular information of the proposition. That is they interrogate only a constituent of the sentence. The interrogative word does not have to be preposed to sentence-initial position. This is a characteristic of SVO languages.

39.a. *raajaa yaar-aip paar-tt-aan?*

Raja who_ACC see_PAS_he

‘Whom did Raja saw’

b. *raajaa eppootu paar-tt-aan?*

Raja when see_PAS_he

When did Raja see?

c. *Raja engku paar-tt-aan*

Raja where see_PAS_he

Where did Raja see?

Negation in Tamil is expressed by the following three ways (Lehmann, 1989:228):

(i) Morphologically by a negative verbal suffix

40.a. *raajaa enn-aip paarkk-aamal/aatu poo-n-aan*

Raja I_ACC see_NEG go_PAS_he

‘Raja went without seeing me’

b. *ndii ingkee varaatee*

you here come_NEG_EMP

‘Don’t come here’

c. *ndaan paTikk-aat-a puttakam*

I read_NEG_RP book

‘the book which not read by me’

(ii) Lexically by a negative auxiliary verbs.

41.a. *raaja our aRivaaLi illai*

Raja a genius_not

‘Raja is not a genius.’

b. *rajaa viiTT-il illai*

Raja house_LOC be_not

c. *kaTavuL illai*

god be_not

‘God does not exist’

(iii) Syntactically by a negative auxiliary verb *illai* is added after a main verb in infinitive form.

42. a. *raaNi ndeeRRu varavillai*

Rani yesterday come_INF_be_not

‘Rani did not come yesterday’

b. *ndaan inRu paLLikkuTatt-iRku pook-a-villai*

I today school_DAT go_INF_not

‘I don’t go to school today.’

Tamil uses the periphrastic construction with the auxiliary *maaTTu* ‘do/will’ inflected for negative polarity (which is unmarked) to negate the future proposition.

avan viiTT-ukku vara-maaTT-aan.

he house-dat come-inf-do-neg-he

‘He will not come home.’

4.3.2. Reciprocal

Reciprocity refers to a clause in which two NPs both of which have multiple referents are interpreted as coreferential. One of the devices to indicate reciprocity is to mark one of the two co referential NPs with multiple referents. Tamil uses the same device as English does to mark reciprocity. The reciprocals co-occurrence of two case marked identical nominals can be represented as follows: *oruvar* + case...*oruvar* + case.

43.a. *raajaav-um raaNiy-um oruvarukkoruvar utavicey-t-anar*

‘Raja_COR raNi_COR each other help_PAS_they’

‘Raja and Rani helped each other’

b. *raajaav-um raaNiy-um oruvarai oruvar uukkuvittanar*

Raja_COR Rani_COR encourage_PAS_they

‘Raja and Rani encouraged each other.’

The noun-coordinating particle (*-um*) to and the comitative particle (*-ooTu/-uTan*) to are different.

4.3.3. Reflexive

Reflexivity may be defined syntactically as follows: reflexivity refers to a clause in which two noun phrases are interpreted as coreferential. Thus, the clause *John beat himself* is a reflexive construction since the subject NP *John* and the object NP *himself* are interpreted as coreferential. There are basically two devices to mark reflexivity:

(i) marking one of the two coreferential noun phrases e.g. by a reflexive pronoun

(ii) marking the verb by a verbal affix or use of auxiliary verbs

Tamil has a single reflexive tan ‘self’ for all persons and genders. In simplex sentences, reflexivization is triggered only by the subject of the sentence:

44. a. *raajaa raaNiy-ai tan viiTT-ilirundtu turatt-in-aan*

Raja Rani_ACC self house_ABL drive away_PAS_he

‘Raja drove away Rani from his (= Raja’s) house.’

b. *raaNi tan viiTT-ilirundtu raajaav-aal turattappaT-T-aaL*

Rani Raja_INS self house_ABL driven away_PAS_she

‘Rani was driven away by Raja from her (=Rani’s) house.’

c. *raaNi raajaav-aal tan viiTT-ilirundtu turattappaT-T-aaL*

‘Rani was driven away by Raja from his (=Raja’s) house.’

4.3.4. Compound verbs, Adjectives, and Nominal –Adjectives

Tamil is rich in compound verbal formation. There are two types of compounding: (i) combining a verbal form with another verbal form (ii) combining nominal form with verbal form (verbalizer).

45. Compounding verbals added to the Gerundive form of verbs

a. Verbal participle form of a verb + verb

paTikkat-toTangku ‘begin to read’

paTikka aarampi ‘start to read’

paTittu muTi ‘finish reading

paTittuk-koNTiru ‘continue to read’

paTittut-taLLu ‘read excessively’

b. Noun + verbalizer

candtoocap-paTu ‘be happy’

happiness-experience

utavi-cey ‘help’

‘help do’

A number of adjective compounds are made by reduplication. A combination of certain abstract noun and relative participle form of the verb *aaku* ‘become’ form a number of adjectives, to the extent that *aana* is now considered as an adjectivalizer.

46.a. Reduplicated adjective compound

paccai-paceel ‘greenish’

cekkac-ceveel ‘reddish’

veLLai-veLiir ‘whitish’

kannang-kareel ‘balakish’

b. Noun +aana

azhak-aana ‘beautiful’

inimai-aana ‘sweet’

teLiv-aana ‘clear’

No elements can be inserted between the non-finite form and the compounding verbals.

47. Compounding verbs added to the continuative Form of Verbs

paTikka muyal ‘try to read’

paTittu muTi ‘end up reading’

paTittukkoL ‘read (from the point of view of the agent)’

paTittukkoNTiru ‘is reading’

paTittuvai ‘read (from the point of view of a nonagent)’

Only certain particles (*um* ‘also’ *maTTum* ‘only’) can be inserted between the continuative form and the compounding verbs, as in *paTikka-vum muyal* ‘try also to read’, *paTikka maTTum* ‘only to read’.

4.3.5. Modality, Aspect, and Tense

The modalities are expressed by auxiliary verbs in Tamil and they occur after main verb unlike English in which the modals occur before the main verb. Formally, these auxiliary verbs can be distinguished into three groups. The first group involves three auxiliary verbs with defective morphology: *veeNTu*, *kuuTu* and *muTi*. As finite verbs these auxiliary verbs can only be inflected for third person, singular number and neuter gender. The second group consists of auxiliary which occur

as such with one inflected form only. These are the verb *aTTu* ‘join’ inflected for the portmanteau morpheme *-um* which incorporates ‘future tense and third person, singular number and neuter gender’ (which is reduced as *-TTum*) and *aaku* which is inflected as *aam* (<*aaku* + portmanteau *-um*) and *-aakaatu* (<*aaku*+neg+neuter). Finally, a third group of modal auxiliaries *poo*, *vaa*, *iru* and *paar* occur as finite verbs with all tense and pronominal suffixes. The following examples illustrate various ways in which Tamil express modality:

48. Internal obligation

raajaa ippootu viiTT-ukkup pooka veeNTum

Raja now house_DAT go_INF want_Fut_NEU

‘Raja must go home now’

49. Negation of external obligation

ndii inimeel indta marundt-ai caappiT-a veeNT-aam

you further this medicine_ACC eat_INF want_NEG_NEU

‘From now on you don’t need to take this medicine’

50. Circumstantial possibility

avan ingku var-ak-kuuTum

he here come_INF_join_FUT_NEU

‘He may come’

51. Negative obligation

avan ingku var-ak-kuuT-aatu

he here come_INF_join_NEG_NEU

‘He should not come’

52. Ability

avan-aal paTikk-a muTiy-um

he_INS read_INF end_FUT_NEU

‘He can read’

53. Third person hortative

raajaa ingkee vara-TTum

Raja here come_INF_agree_FUT_NEU

‘Let Raja come here’

4.3.6. Compound verbals representing the speaker’s attitude

Tamil is a language that often forces the speaker to express an attitude toward the action described in a sentence. The auxiliaries such as *tolai*, *pooTu*, *taLLu*, *kiTa*, *kizhi*, *poo* express speaker’s subjective evaluation, that is speaker’s personal opinion, of the event expressed by the clause (Lehmann 1989:222). Like other auxiliaries attitudinal auxiliaries too occur after the main verb.

53. i. Speaker’s antipathy towards the event expressed by the clause

a. *raajaa avaL-iTam ellaam coll-i-ttolai-tt-aan*

Raja she_to all say_PAS_VP loose_PAS_he

‘Raja told everything to her, damn it’

54. ii. Speaker’s positive or negative attitude towards the accelerated rate of the action expressed by the main clause

a. *avaL kuzhandtaikaL-aakkap peR-R-u taLL-in-aaL*

she children_ADV deliver_PAS_VP push_PAS_she

‘She went on giving birth children’

4.3.7. Passive and causative

Passive voice is expressed by the auxiliary verb *paTu* ‘experience’ added to the infinitive form of the main verb.

55.a. *raajaa pampaik ko-nR-aan*

‘Raja snake_ACC kill_PAS_he

‘Raja killed a snake’

b. *paampu raajaav-aal koll-a-ppaT-T-atu*

snake Raja_INS kill_INF_experience_PAS_it

‘The snake was killed by Raja’

Causative is expressed by the auxiliary *vai*, ‘put’ *cey* ‘do’ added to the infinitive form of a main verb.

56.a. *rajaa va-ndt-aan*

Raja come_PAS_he

b. *raaNi raajaavai var-a vai-tt-aaL*

Rani Raja_ACC come_INF put_PAS_she

‘Rani made Raja to come’

4.3.8. Order of Verbal Elements

We have already seen that, given a sequence of verbal forms, the right most element has a higher scope than the rest of the sequence. Thus, the sequence V + Causative + Passive is the passive of V + Causative (i.e., be caused to V’), while the sequence V + Passive + causative is the causative form of V + Passive (i.e., ‘cause to be V-ed’). Similarly, the sequence V + Incipient + Causative means ‘cause to begin to V’, while the sequence V + Causative + Incipient means ‘begin to cause to V’. Whether a given sequence of verbal forms is acceptable or not is determined by various syntactic and semantic factors. For example, observe the following sentences:

57.a. *raajaav-aal paan-ai uTaikk-a-ppT-T-atu*

Raja-Ins pot-Acc break-INF PAS-it

‘The pot is broken by Raja’

b. *raajaav-aal paan-ai uTaikk-a vaikk-a-ppaT-T-atu*

Raja pot-Acc break-INF keep_INF_PASS_PAS_IT

put-INF- Experience-it

The pot is made to be broken by Raja

c. * *rajaav-aal paanai uTaikk-a-ppaT-a vai-tt-atu*

57.a. has the causative auxiliary preceding the passive (i.e. *uTaikka vaikkappaTa* ‘be caused to be broken’), while 57.b. has the same morphemes in reverse order (i.e. *uTaikkappaTavai* ‘cause to be broken’).

4.4. Adverbs

4.4.1. Types of Adverbs

Except certain adverbs like *angku* ‘there’, *ingku* ‘here’, and *engku* ‘where’, other adverbs are different forms of nouns and verbs. They are produced as the function and/or meanings of the nouns and verbs and their inflected forms are changed and a few are lexicalized as adverbial suffixes. As this is the case, adverbs can be considered as a secondary formation due to change in the function of the inflected and non-inflected forms of nouns and verbs.

The grammatical literature distinguishes between simple and derived adverbs in Modern Tamil. Derived adverbs are said to be formed from nouns by the suffixation of the so-called adverbializing suffix *-aaka*

58.a. *raaNi azhak-aakap paaTu-kiR-aaL*

Rani beauty_ADV sing_PRE_she

‘Rani sings well’

b. *raajaa veekam-aaka ooTu-kiR-aan*

Raja fastness_ADV run_PRE_he

‘Raja Runs fast’

In the same way a number of uninflected and inflected noun and verb forms are syntactically reanalysed to a closed set of postpositions in Modern Tamil. So are also a number of noun and verb forms categorically reanalysed to a closed set of adverbs. There is even an overlap of word forms which are postpositions and adverbs.

59. Uninflected noun forms (+euphonic clitic *-ee*)

a. *raajaa meelee paRa-ndt-aan*

Raja up fly_PAS_he

'Raja flew up'

b. *raaNi etiree va-ndt-aaL*

Rani opposite come_PAS_she

'Rani came opposite'

60. Nouns inflected for locative case

raaNi ndaTuv-il ndiR-kiR-aaL

Rani centre_LOC stand_PRE_she

'Rani stands at the centre'

Tamil is rich in onomatopoeic adverbs. Onomatopoeic elements added to the verbal participial form (*enRu*) of the verb *en* 'say' form a number of adverbs: *paTaar-enRu* 'loudly' *tiTiir-enRu* 'suddenly'. There are reduplicated compounds of onomatopoeic and non-onomatopoeic type (e.g. *mella mella* 'slowly', *paTapaTavenRu* 'fast').

4.4.2. Sentential Adverbs

A number of inflected noun and verb forms are syntactically reanalysed to sentential adverbs or adverbial connectives. Hereby, they occur in a pre-sentential position and express the semantic relation between two sentences, e.g. cause, contrast, etc. For example contrast can be expressed by the following words: *appiTiyum* 'nevertheless', *aanaalum* 'but, however', *irundtaalum*, 'however', *etukkum* 'anyhow'.

61. *en-akku kaal-il vali. appaTiyum naan ooTTappandtayatt-il kalandtuko-NT-een*

I_DAT leg_LOC pain. Nevertheless I running race_LOC participate_PAS_I

‘I have pain in my leg. Nevertheless I participated in the running race’

4.4.3. Some characteristics of Adverbs

In Tamil, adverbs are placed to the left of the constituents that they modify:

62.a. *ndaan puttakatt-ai aarvam-aakap paTi-tt-een*

I book_ACC enthusiasm_ADV read_PAS_I

‘I studied the book enthusiastically’

b. *mika metuv-aaka ndaTa*

more slow-ADV walk

‘Walk more slowly.’

Adverbs can occur in any phrasal position before a verb.

63.a. *raajaa raaNi-kkup paNam taaraaLam-aakak koTu-tt-aan*

Raja Rani_DAT money lavish_ADV give_PAS_he

Raja gave Rani money lavishly’

b. *raajaa raaNi-kkut taaraaaLam-aakap paNam koTu-tt-aan*

c. *raajaa taaraaLam-aaka raaNi-kkup paNam koTu-tt-aan*

d. *taaraaLamaaka raajaa raaNikkup paNam koTuttaan*

4.5. Compound and complex sentences

4.5.1. Coordination and Subordination

Two clauses are combined together in coordination by the use of coordinating elements and in subordination with the use of non-finite and infinite verb forms in combination with or without

subordinator. The non-finite forms occur as infinite clause, verbal participial clause, conditional clause and adjectival clause.

Co-ordination refers to the process of conjoining two or more elements of equal categorical status of the three syntactic levels – word, phrasal, sentential – to one conjoined structure, in which all elements have equal status or rank. Thus, two nouns (N) can be co-ordinated to a noun coordination: $N \rightarrow N + N$, two noun phrases (NP), and two clauses (S) can be co-ordinated to a sentence co-ordination: $S \rightarrow S + S$. Words, phrases, and clauses are co-ordinated by co-ordinating morphemes referred to as co-ordinators, which express the semantic (logical) connections between elements conjoined. Tamil employs two types of co-ordinators. In one type of coordination the clitics *-um* ‘and’, *-oo* ‘or’, and *-aa* ‘whether; or’, occur after each element conjoined.

64.a. *raajaav-um raaNiy-um cennai-kkuc ce-nR-aarkaL*

Raja_CO Rani_CO Chennai_DAT go_PAS_they

Raja and Rani went to Chennai’

b. *raajaav-oo raaNiy-oo cennai-kkuc cel-v-aarkaL*

Raja_CO Rani_CO Chennai_DAT go_FUT_they

‘Raja or Rani will go to Chennai’

In another type of coordination free forms, such as *allatu* ‘or’, *illaiyaanaal* ‘or’ and *aanaal* ‘but’, that is co-ordinating conjunctions occur in-between the elements conjoined.

65.a. *raajaa allatu/illaiyaanaal raaNi cennai-kkuc cel-v-aarkaL*

Raja or Rani Chennai_DAT go_FUT_they

‘Either Raja or Rani will go to Chennai’

b. *raajaa aluvalakattiRkuc ce-nR-aan. aanaal veelai ceyavillai*

Raja office_DAT go_PAS_he. but work do_INF_not

‘Raja went to office, but did not work’

Tamil has a large system of complex sentence formation involving subordination. Subordination takes place by embedding or adjoining a clause into another clause. When a clause is embedded into or adjoined to the structure of another clause in Tamil, it either embedded as co-constituent or complement to the left side of a head constituent: S-HEAD, a process which it is referred here as complementation, or it is embedded into a noun phrase as sole constituent of the noun phrase – a process commonly referred as nominalization.

In complementation, the categories which occur as head of a complement in Tamil are nouns (N), noun phrase (NP), postpositions (P), verbs (V) and the clause (S) itself. Thus, a clause can be embedded into a noun phrase as complement to the left side of a head noun or head noun phrase:

66.a. *raajaa ndeeRRu va-ndt-a raaNiyiac candti-tt-aan*

Raja yestreday come_PAS_RPM Rani_ACC meet_PAS_he

‘Raja met Rani who came yesterday’

b. *raajaa vandta pinnar raaNi vandtaaL*

Raja come_PAS_ADJ after Rani come_PAS_she

Rani came after Raja’

c. *raajaa pazham caapiTTuviT-T-ut tuungk-in-aan*

Raja eat_PAS_VP sleep_PAS_he

‘Raja slept after having eaten banana’

d. *raaNi tuungkiviT-T-aaL enRu raaja co-nn-aan*

Rani sleep_PAS_she COMP Raja say_PAS_he

‘Raja said that Rani had slept’

4.5.2. Indirect Statements

The most common form of reporting an utterance in Tamil is the embedding of a clause (i) with the complementizing verb form *enRu* before a verb of verbal utterance such as *col* ‘say’, or *keeL* ‘ask’ or (ii) without complementizing verb form before the verb *en* ‘say’.

67.a. *raajaa ndaaLai uurukkut tirumpuvaan enRu raaNi connaaL*

Raja tomorrow village_DAT return_FUT_he that Rani say_PAS_she

‘Rani said that Raja would return to village tomorrow.’

b. *raaNi raajaa ndaaLai uur-ukkup poo-kiR-aan en-R-aaL*

Rani Raja tomorrow village_DAT go_PRE_he say_PAS_she

‘Rani said that Raja would go to the village tomorrow’

c. *raajaa vandtuviT-T-aan-aa enRu raaNi keeT-T-aaL*

Raja come_PAS_he_ICL that Rani ask_PAS_she

‘Rani asked “Did Raja come”

d. *kaalaiyil ezhu-ndt-u paTippatu ndallatu en-R-aar*

morning wake up_VP studying good_it that he say_PAS_he

‘He said it is good to study waking up in the morning.

4.6. Grammatical Processes

4.6.1. Pronouns and Deletion of Noun Phrases

Pronouns are a closed subset of the parts of speech of nouns. The property which groups pronouns as a subset of nouns is largely syntactical. There are two sets of pronouns: neutral pronouns which are nominative and oblique pronouns which are stems to which case suffixes can be added. There are pronouns for first person, second person and third person. All the pronouns have singular and plural forms. Third person pronouns are distinguished for proximity/remoteness, gender and status. Different forms of second and third persons are used depending upon the relative status of the speaker and the hearer, and upon the speech level.

Pronouns is used as a substitute of a noun if uttered previously in a clause or sentence.

68.a. *raaNi tan kaNavan-ai paar-tt-aaL*

Rani self husband-ACC see-PAS-he

‘Rani saw her husband’

b. *raajaa 'ndaan ndaaLai cennai-kku varu-v-eeen' enRu avan ndaNpan-iTam kuuR-in-aan*

Raj I tomorrow Chennai _DAT come_FUT_I that his friend_TO say_PAST_he

‘Raja told his friend that he would come to Chennai tomorrow’

Noun phrases are deleted when they occur repeatedly (see the chapter on ‘Coordination and Subordination in English and Tamil’). This is called gapping. Gapping is found both in English and Tamil.

69.a. *raja cappiT-T-u viT-Tu aluvalakattiR-kup puRappaT-T-aan*

Raja eat_PAS_VBP leave-PAS_VBP

‘After taking food Raja stated to go office’

b. *ndaan enn-uTaiya ndaNpan-aic candti-tt-eeen*

I I_GEN friend_ACC meet_PAS_I

‘I met my friend’

c. *ndii poo*

you go

ndiingkaL poo-ngkaL

you (hon/pl) go_you(hon/pl)

‘You (hon/pl) go’

d. *avan ndeeRRu uur-ukku va-ndt-aan*

he yesterday village come_PAST_he

‘He came to village yesterday’

e. *avar ndeeRRu uur-ukku va-ndt-aar*

he (hon) yesterday village_DAT come_PAS_he (hon)

‘He (hon) came to the village yesterday’

4.6.2. Deletion of Verbs

English has a syntactic process called verb phrase deletion that deletes a verb phrase, leaving behind an auxiliary verb or infinitival *to*. For example, observe the following sentences:

70. i. Speaker A: Did you go to Boston yesterday?
Speaker B: Yes, I did. (go to Boston yesterday deleted)
- ii. Speaker A: Who was killed in the accident?
Speaker B: John was. (killed in the accident deleted)
- iii. Speaker A: Do you want to go there?
Speaker B: Yes, I want to. (go there deleted)

Similar type of deletion of verbs can be seen Tamil discourse too.

- 71.i. Speaker A: *raaNi va-ndt-aaL-aa?*
Rani come_PAS_she_ICL
- ii. Speaker B: *aamaam 'yes'*
- iii. Speaker A: *raaNiy-ai maNa-ndt-atu yaar?*
Rani_ACC marry_PAS_NOM who
Who married Rani?
- iv. Speaker B: *raajaa 'Raja'*

Deletion of verbs occurs in co-ordination and subordination too. (see chapter 6). Repeated verb or verbal phrases are likely to be deleted in Tamil as well as in English.

- 72.a. *raajaav-um raaNiy-um paLLikkuc eenRaarkaL*
Raja_CO Rani_CO school go_PAST_they
Raja and Rani went to school.
- b. *raajaa pat-in-aan atupool raNiy-um*

Raja sing_PAST_he likewise Rani_CO

‘Raja sing and Rani as well’.

4.6.3. Scrambling

Word order in Tamil sentences is relatively free. It is possible to move a constituent within a clause; but one cannot move a constituent of a subordinate clause into some acceptable positions in a matrix sentence. It is possible to embed a subordinate clause immediately after the subject of the matrix clause. The following examples will illustrate this.

73.a. *raajaa ndaaLai uur-ukku varu-v-aan enRu raaNi raamuv-iTam kuuR-in-aaL*

Raja tomorrow village_DAT come_FUT _he that Rani Ramu_ to say_PAS_she

‘Rani told Ramu that Raja would come to village tomorrow’

b. *raaNi raajaa ndaaLai uur-ukku varu-v-aan enRu raamuv-iTam kuuR-in-aaL*

c. *raaNi raamuv-iTam raajaa ndaaLai uur-ukku varu-v-aan enRu raaNi raamuv-iTam kuuR-in-aaL*

d. *?raaNi raamuv-iTam kuuR-in-aaL raajaa ndaaLai uur-ukku varu-v-aan enRu*

e. **raaNi ndaaLai raamuv-iTam raja uur-ukku varu-v-aan enru kuuR-in-aaL*

f. **raNi raja uur-ukku raamuv-iTam varu-v-eeen enRu kuuR-in-aaL*

4.6.4. Foregrounding

Tamil has free word order. The elements in a sentence such as subject, object, indirect object, adverb, etc. can be positioned anywhere before the finite verb. The placing of a element in the word initial position gives it prominence in a sentence.

74.a. *raaNi raajaav-ai ndeeRRu aluvalakatt-il ca-ndti-tt-aaL*

Rani Raja_ACC yesterday office_LOC meet_PAS_she

‘Rani met Raja in the office yesterday’

b. *raajaav-ai raaNi ndeeRRu aluvalakatt-il candti-tt-aaL*

ndeeRRu raaNi raajaav-ai aluvalakatt-il candti-tt-aaL

aluvalakatt-il raaNi raajaav-ai ndeeRRu candti-tt-aaL

‘Rani met Raja in the office yesterday’

There is a type of topicalization in Tamil which involves the occurrence of NP in a sentence in peripheral topic position marked with the form *enRaal* and followed by a sentence which contains a pro-form referring to that NP (Lehmann 1989:370). The following sentences will exemplify this.

75.a. *raajaa enRaal avan col-v-atu cariyaaka irukk-um*

Raja say_CON n he say_FUT-NOM right be_FUT

‘If it is Raja, what he said must be right’

b. *raajaa koTu-tt-a paricu enRaal atu ndall-at-aakat taan irukk-um*

Raja give_PAS_RPM gift say_CON it good_it_ADV be_FUT

‘If it is the gift given by Raja, it must be good’

c. *cimlaa enRaal atu mikavum kuLiraaka irrukk-um*

Simla say_CON it very cold be_FUT

‘If it is Simla, it must be very cold’

4.6.5. Clefting

What is called clefting or pseudo-clefting in English is realized in Tamil by two-fold operation (Lehmann, 1989: 368).

(ii) nominalization of the finite verb and

(ii) marking of the emphasized constituent, which must be an immediate constituent of the clause, by the emphatic clitic *-taan*.

Optionally the emphasized constituent can be moved over the nominalized verb. The following sentences will exemplify clefting. The sentences in a. are unclefted version of a clause, and the sentences in b. are clefted version.

Cleft of subject NP

76.a. *raajaa ndeeRRu uur-ukku va-ndt-aan*

Raja yesterday village_DAT come_PAS_he

Raja came to the village yesterday'

b. *raajaataan ndeeRRu uur-ukku vandtatu*

Raja_EMP yesterday village_DAT come_PAS_NOM

'It was Raja who came to the village yesterday'

77.a. *raajaa raaNiy-aip paarkk-a aluvalakattiR-kuc ce-nR-aan*

Raja Rani_ACC see_INF office_DAT go_PAS_he

'Raja went to the village to see Rani'

b. *raajaa raaNiy-aip paarkk-at-taan aluvalakattiR-kuc ce-nR-atu*

Raja Rani_ACC see_INF_EMP office_DAT go_PAS_NOM

'It was to see Rani Raja went to the office'

Tamil cleft sentences lack a dummy subject corresponding to the English *it*, and require the main clause verb to be nominalized by the nominalizer *atu*. Lack of It-clefting (as well as of *It*-extraposition) is a characteristic of SOV languages and of topic-prominent languages.

4.7. Summary

The chapter aims at listing the characteristics of Tamil as an SOV language. First the structure of simple clauses is described. Under this heading the basic word order, word order in colloquial speech, simple sentence types, agreement, subjectless sentences, adpositions, and comparison of inequality are discussed. Nominal phrases are described next. Under this title, relative clauses, genitives and numerals and quantifiers are discussed. Verbal phrases are described next. Under this title declarative, interrogative and negative, reciprocal, reflexive, compound verbs, adjectives, and nominal adjectives, modality, aspect and tense, compound verbals representing the speaker's attitude, passive and causative and order of verbal elements are discussed. Next is about adverbs. Under this title types of adverbs, sentential adverbs, and some characteristics of adverbs are described. Next is about compound and complex sentences. Under this title coordination and

subordination, indirect statements and questions and quotatives are discussed. Next is on grammatical process. Under this title pronouns and deletion of noun phrases, deletion of verbs, scrambling, foregrounding, and clefting are discussed.

CHAPTER 5

RELATIVE CLAUSE IN ENGLISH AND TAMIL

5.0. Introduction

Relative clause is a noun-modifying construction resulting in this generation of a higher level noun phrase. Being one of the most productive syntactic processes in natural languages, relative clause has attracted both intensive and extensive work by scholars over a long span of the history of linguistics. In the words of Stockwell (1977: 163), 'Relative clauses are one of the most extensively studied and best understood of the syntactic structures found in natural languages.' The Relative Clause Festival celebrated by the Chicago Linguistic Society in 1972 and the wide range of data and in-depth analyses reported there about relative clauses of different languages of the world (see Peranteau et al., 1972) have in a way revealed the importance of this structure in the study of language and linguistic theory. In the context of discussing the suitability of relative clause structure in studying universal grammar, Bach (1974) has mentioned three factors in its favor, which are as follows:

- (i) It is relatively easy to identify relative clauses cross linguistically and they are constructions in which some form of dependent sentence is used to specify more closely the interpretation of head nominal expression;
- (ii) The kinds of relative clauses encountered in the languages of the world seem to be quite limited and closely related to general characteristics of language in terms of Greenberg's typology of basic word-order; and
- (iii) With apparently very few exceptions every language exhibits such structures.

These important factors make relative clause structure suitable for a theoretical contrastive study, based on word order typology.

Relative clause at the level of surface structure shows wider variations (though not unlimited variations) across languages. TG grammars have attempted to capture its commonness at the level of syntactic deep structure. A widely accepted deep structure of relative clause is represented by the phrase structure rule $NP \rightarrow S NP$ or $NP S$ allowing a variation with respect to the positioning of relative clause sentence to the left or right of the head NP. This variation leads to a typology of

relative clauses across languages with a two-fold classification into prenominal and post nominal relative clauses. This typology of relative clauses correlates with the typology of basic word-order of languages proposed by Greenberg (1963). By the correlation between relative clause types and word-order types, languages of SOV word-order generally prefer pronominal relative clauses and those of SVO and VSO word-orders postnominal relative clauses. Prenominal relative clauses are usually derived by deletion transformation (e.g. Tamil and Japanese) and postnominal relative clauses by movement (e.g. English and French) or pronominalization (e.g. Arabic and Hebrew). Both movement and deletion transformations are sensitive to the general constraints proposed by Ross (1967) whereas pronominalization is not.

However, there are exceptions to the above generalizations both within a language and across languages showing their limitations as universal properties of relative clauses. Relative clause constructions modifying generic and quantified NPs are found to pose problems for the above deep structure (cf. Annamalai, 1969; Stockwell et al. 1973.). Languages like Walbiri do not seem to have relative clauses in the sense that there is no NP- embedded structure at the surface level of these languages (cf. Downing, 1978; Comrie, 1981). Persian, a SOV language with postnominal relative clauses and Mandarin Chinese, a SVO language with pronominal relative clauses are well-known cases of exceptions to the generalization correlating the typologies of relative clause and basic word-order (cf. Downing, 1978). Chinese pronominal relative clauses, moreover, make use of backward pronominalization rather than deletion transformation (cf. Maxwell, 1979). Prenominal correlative relative clauses occurring marginally in languages like Kannada and Tamil do not involve deletion and consequently they do not obey the general constraints (cf. Nadkarni, 1970; Ramasamy 1981). The constraints on movement apply only to the chopping type of movement and not to the copying type of movement, which leaves a pronominal trace. The chopping type of movement is attested in certain dialects of English (cf. Comrie, 1981). The above limitations are partly the limitations of the TG grammatical models that were available in sixties and employed in the analyses of relative clause structure during that period. It will be shown at later stages of this study that some of these limitations are rectifiable in the light of the development that have taken place within the TG framework through seventies and eighties, the summum bonum of which has been made available in the government-Binding Theory, discussed in great details in Chomsky (1981).

Due to the limitations mentioned above several studies on relative clauses, specifically the typological ones have side-tracked the TG approach and instead have based their generalizations

essentially on semantic as well as surface-structure properties of relative clauses. There are three possible universal semantic properties that are closely associated with relative clauses. They are (i) co-referentiality, (ii) topic or theme and (iii) modification. These semantic aspects will be briefly dealt with in their order below.

Co-referentiality is nothing but identical specificity. Any two terms to be coreferential, they have to be at least (+ specific). All constructions involving a relative clause are characterized with coreferential NPs. An NP in the relative clause (relative NP) cross-refers to an NP in the higher level sentence (antecedent or head NP) linking in effect the clause and the sentence by co-referentiality. A relative clause is thus assigned with a cross-referring or binding role. It is essential that at least one of the two coreferential NPs is overtly expressed in relative clause constructions. The different possibilities of coreferential NPs being omitted are illustrated below with examples from English. (Brackets are used in the examples to indicate the boundaries of relative clauses. Also in the examples, the coreferential NPs are underlined).

1. The *novel* (I read ϕ) was interesting
2. I haven't found ϕ (*what* I was looking for)
3. They boy chose the *doll* (*which* cost the most)

In example 1 relative NP is omitted, in example 2 antecedent NP is omitted and in example 3. both the co-referential NPs are maintained. These different possibilities as it will be seen later on in typological studies, will lead to different strategies of relativization across languages.

Topic or theme refers to an NP about which a statement is made. A relative clause is always a statement about the relative NP and thus about its antecedent NP (cf. Schachter, 1973; Kuno, 1976). Kuno (1976) has argued with evidences from Japanese that the constraints on relativization are in fact constraints on what can serve to topic or theme. In support of this generalization, Downing (1978: 379) has recorded as follows: 'Parallels between relativization and thematization in a number of languages seem to bear out this hypothesis, and I know of no counterexamples.'

Modification is a functional semantic property by which the modifier limits the meaning of the modified. Relative clause modified an NP by limiting its scope of reference. An NP refers to a set of individuals having certain properties, and relative clause narrows the set to the subset having

the property attributed by it. This is a property only of restrictive relative clauses as opposed to non-restrictive relative clauses are illustrated in examples 4 and 5 respectively.

4. The professors who are absent minded are good

5. The Professors who are absent minded are good

Restrictive and non-restrictive relative clauses differ in making logically contradictory presuppositions. Thus, examples 4 and 5 presuppose respectively 6 and 7.

6. Some professors are absent minded

7. All professors are absent minded

6 and 7 are logically contradictory propositions. Whenever 6 is true, 7 will be false, and whenever 7 is true, 6 will be false. In terms of the referential structure of NPs, the distinction of restrictive vs non-restrictive relative clauses is 'solely a reflection of referential quantification-All or SOME' (Lytle, 1974:41). However, non-restrictive relative clauses are not as prevalent as restrictive relative clauses across languages. Some languages apparently have no non-restrictive relative clauses. In others they are syntactically quite distinct (e.g. English) and in some others restrictive and non-restrictive relative clauses are syntactically indistinguishable (e.g. Tamil) (cf. Downing, 1978).

The three semantic properties discussed above are not, however, properties exclusively of relative clauses. Co-referentiality of NPs, overlaps with syntactic processes like pronominalization and co-ordination. Topicalization is the characteristic of passive and cleft-sentence formations. Noun modification includes adjective, which do not always have their source in relative clauses. Therefore, relative clauses cannot be studied solely on the basis of their semantic properties.

5.1. Universal typology

Downing (1978) in his paper "Relative Clause structures" discusses in details the universal properties and tendencies of relative clause construction. His ideas observations and generalizations are discussed under this heading. This gives us a background to talk about the typology of Relativization ion English and Tamil.

Linguists tend to use the term ‘relative clauses’ as if it referred to a universal grammatical entity. The following questions on relative clause have been raised: ‘what are the syntactic properties of relative clauses in language x?’ or ‘do relative clauses in x precede or follow the head of the constructions? We need to know how a construction in some language can be identified as a relative clause.

5.1.1. Syntactic properties

Downing (1978: 377) lists the following as syntactic properties of relative clause (RC) constructions found in various languages:

- a. A RC contains a finite verb.
- b. The verb of a RC assumes a distinctive nonfinite form.
- c. A RC contains a pronoun co referential with a noun that immediately precedes the RC.
- d. No nominal in the RC is co referential with a preceding noun.
- e. A RC together with a nominal expression forms a noun phrase (NP) constituent.
- f. A RC is the sole constituent of a NP.
- g. A RC. Is not a constituent of a NP?
- h. A RC begins (or ends) with a distinctive marker.
- i. A RC contains a marker that is linked by concurrence with a nominal marker outside the clause.
- j. The internal structure of a RC is indistinguishable from that of (some) non relative clauses.

Obviously, none of these syntactic properties is universal since as universals they are inconsistent with one another. RC’s in various languages do exhibit these diverse syntactic properties.

Transformational grammars provide a means of characterizing the basic oneness of variety of syntactic forms having a common meaning in a single language. This is done by positing a single basic abstract form (a class of ‘deep structures’) from which the various syntactic manifestations (‘surface structures’) can be derived by general rules. All surface forms sharing a derivation from deep structures with certain common properties can be described as syntactically of the same type. e.g. as being relative clauses.

But the deep structures posited in order to account for surface forms in various languages differ from language to language at least with respect to the positioning of relative clauses in larger structures. Attempts to justify a common deep syntactic representation for relative clauses in all languages (e.g. Bach 1965) have not escaped arbitrariness, at least with respect to ordering of elements. Not only do relative clauses precede other elements within a single NP in some languages and follow in others in some languages relative clauses do not enter into nominal constituents at all the surface level, so that there is no motivation for deriving them from an embedded position in deep structures in those languages. These facts suggest that a universal characterization of the notion, ‘relative clause’ can only be given in semantic terms (Downing, 1978:377).

5.1. 2. Semantic characterization

A relative clause never stands alone as a complete sentence; it is always linked semantically at least, to a noun phrase that is part of another clause. This linking is achieved through a semantic property of all constructions called relative clauses that has already been alluded to a relative clause incorporates, as one of its terms, a nominal which is co referential with a nominal outside of the clause. Either nominal need be expressed overtly, although presumably one or the other must.

8. The car (I saw?) was green.
 9. I haven’t found? (What I was looking for)
 10. The girl chose the ring (which cost the most)
- (Downing, 1978:378).

Sentence 8-10 illustrate various possibilities with regard to omission of the credential NP’s in English.

We may refer to the relative clause as the relative NP (Rel NP) and the co-referential nominal outside the relative clause as the antecedent NP (Ant NP). In some cases, however, Rel NP may be coreferential with an entire clause, as in 11 in which case may speak of an antecedent clause.

11. They locked up all the children, which pleased their parents.
- (cf. Downing, 1978:379).

A semantic property of relative clauses, noted by Gundel (1974) and emphasized by Kuno (1973, 1976:420) is that a relative clause must be statement about the Rel NP and thus about its antecedent. Kuno has supported this ‘Thematic constraint’ with evidence that in Japanese, a clause can be a relative clause just on case Ant NP represents as theme; furthermore, relative clauses have the form of clauses from which Rel NP as theme has been deleted. There are various constraints concerning which terms can serve as Rel NP. Such as Ross’s coordinate structure constraint complex NP constraint (Ross 1967) and the Keenan-Comrie Accessibility Hierarchy (Keenan and Comrie 1972) are then, according to Kuno, constraints on what can serve as theme. Parallels between relativization and thematization in a number of languages seem to bear out this hypothesis.

A third essential semantic property of RC’s is the functional property of modification. This is a property of only some RC’s those referred to adjectival or restrictive as opposed to non-restrictive or appositive a relative clauses. This is the property that distinguishes example 12 (restrictive) from 13 (non-restrictive).

12. The children who have green tickets will be admitted free.

13. The children, who have green tickets, will be admitted free.

(cf. Downing, 1978:379).

Restrictive relative clauses express an assertion about some individual or class, with the function not of conveying new information but of restricting the reference of Ant NP to those possible referents of which that assertion is believed to be true whereas in 6. It is stated that any and all children will be admitted free. The non-restrictive clause who have green tickets in 6 expresses an independent (though downgraded) assertion concerning the same unrestricted set of children.

The properties of non-restrictive RC’s are quite different from those of restrictive RC’s across languages. Some languages apparently have no non-restrictive RC’s in others they are syntactically quite distinct in others restrictive and non-restrictive RC’s are syntactically indistinguishable. In some languages RRC’s are never incorporated syntactically into the clause containing the antecedent. Thus, we have just three universal defining properties of RC’s, all semantic: Co reference between terms inside and outside the clause (Red NP and Ant NP); the notion that the RC is an assertion about Red NP (that Red NP is its theme); and the relation of modification which holds between a restrictive relative clause (RRC) and its antecedent (cf. Downing, 1978:180).

5.1.3. Syntactic universals

So far it has been claimed that while a universal semantic definition can be provided for the notion ‘relative clause’, there is no single set of syntactic properties by which RC’s can be identified as a universal syntactic category. But this is not to say that there are no true universal generalizations to be made concerning the surface syntactic form of RCs. We can ask questions such as these (Downing, 1978:380-81).

- (a) Do all languages have relative clauses?
- (b) If there are no formal syntactic properties common to all relative clauses (for the sentence structures in which they occur) are there clearly definable language types, within which relative clauses have common syntactic properties?
- (c) Can the form of relative clauses have common syntactic properties of that language?
- (d) Are there in the absence of strictly universal properties, structural tendencies which may still be of interest in our attempts to understand how languages are structured?

Answers to the questions just posed may be expressed as universal statements classified into four major statement types. (cf. Fergusson 1971) (Downing, 1978:381).

- (a) Absolute universals (AU):
All languages have property X.
- (b) Implicational universals (IU):
If a language has property Y, it has property X.
- (c) General tendencies (GT):
Most languages have property X.
- (d) Implicational tendencies (IT):

If a language has property Y, It is likely to have/usually has property X.

While universals of types a and b are clearly the most interesting, strong tendencies in language structure are also of interest to the linguist in that they demand explanation and they may suggest the possibility of discovering conditioning factors in terms of which they may be restated as true implicational universals. Furthermore, typologies can be constructed on the basis of

generalizations of these sorts: a language type is a class of languages of which a set of implicational universals and implicational tendencies (restated in absolute form) are true, the larger the set of statements, the more interesting is the type.

There seems to be but one absolute generalization that is justified with respect to relative clause (Downing, 1978:381):

A. All languages make use of restrictive relative clauses (AU) as semantically defined.

Present evidence suggests, however, that a number of implicational generalizations can be formulated in terms of correlations between the position of the RRC in its sentence and its internal structure, on the one hand, and between its position and the dominant word order type of the language in question on the other (Downing, 1978:382).

Prenominal – occurring in the position of S in the configuration [...S...NP] NP where S is the relative clause and the included NP is the head or modified nominal (Ant NP).

Post nominal – occurring in the position of S in the configuration [NP S ...] NP

Together, these two types in which S is adjoined to the head NP may be referred to as ad-relatives (following Andrews 1971).

Replative – occurring in place of Ant NP with no surface manifestation of Ant NP.

Left-extraposed – occurring outside of and preceding the clause containing the modified nominal.

Together, these latter two types will be referred to as co-relatives. This latter term is to be distinguished from the term correlative (relative clause) which refers to a particular syntactic marking of some left-extra posed co-relative clauses,

5.1.4. Postnominal Relative clauses

5.1.4.1. Correlation with word- order type

The strong correlation between verb-object (VO) word order and the use of postnominal RRCs is well-known. English is basically an SVO language in which RRCs are preposed. Tamil, an SOV language, has postposed RRCs. The tendency, however, is strong enough to be worth including among over generalizations concerning relative clause formation (cf. Downing, 1978:383):

B. With few exceptions, a language has post nominal restrictive relative clauses and only if in the basic word order of the language verbs precede their objects (IT).

5.1.4.2. Internal RC structure in SVO languages

Schwartz (1971: 142) has provided the following classification of post nominal RRCs on the basis of

- (a) presence versus absence of an introductory particle (complementizer), symbolized below by *that*
- (b) presence versus absence of a clause-initial relative pronoun, symbolized by WH; and
- (c) presence or absence of a (non-relative) pronoun (PRO) within the clause.

The list of languages exemplifying the above classes is (Downing, 1978:384):

i.	N [S... ϕ ...]	Dyirbal
ii .	N that [S ... ϕ ...]	Vietnamese, Hausa
iii .	N that [S...PRO...]	Hebrew, Arabic, Akan
iv .	N [S WH ...]	Latin and derivatives
v .	N. that [S...PRO...]	Indonesian, Hungarian
vi .	N WH that [S... ϕ ...]	Spoken Hebrew
vi .	N [S WH...PRO...]	Rumanian

In many languages, of course, more than one of these types is found. Modern English uses both ii and iv alternatively, but it also uses i. Just in case Rel NP is not the subject. Black English uses iii and allows i even when Rel NP is the subject, as in example 7 and 8, from Tyson (1976).

14. Now and I have one nephew that he stays with us. (Type iii)
15. Porky is the little bitty one look almost like Florrie. (Type i)

5.1.4.3. Initial relative particles.

In all types of postnominal RRC's other than i, a marker of some kind is present at the beginning of the clause. In types ii and iii, this is an invariant particle (often, historically at least, a demonstrative form). For example, English *that*. The same kind of particle is found in combination with a relative pronoun in types v and vi.

5.1.4.4. Relative pronouns

In type vi as well as in types v and vi, a special prenominal form of Rel NP appears in clause-initial position. This relative pronoun is commonly either identical with interrogative pronouns or a demonstrative form. For example, English *which*, *who*.

5.1.4.5. Pronoun retention

When there is no initial relative pronoun (and even, in rare cases, when there is) Rel NP may either be deleted or retained in a non-initial position. However, a proform of Rel NP in non-initial position always has a non-distinctive weak pronominal form and is positioned where such a pronoun would appear in a simple declarative sentence i.e., there is no movement assignable to relativization. Many languages delete Rel NP in some positions and retain a proform in other positions, obligatorily or optionally (cf. Downing, 1978:385). In some SVO languages, post nominal RRC's are also marked in some additional way, but these markers are in most cases applicable to other subordinate clauses as well.

5.1.4.6. No connective

Post nominal RRCs of type i are the least common. They are used in Standard English, but only if Rel NP is not the subject and only as an alternative to type ii and iv. However, that in Black English dialect type i clauses are possible even with the deletion of a relative NP which is the subject of the clause.

Relativization by marking the verb seems to be the exception for post nominal RRCs in SVO languages but is found commonly in other RRC types. There are two additional cases in which postnominal RRCs in SVO languages are regularly marked by means of Rel NP deletion plus verb marking. In cases of object relativization the subject, prefix on the verb prevents ambiguity. But if Rel NP is the subject then only the suffix particle would prevent the verb from being interpreted as the main verb when the head is subject of its clauses (cf. Downing, 1978:387).

5.1.4.7. Transformational processes and permitted combinations

The common properties of postnominal RRC's in SOV languages can be described in transformational terms as the result of the application or non-application of three largely independent processes of relativization (cf. Downing, 1978:388):

- (a) Insertion of an initial relative particle,
- (b) Copying of Rel NP is a relative pronoun form (sometimes as part of an NP that contains it) in clause-initial position,
- (c) Deletion of Rel NP.

It can be assumed that the assignment of an unstressed anaphoric form to Rel NP, and in some languages its deletion, follow from general principles of pronominalization, which are not part of the relativization process. The seven types of postnominal RRCs listed above result, then, from the application of the following combinations of the rules just given (Downing, 1978:388).

- i. c only (accompanied by verb marking in languages that exhibit no other type)
- ii. a and c
- iii. a only
- iv. b and c
- v. b > a,c
- vi. a > b,c
- vii. b only

Thus, of the logically possible combinations of these three processes, only two are not found; there are no SVO languages which use none of these relativization processes, and there are none of the form (Downing, 1978:388).

- viii. NP that WH ...PRO...
- (or) NP WH that ...PRO...

The least common type, (i) is the one which uses neither of the devices that serve to separate the relative clause from the immediately preceding antecedent, but even in type (i) there is a tendency to use distinctive verb marking and to position the verb at the beginning of its clause (cf. Downing, 1978:388).

5.1.4.8. Internal relative clause structure in verb-initial languages

In a strict verb-initial language there can be no initial nonverbal relative marker, a verb-initial language nevertheless may allow particles and even pronouns to precede the verb. It appears that the type i relatives are most common in verb-initial languages with at least one other type vi possible whereas i is least common in SVO languages. This difference can perhaps be explained on the basis of perceptual ambiguity: in SVO languages a verb in an unmarked RRC modifying the subject could be misinterpreted as the predicate of the main clause, but not in a VSO language, where initial position clearly identifies the main verb. (*compare the man O robbed the bank*) *escaped with the escaped man (robbed the bank)*.

5.1.4.9. Postnominal relative clauses in verb final languages

Postnominal RRCs are rare in verb-final languages. SOV languages uses post nominal as well as correlative and extra posed RCs. In Persian, when RRCs are postnominal, all of these relativization processes of SVO languages may be used even if the basic word order is SOV. the man-REL OBJ-PART saw-you the man whom you saw.

5.1.5. Prenominal relative clauses

5.1.5.1. Correlation with word-order type

The well-known correlation between verb-final word order and pre-positioning of relative clauses and other modifiers are illustrated using different languages by Downing (1978). The generalization can be stated as follows (cf. Downing, 1978:391):

N. With few exceptions, RRCs are not postnominal if in the basic word order of the language verb precedes their objects.

O. with exceptions, RRCs are pronominal only if in the basic word order of the language verbs follow their objects.

5.1.5.2. Prenominal relative participle

5.1.6. Replative Relative clauses

In all the cases surveyed thus far, Ant NP is essentially unaffected by relativization, while Rel NP is obligatorily either pronominalized or deleted. Many languages allow the head of an ad-relative clause to be omitted when it has no specific semantic content (e.g. such heads as *that* and *something* in English). In English the headless relative clause is fully grammatical only with an inanimate subject or object Rel NP and only with the special relative pronoun form *what* (ever) (Downing, 1978: 397).

16. Something that John said annoyed her.
17. That which John said annoyed her.
18. *That John said annoyed her.
19. * Which John said annoyed her.
20. What John said annoyed her.
21. What goes up must come down.
22. *Who borrowed my pen didn't bring it back.
23. I don't like who you meet there.
24. *Where we met was beautiful.
25. *I don't like when the class starts.

There are no languages with post nominal RRC's that allow the head to be deleted or pronominalized while Rel NP is retained as a full lexical NP. There are also no SVO languages that

exhibit such constructions. Some verb-final languages, however, allow Ant NP on a preceding RC is retained in its full lexical forms. The RC cannot be classified as either prenominal or post nominal. The essential form is

(xiii) [NP [s.....Rel NP....V]]

5.1.7. Correlative relative constructions

Except for the arguably interrogative pronoun *mi'n* in Bambra, the data so far have supported the generalization that relative pronouns, and in particular pronouns of interrogative form, are found only in postnominal RC's. It is also the case that the three types of relativization discussed so far, the relative clause has preceded or followed or replaced Ant NP within a NP constituent.

In the so-called correlative structure, the RC precedes the entire clause containing the modifier NP. In the typical case, neither Rel NP nor Ant NP is deleted; rather they are both marked by correlative morphemes. These are typically an interrogative pronoun or adjective attached to Rel NP and a demonstrative attached to Ant NP. Schwartz (1971) represents this arrangement in his classification of RC types as follows (Downing, 1978: 399).

xiv [S...WH...] TH (N)...

It is possible for nominal head in one clause or the other (or both if nonspecific) to be omitted, and some language permit deletion of the entire Ant NP under some circumstances, giving the form shown above.

xv. [...WH...] ...?...

Many language permit a correlative structure to be used when the reference to the coreferential NP's is nonspecific, i.e., in just those cases where most languages seem to allow replacive RC's. English, for example, has sentences such as those in 26 and 27, where b and c cases are derivable from the case by general principles of topicalization. (Downing, 1978: 399).

26.
 - a. She gets whatever she asks for.
 - b. Whatever she asks for she gets. (type xv)
 - c. Whatever she asks for, that she gets. (type xiv)
27.
 - a. We liked what we saw.
 - b. What we saw, that we liked.
 - c. What we saw, that we liked.

Indefinitives with lexical heads also seem to be generally tolerated in English.

28.
 - a. She gets whatever toy she asks for.
 - b. Whatever toy she asks for she gets.
 - c. Whatever toy she asks for, that she gets.

But the construction with a definite lexical head is not permitted in many languages, including English (29).

29.
 - a. *We liked what movie we saw.
 - b. *What movie we saw, we liked.
 - c. *What movie we saw, that we liked.

5.2. Relative clause in English and Tamil

A contrastive analysis of relative clauses in Tamil English has been studied extensively by Ramasamy (1988). He has studied relative clauses of English and Tamil in typological and TG perspectives. The present study makes use of his observations and arguments.

Here we are chiefly concerned with the relative clauses of English and Tamil from the point of view of word order typology. Relative Clauses in English and Tamil have been studied both intensively and extensively in the light of the Downing's (1978) and other investigations on "Relative Clause Structure".

English relative clauses with respect to their form, position and distribution have been traditionally studied by Jespersen (1927) followed by Curme (1931). Almost all generative

grammarians who have studied English syntax have also studied relative clauses (to mention only a few, Smith, 1964; Chomsky, 1965 and 1968; Ross, 1967; Karttunen, 1968; Kuroda 1969; Lakoff, 1970; Postal, 1971; Thompson, 1971). All these studies have controversially approached the problems pertaining to the deep structure, transformational derivation and constraints of English relative clause formation. Several such studies have been critically reviewed in Stockwell, et al. (1973). The syntactic issues pertaining to English relative clauses have taken a different dimension after the advent of X bar syntax and modular theories of Government and Binding (cf. Chomsky, 1977 and 1981; Jackendoff, 1977; Bresnan and Grimshaw, 1978; Riemsdijk and Williams, 1986).

Due importance has been given in Tamil to the study of relative clauses through a continuous history of more than 2000 years of Tamil grammatical tradition. Relative clause in Tamil is denoted by a non-finite form of verb, where the relative participle marker *a* is affixed after past and present tense markers with a ϕ variant for future tense (eg. *paaTi-tt-a*, *paTi-kkiR-a* and *paTi-kkum- ϕ* , the verb root *paTi* meaning 'read'). The relative participle, which is always followed by a noun, has been named *peyarencukilLavi* by Tolkaappiyar (300 B.C.) and *peyareccam* by Pavananti (1300 A.D), both the terms meaning 'noun expectant'. Tolkaappiyar (300 B.C.) has insightfully listed nouns in six casual relationships (place, object, time, instrument, subject and action) as relativizable, omitting nouns of two casual relationships (purposive and resultive) as nonrelativizable. The commentators of Tolkaappiyam (Tolkaappiyar, 300 B.C) and Nannuul (Pavannanti, 1300 A.D) have debated at great length nouns of what casual relationships are relativizable and what are non-relativizable. Certain issues pertaining to the form and distribution of Tamil relative participles (or clauses) have been touched upon by the Missionary grammarians (cf. Caldwell, 1856; Pope, 1885 Arden, 1942). A taxonomic approach to the study of relative participles been tried with no obvious advantage by Zvelebil (1957, 1958 and 1962). Analysis of Tamil relative clauses through TG grammar for the first time has been started by Agesthalingom (1967) using the framework of Chomsky's syntactic structures (Chomsky, 1957). All these studies beginning from Tolkaapiyar (300 B.C) to Agesthalingom (1967) have been critically examined and their inadequacies pointed out by Annamalai (1969) from a post Aspects of TG perspective. The Ph.D. dissertation on 'Adjectival clauses in Tamil' by Annamalai (1969) is a milestone in the study of Tamil relative clauses. In this study, relative clauses have been differentiated from the complement adjectival clauses, and the various constraints pertaining to relative clause formation have been extensively studied.

Contrastive study of Tamil and English relative clauses has been undertaken rigorously by Ramasamy (1988). He has studied it from both typological and transformational grammar (TG) perspectives. Here in this chapter mostly typological perspective is taken up which is the concern of this research work. Salient features on TG perspectives are also discussed here. From a typological perspective, a contrastive analysis of syntactic constructions like relative clauses between English, an SVO language with rigid word order and Tamil, a SOV language with a relatively flexible word order is likely to contribute to the study of linguistic universals and language typology. In contrastive studies usually, individual languages will be described in a uniform theoretical framework followed by comparisons by way of pointing out similarities and differences. With regard to the study of relative clauses between English and Tamil, it is felt that separate descriptions for the two languages would be a repetition since such descriptions already exist in one form or another in both the languages. So is the case with just listing similarities and differences between Tamil and English relative clauses. From the studies available on English and Tamil relative clauses one could cull out the similarities and differences between relative clauses of both the languages without difficulty. As for instance, one could easily show that the deep structure of Tamil relative clause is NP → S NP whereas it is NP → NP S for English, movement applies to English relative clauses while deletion applies to Tamil relative clauses, and so on. Such statements are dispensed with in this typological study. The purpose of this theoretical contrastive analysis is, however, to see how English and Tamil relative clauses behave alike or differently in both typological and generative grammar perspectives.

Based on the discussions made above the following types of relative clause structures can be listed for English and Tamil. This list reveals the difference between the relative clause structures of English from the point of view of typology.

I. Prenominal relative clause.

Internal structure: Tamil

30. [ndaan vaangk-iyā-] peena azhakaan-atu

I buy_PAS_RPM pen beautiful_it

‘The pen I bought was beautiful.’

II. Postnominal Relative Clause (cf. Downing, 1978)

Internal Structures: English

- i. N [S...?...]
- ii. N that [S...?...]
- iii. N that [S...PRO...]
- iv. N [S WH.....]
- v. N [S WH...PRO]

31. The girl [I met ? yesterday] left this evening.

32. The girl that [[I met ? yesterday] left this evening.

33. Now and I have one nephew that [he stays with us]

(Black English, Downing, 1978:284)

34. The girl [whom I met yesterday] left this evening.

35. This is the road [which I don't know where it leads]

(Non-standard English, Comrie 1981:133)

III. Replative Relative Clause

Internal structure: Tamil:

[NP[S...participial noun]]

36. [*veelai-kkup poo-n-a-van*] *innum var-av-illai*

work_DAT go_PAS_RP_he yet come_INF_not

‘One who went to work has not yet come back’

Internal structure: English:

[NP[S WH...]]

37. [What goes up] must come down.

(Downing,1978:397)

IV. Left- extraposed Relative Clause

Internal structure: English

- i. [S...WH(N)] TH...
 - ii. [S...WH(N)] ... ?...
 - 38. [Whatever [toy] she asks for] that she gets.
 - 39. [Whatever [toy] she asks for] she gets.
- (Downing, 1978:400)

Internal Structures: Tamil

- iii. [S WH(N)...V_INDEF.CLIT] TH(N)...
- iv. [S WH(N)...V_COND. CONCESS] TH(N)...
- v. [S ...(Rel NP...V_TAG] TH(N)...

40. [ramyaa [endtap puttakatt-ai /et-ai] keeTTaaLoo] [andta puttakatt-ai /at-ai] ndaan koTutteen.

Ramya [which book_ACC] ask_PAS_she_INDEF.CL [that book_ACC] I gave.
'I gave [the book] that Ramya asked'.

41. ramyaa [endtap puttkatt-ai/ et-ai] keeT-T-aalum [anta puttakatt-ai/ at-ai] ndaan koTu-p-eeen.

Ramya [which book_ACC/which_ACC] ask_PAS_COND.CONCESS [that book_ACC/that_ACC I give_FUT_I

I shall give [whatever book/ whichever] Ramya asks

42. [pooTTiyil [oru peN] mutalil va-ndt-aaL-ee/allavaa] andtap peN/avaL en makaL

Competition one girl first come_PAS_she_TAG that girl/she my daughter

'The girl who came first in the competition is my daughter'

V. Right extraposed Relative Clause

43. The man came back [who you said had been trying to see you about helping his find a home for his cat]. (Downing, 1978:405)

44. raamu [veelai-kkup poo-n-avan] innum varavillai.

Ramu work_DAT go_PAS_RP_he yet come-INF-not.

'Ramu who went to work has not yet 'come back'

The most prevalent and also the core correlative clause construction in Tamil is represented in the example (30). It is the characteristic of pronominal relatives of SVO languages. The relative NP is deleted along with its case (and postpositions) and the relative marker is suffixed to the verb in the relative clause. Tamil follow essentially the above properties with slight formal variations in relative marking. In Tamil, the verb in the relative clause becomes non-finite after suffixing the relative marker.

In English, almost all possible structural types of postnominal relative clauses are found. The most common relative clause construction in English is represented by type ii as exemplified in (34). In this type the relative NP is converted into a special pronominal form called relative pronoun (WH) and moved to the clause initial position.

The relative clause types involving a relative particle involve relative particle insertion and relative NP deletion or pro nominalization. In English, these are used as alternative to the ones involving relative pronoun. Relative particle replaces the relative pronoun, a common transformational process for all types of postnominal relative clauses. The verb in all types of post nominal relative clauses is generally found to be finite.

In Tamil, the head NP in one of its pronominal forms is attached to the relative particle and the relative NP is deleted (cf. example 36). The replacive relative clause in Tamil is found to share all its syntactic properties with its prenominal counterpart (cf. Agesthalingom, 1967; Annamalai 1972), but for the absence of an independent lexical head NP in the surface structure. In traditional linguistic analysis the structure V-TENSE-RPM-pro has been always recognized as a word and a grammatical category called as participial noun.

In English, the replacive clause has been variously called ‘substantive relative’ (Curme, 1931), ‘primary relative’ (Jespersen 1927), ‘headless relative’ (Andrews 1975) and ‘head free or free relative’ (Bresnan & Grimshaw, 1978). Special relative pronouns like *what* and *whatever* are made us of and these are analyzed with indefinite heads as something which and anything which respectively. The replacive clause in English, just like Tamil, shares many of its syntactic properties with its postnominal counterpart (cf. Bresnan & Grimshaw, 1978). In all languages where the replacive relative clause is found to occur, it remains only as an alternative to the corresponding ad-

relatives. This makes one to question whether the replacive relative should be treated as an independent type of relative clause at all.

Co-relatives have been classified into left extraposed and right-extraposed relative clauses by Downing (1978) only with respect to their positions in the surface structure. The term ‘extraposed’ does not refer to the transformational process, although it is true even in this sense for English co-relatives. Co-relatives is distinctive from other types of relative clause in retaining both the head NP and the relative NP at least in their pronominal forms. The left extraposed co-relative of type IV i in English is illustrated by example (38). Both the head NP and the relative NP are retained in their pronominal forms. The lexical head is optionally retained after the indefinite relative pronoun. In type IV ii with the example (39) the pronominal form that is however is deleted. In English, left extraposed co-relatives are possible only with indefinite co-referential NPs. They are derivable from the corresponding replacive relatives through the principles of topicalization. For instance, examples 38 and 39 can be derived from the sentence; she gets (whatever (toy) she asks for, which represents a replacive relative clause in English.

Downing (1978:400) has generalized that “If a language has correlative relative clause constructions, it does not have prenominal ad-relative clauses”. In contradiction to this generalization, Tamil a SOV language with prenominal ad-relative clauses occurring predominantly makes use of the correlative relative clauses marginally. Example (40) illustrates the correlative clauses (type IV iii) in Tamil. Interrogative adjective precedes the relative NP and the remote demonstrative adjective the head NP. When the coreferential NPs are indefinite, the adjectival forms may be replaced by their respective pronominal forms. The finite verb of the relative clause is specially suffixed with an indefinite clitic *-oo*. In an essentially conditional concessive meaning, type IV iv correlative relative clause is used (cf. example 41). In this construction, the occurrence of head NP along with its prefixing demonstrative adjective is optional and the past tense verb of the relative clause is suffixed with the conditional concessive morpheme *-aalum*. In Tamil, there is also a third type of left-extraposed co-relative construction (cf. IV v example 42) distinct from the two types of correlative relative clauses described above. In this type of co-relative, the relative NP is preceded by an indefinite quantifier and the head NP by the remote demonstrative adjective. The occurrence of relative NP along with its preceding indefinite quantifier is optional. The finite verb of the relative clause is suffixed with the tag morpheme *-ee* (in both spoken and written Tamil) or followed by the particle *allavaa* (in written Tamil). Lakshmi Bai (1983) who calls this co-relative type as affixal

relative clause (following, of course, Annamalai (1969)), has recorded that in child language acquisition this type of relative clause emerges earlier to the prenominal and correlative types. The functional value of the left extraposed co-relative constructions is that they can occur even in contexts where the prenominal and replacive relatives cannot. The co-relatives do not obey the general constraints which the prenominal and replacive relatives do (cf. Annamalai, 1969 & 1972 & Ramasamy, 1981).

The right-extraposed relative clause is not a distinctive type as such. It has no internal structure of its own as has been already mentioned. The right-extraposed relative clause in English is illustrated in the example (43). The relative clause is essentially the postnominal one (type iv). It takes a position after the main clause instead of taking a position immediately after the head NP. How far it can be away from the head NP depends on the length of the intervening material and the possibility of ambiguity in identifying the head NP (cf. Downing, 1978). In Tamil, as shown by the example (44), the replacive relative clause takes a position to the right of the head NP. Annamalai (1972) has explained that such constructions are the result of the prenominal relative clause being flipped after the head NP and nominalized just as the numeral and quantifier adjective (*e.g. oru paiyan > paiyan oruttan* ‘a boy’). The right extraposed relative in Tamil (example 45) is thus derived from prenominal relative (example 46) as illustrated below:

45. [cennai-kkup poo-n-a peN] innum tirump-av-illai
Chennai_DAT go_PAS_RPM girl yet come back_INF_not

Flipping nominalization:

46. andtap peN [cennai-kkup poo-n-aaL]. innum tirump-av-illai
that girl Chennai_DAT go_PAT_she yet return-not
‘The girl who went to Chennai has not yet come back’

The above discussion on positional and structural typology of relative clauses shows in essence that pre-nominal relative is the most basic type for SOV languages and postnominal relative for SOV and VSO languages, with a few exceptions. The replacive relatives and right-extraposed co-relatives are derivatives of either of the above. Correlative relative clauses (left-extraposed co-relatives) are most prominent in SOV languages with no pronominal relatives although they are

marginally used in SOV languages with pronominal relatives as a functional alternative. Prenominal relatives are formed out of deleting the relative NP and adding a relative marker to the verb of the relative clause. Postnominal relatives are the result of WH-movement (chopping or copying) in SVO languages. In VSO languages postnominal relatives are formed out of deletion or pronominalization of relative NP and insertion of a relative particle. In correlative relative clauses both the head NP and the relative NP are normally retained in their full lexical forms with their case and postpositional markings.

Downing (1978:411) summarizes his findings as follows. In all languages some clauses function to restrict the reference of a nominal in another clause. In some cases the modifying (restrictive relative) clause is positioned before or after the clause containing the modified nominal and may be syntactically indistinguishable from other semantically subordinate clauses in the same position. If the relative clause precedes the coreferential NP's in the two clauses they are frequently marked by correlative morphemes. Languages that use correlative constructions of this sort have OV word-order and may also have relative clauses that replace or follow the modified nominal other OV languages, especially third of consistent OV typology, usually have pronominal relative clauses, typically marked by a relative suffix on the verb and by deletion of Rel NP, but Ant NP may be deleted instead of Rel NP, so that the relative clause in effect replaces the head nominal.

In VO languages relative clauses usually follow ant NP in an embedded position or are extra posed to the right. Relativization involves pronomilization or deletion of Rel NP, and especially in SVO languages, a clause – initial connective particle or relative pronoun. If no relative marker appears in initial position in the clause, then either the subject or the verb is in initial position, if the verb is initial it usually bears a relative marker.

The present form of generalizations serves as a summary of observations on the nature of relative clauses across languages, with which the data of additional languages may be compared. As such generalizations are made as they afford an increasingly solid empirical basis for the formulation of explanatory principle in functional and psychological terms.

5.3. Summary

A long introduction on relative clause is given in the beginning. This is followed by an elaborate description on universal typology of relative clause. Under this heading syntactic properties of relative clause, semantic characterization of relative clause, syntactic universals of relative clause, postnominal relative clause, prenominal relative clause, replacive relative clause, and correlative relative constructions are discussed. This is followed by relative clause in English and Tamil. The commonness and divergence between relative relative clauses in English and Tamil are elaborately studied under this heading.

CHAPTER 6

CO-ORDINATION AND SUBORDINATION IN ENGLISH AND TAMIL

6.0. Introduction

Just as words and phrases form the constituents of the clause rank, so too clauses themselves can combine in several ways as the constituents of the sentence. The idea of the sentence, however, is a difficult one for grammar for many reasons. First, when linguists think of language, they tend to think of sound. Sound (speech) is the primary mode of communication in language. And people do not speak in sentences. People speak in words, and phrases, and clauses. Look for examples at this sequence of clauses in English and Tamil (More or less the equivalents of English sentences are given for Tamil for the sake of comparison here and elsewhere.).

1. [1] I got very upset [2] because they would not stop talking [3] I eventually had to leave.

[1] *ndaa mikavum cangkaTamaTaindteen* [2] *eenenRaal avarkaL peecuvatai nidRuttavillai*

[3] *iRutiyil ndaan angkirundtu pooka veeNTi vandtau.* (Tamil equivalent)

Notice that in transcribing this bit of speech we have no difficulty in determining the constituent words, phrases, or even the clauses that exist within this example. However, it is much more guess-work to determine where the sentences are, especially without the aid of intonation. If we wished, we could punctuate these clauses very differently, creating different sentences:

2.a. I got very upset, because they would not stop talking. I eventually had to leave.

b. *ndaan mikavum cangkaTamaTaindteen, eenenRaal avarkaL peecuvatai nidRuttavillai.*
iRutiyil ndaan angkirundtu pooka veeNTi vandtau. (Tamil equivalent)

2.a. I got very upset. Because they would not stop talking, I eventually had to leave.

b. *ndaan mikavum cangkaTamaTaindteen. eenenRaal avarkaL peecuvatai nidRuttavillai,*
iRutiyil ndaan angkirundtu pooka veeNTi vandtau. (Tamil equivalent)

The idea of the sentence is a product of a tendency to think primarily of written language, where standardized writing systems articulate the conventions associated with the written sentence.

Thus, many grammarians prefer to use a more inclusive, more general term while describing the grammatical relationship that holds between two or more clauses - a *clause complex*. For our purposes, though, we can continue to use the term sentence as long as we remain aware of the limits and biases implied by the more common term.

Sentences are subcategorized by the number and type of clause relationships they exhibit. The first distinction we should make is between the simple and the complex sentence. The simple sentence has but one clause; the complex sentence has more than one clause. The complex sentence is further distinguished by the type of grammatical relationship that holds between the clauses. If the grammatical relationship is paratactic, the clauses are coordinated. If the grammatical relationship is hypotactic, the clauses are subordinated.

Parataxis is the grammatical arrangement of "equal" constituents, clauses in this case. The word parataxis literally means 'equal' (*para*) 'arrangement' (*taxis*). Parataxis is the hallmark of coordination. In most cases, the equality of the clauses is evident both grammatically and semantically. Coordination can link constituents at any rank. It creates parallel grammatical structures - structures that are identical in function and usually form as well. And coordination holds each of the parallel structures at the same grammatical rank (Lakoff 1971 and Martin 1983). Consider the sentences in (3) through (5) below.

3. a. I have a story. This story has ruined my life.

b. *en-akku oru katai iru-kkiR-atu. indta katai en vaazhkaiky-ai azhittuviT-T-atu.* (Tamil equivalent)

I_DAT one story be-PRES-it. this story-ACC ruin-PAS-it

4. a. I have a story, and this story has ruined my life.

b. *en-akku oru katai iru-kkiR-atu, maRRum andta katai en vaazhkaiky-ai azhittuviT-T-atu* (Tamil equivalent)

I_DAT one story be-PRES-it, and this story-ACC ruin-PAS-it

5. a. I have a story; this story has ruined my life.

b. *en-akku oru katai iru-kkiR-atu; indta katai en vaazhkiay-ai azhittuviT-T-atu* (Tamil equivalent)

I_DAT one story be-PRES-it; this story-ACC ruin-PAS-it

In sentence (3), the two simple sentences (each with one clause) are not overtly linked. Should writers wish to express the link between the two sentences - a link of addition - they can choose overt markers of coordination (such as the conjunction *and*) or the semicolon. The use of a conjunction (such as *and, but, or, nor, for, so, yet*) is called *syndetic* coordination, as in 4. The absence of the coordinator creates *asyndetic* coordination, as in 5. The use of a coordinator creates what the traditional grammars call a "compound" grammatical structure.

The sentences in 3 through 5 may seem synonymous, but there are subtle, yet significant, differences in meaning. The coordinators themselves create different semantic links between the clauses (Hoey 1986, Hoey and Winter 1986). For example, look at the sentence in (5) through (10):

6. Sandy left early, *and* Liz followed. [addition]

7. The committee felt obligated, *but* the chairperson did not. [contrast]

8. The children should leave, *or* I will. [alternative]

9. Emily does not want to see the doctor, *nor* does Liz. [negative alternative]

10. Liz drove very carefully, *for* the traffic was unusually heavy. [reason]

11. Neither side made a convincing argument, *so* the committee decided to postpone its decision. [result]

12. The college anticipated the budget cuts, *yet* it still needed to cut several student programs. [concession]

Now some might think that asyndetic coordination, as in (5), must be identical in meaning to the use of the two separate sentences, as in (2), since no coordinator is present to add a new bit of meaning. However, the implied connections between clauses that are juxtaposed can be just as significant.

Consider Caesar's famous use of asyndetic coordination when he juxtaposed these three short clauses and, in the process gave us an insight into the egomaniacal soul:

13. *veni, vidi, vici* ("I came, I saw, I conquered.")

By the use of asyndetic coordination, Caesar can suggest that the effort he expended on conquering of his territories and enemies was no greater than the effort he expended on simply arriving and observing. Coordination suggests parallelism, an idea that could not be conveyed by three separate, independent sentences in (13).

Coordination and subordination are processes used by languages to combine units to make other units. They are part of the basic efficiency of language through which simple units like phrases and the simple sentence are re-cycled to make longer and perhaps more complex units. Coordination and subordination can have similar meanings (*but* and *although* are quite like, for example, in their "concession" meaning), but they are syntactically different processes used to create sentences (and utterances) with different structures. Coordination is a process for putting units of various types into parallel relationships--multiple units are combined on the same level of the sentence. Using the central coordinating conjunctions *and*, *but*, and *or*, we can put together many different kinds of combinations--packages of nouns, verbs, adjectives, predicates, and whole clauses.

Coordination is a term in grammatical analysis to refer to the process or result of linking linguistic units which are usually of equivalent syntactic status, e.g. a series of clauses, or phrase, or words. (In this respect, it is usually distinguished from subordinate linkage, where the units are not equivalent.) Co-ordinate clauses are illustrated in the sentence *John waled and Mary ran*: the marker of linkage is *and*, a coordinating conjunction (or coordinator). Constructions may also be analysed as co-ordinate without any explicit marker (a phenomenon sometimes referred to as 'asyndetic coordination') as in *There are an awkward, depressing silence*, where the 'coordinative' role of the two adjectives can be tested by insertion of *and* between them.

Hypotaxis, on the other hand, is the arrangement of "unequal" constituents. The word *hypotaxis* literally means 'beneath' (*hypo*) 'arrangement' (*taxis*), and hypotaxis forms the basis of subordination. The inequalities between hypotactic clauses are evident both grammatically and semantically. The subordinate structure takes on the grammatical function of subject, object, complement, or adverbial in the main clause. The subordinate clause is overtly marked as a

subordinate structure, often with a subordinator like *if, since, that, when, whatever, while, who, whoever*, etc.

Subordination is a term used in grammatical analysis to refer to the process or result of linking linguistic units so that they have different syntactic status, one being dependent upon the other, and usually a constituent of the other; subordinate is sometimes contrasted with superordinate. (In this respect, it is usually distinguished from co-ordinate linkage, where the units are equivalent.) Subordinate clauses are illustrated in the sentence *John left when the bus arrived*: the marker of linkage is *when*, a subordinate conjunction (or subordinator). A wide range of subordinators exists in English, e.g. *although, since, because, while, after*.

Coordination is the process of combining ideas of equal importance by means of coordination conjunctions or correlatives. In subordination, on the other hand, those ideas considered less important than the main idea of the sentence are expressed in modifying or dependent constructions. These dependent constructions are grammatically subordinate to the main clause, which expresses the dominant idea. Coordination and subordination use conjunctions to show a relationship between independent and dependent clauses. A clause is just a part of a sentence. An independent clause is one that can stand alone or in other words could be considered a logical sentence by itself. A dependent clause is just the opposite and cannot stand alone; it requires another clause to be a logical thought.

In English, coordination is the relationship between two equal independent clauses. It usually requires a comma and one of seven common conjunctions. Each of the seven common conjunctions has a type of use in its sentence (cause, addition, alternative, contrast, and consequence). Following is the list of coordinators and the type of their use in sentences.

For – Cause

And – Addition

Nor – Alternative

But – Contrast

Or – Alternative

Yet – Contrast

So – Consequence

e.g.

14. Raja was fixing his bike and his watching television last night.
15. My nephew cannot solve basic additional problems, nor can he write well either.
16. Ram can do his homework or his chores in the next two hours.
17. The wallpaper was mainly black, but had splotches of gray spattered about.
18. Raju is blind in one eye, yet he is able to drive a car.
19. I must attend a funeral, so I can't work tomorrow.
20. My friend could not read the verbose article, for she barely understands English at all.

In English, subordination is the relationship between a dependent and independent clause. There are five different subordinate relationships. Each subordinate clause falls into one of the relationships.

Relationship	Subordinators
1. Place	Where, Wherever
2. Time	When, Whenever, After, Until, Before
3. Cause/Effect	Because, Since, So that
4. Condition	If, Unless, If only
5. Contrast	Although, Even though

e.g.

As

1. because: As he is my friend, I will help him.
2. when: We watched as the plane took off.

After

1. later in time: After the train left, we went home.

Although or though

1. in spite of the fact that: Although it was after midnight, we did not feel tired.

Before

1. earlier than: I arrived before the stores were open.

Because

1. for the reason that: We had to wait, because we arrived early.

For

1. for, because: He is happy, for he enjoys his work.

If

1. on condition that: If she is here, we will see her.

Lest

1. for fear that: I watched closely, lest he make a mistake.

Providing or provided

1. on condition that: All will be well, providing you are careful.

Since

1. from a past time: I have been here since the sun rose.
2. as, because: Since you are here, you can help me.

So or so that

1. consequently: It was raining, so we did not go out.
2. in order that: I am saving money so I can buy a bicycle.
I am saving money so that I can buy a bicycle.

Supposing

1. if: Supposing that happens, what will you do?

Than

1. used in comparisons: He is taller than you are.

Unless

1. except when, if not: Unless he helps us, we cannot succeed.

Until or till

1. up to the time when: I will wait until I hear from you.

Whereas

1. because: Whereas this is a public building, it is open to everyone.
2. on the other hand: He is short, whereas you are tall.

Whether

1. if: I do not know whether she was invited.

While

1. at the time when: While it was snowing, we played cards.
2. on the other hand: He is rich, while his friend is poor.

3. although: While I am not an expert, I will do my best.

In addition, the following phrases are often used at the beginning of subordinate clauses.

As if

1. in a similar way: She talks **as if** she knows everything.

As long as

1. if: As long as we cooperate, we can finish the work easily.

2. while: He has lived there as long **as** I have known him.

As soon as

1. immediately when: Write to me as soon as you can.

As though

1. in a similar way: It looks as though there will be a storm.

Even if

1. in spite of a possibility: I am going out even if it rains.

In case

1. because of a possibility: Take a sweater in case it gets cold.

Or else

1. otherwise: Please be careful, or else you may have an accident.

So as to

1. in order to: I hurried so as to be on time.

In Tamil, two clauses are combined together in coordination by the use of coordinating elements and in subordination with the use of nonfinite and infinite verb forms. In Tamil, co-ordination refers to the process of conjoining two or more elements of equal categorical status of the three syntactic levels – word, phrasal, sentential – to one conjoined structure, in which all elements have equal status or rank. Thus, two nouns (N) can be coordinated to a noun coordination: $N \rightarrow N + N$, two noun phrases (NP), and two clauses (S) can be coordinated to a sentence co-ordination: $S \rightarrow S + S$. Words, phrases, and clauses are coordinated by coordinating morphemes referred to as coordinators, which express the semantic (logical) connections between elements conjoined. Tamil employs two types of coordinators. In one type of coordination the clitics *-um* ‘and’, *-oo* ‘or’, and *-aa* ‘whether; or’, occur after each element conjoined.

21. *raajaavum raaNiyum cennaikkuc enRaarkaL*

Raja_CO Rani_CO Chennai_DAT go_PAS_they

Raja and Rani went to Chennai'

22. *raajaavoo raaNiyoo cennaikkuc celvaarkaL*

Raja_CO Rani_CO Chennai_DAT go_FUT_they

'Raja or Rani will go to Chennai'

In another type of coordination free forms, such as *allatu* 'or', *illaiyaanaal* 'or' and *aanaal* 'but', that is coordinating conjunctions occur in-between the elements conjoined.

23. *raajaa allatu/illaiyaanaal raaNi cennai-kkuc cel-v-aarkaL*

Raja or Rani Chennai_DAT go_FUT_they

'Either Raja or Rani will go to Chennai'

24. *raajaa aluvalakattiR-kuc ce-nR-aan. aanaal veelai cey-av-illai*

Raja office_DAT go_PAS_he. but work do_INF_not

'Raja went to office, but did not work'

Tamil has large system of complex sentence formation involving subordination. Subordination takes place by embedding or adjoining a clause into another sentence. In subordination, the categories which occur as head of a subordinate clause in Tamil are postpositions (P), verbs (V) and the clause (S) itself. Thus a clause can be embedded into clause to the left side of a clause by subordination. Tamil does not have proper subordinator. The postpositions added to the infinitive and nominalized form of verbs act as subordinators. A clause is converted to subordinate clause by different types of inflections on the verb.

25. *raajaa va-ndt-a pinnar raaNi va-ndt-aaL*

Raja come_PAS_ADJ after Rani come_PAS_she

'Rani came after Raja'

26. *raajaa poo-v-ataR-ku munnaal raaNi varu-v-aaL*

Raja go_FUT_NOM_DAT before Rani_FUT_she

'Rani will come before Raja goes'

27. *raajaa pazham caapiTTuviT-T-ut tuungk-in-aan*
 Raja fruit eat_PAS_VP sleep_PAS_RP sleep_PAS_he
 ‘Raja slept after having eaten banana’
28. *raajaa va-ndt-aal raaNiyum varu-v-aaL*
 Raja come_PAS_CON Rani_also come_FUT_she
 If Raja comes, Rani will also come’
29. *raajaa poo-n-a piRaku raaNi varu-v-aaL*
 Raja go_PAS_ADJP after Rani come_FUT_she
 ‘Rani will come after Raja is gone’
30. *rani cinimaavu-kkup poo-n-aal raajaav-um poo-v-aan*
 Rani cinema_DAT go_PAS_CON rajaa_also go_FUT_he
 ‘If Rani goes to cinema, Raja will also go’
31. *engku campalLam atikam kiTaikk-um-oo angee avan veelai ceyvaan*
 where salary more get_FUT_ICL there he work_FUT-he
 ‘He will work where he will get more salary’

Mallinson and Blake (1981) discusses in details about co-ordination from the point of view of word-order typology (Mallison and Blake, 185-260). His observations, view points and examples have been utilized in this chapter while discussing about co-ordination in English and Tamil.

6.1. Problems in defining coordination and subordination

The most obvious definition of a co-ordinate structure is one in which constituents of the same type are joined by *and*, or its equivalents in other languages. Unfortunately this definition is far from satisfactory since first, not all languages have a morpheme corresponding to *and*; secondly, it begs the important question how we know that two constituents are of the same type. For example, in Tamil conjoining can be caused by mere juxtaposition of clauses or by participializing the main clause.

e.g.

32. *raaja mumpai-kkup poo-kiR-aan; raaNi cennai-kkup poo-kiR-aaL*

Raja Mumbai_DAT go_PRE_he; Rani Chennai_DAT go_PRE_she

‘Raja goes to Mumbai and Rani goes to Chennai’.

33. *raaNiy-in kaNkaL-ai paar-ttu-kkoN-Tu raajaa katav-ai aTai-tt-aan.*

Rani_GEN eyes_ACC see_VP_have_VP Raja door_ACC close_PAS_he

‘Looking into Rani’s eyes, Raja closed the door’.

The Second point is particularly troublesome and often gives rise to theoretical circularity. That is, the very name coordination suggests equality between the elements linked, so that there has been a tendency to assume that only elements of the same type can be co-coordinated and then to claim that two constituents must be of the same type because they can be coordinated.

Another way of defining subordination is to claim that one structure is in the some way less important than another and, in the case of co-ordination, on an equal footing. Unfortunately, militating against this definition is a tendency common to all languages. Thus, while there may be little doubt that the italicized clauses in the following 27.a are subordinate to the rest of the sentence (here it is acting as an object of the main clause), in 27.b too the second clause is in some way logically dependent on the first.

34.a. The policeman believed *the car thief was operating in his area*.

b. The policeman came around the corner and *the car thief ran away*.

There is a tendency for language users to attach logical priority to the first of two coordinate clauses, the thief’s departure in this instance being seen as following the policeman’s appearance and/or a consequence of it. Thus, although *and* has very much the quality of a plus sign to merely link clauses, it has more to it than this. So strong is our tendency to impose temporal or causal sequencing from left to right we also without much difficulty imagine a scene where there is some logical connection between the two clauses when they are reversed as in 34.

35. The car thief ran away and the policeman came round the corner.

This need to impose such a relationship on co-ordinate clauses is very strong indeed and is sometimes the only way of accounting for example like 35.

36. My grandmother wrote me a letter and six men can fit in the back seat of a Ford.

Although originally this classic example was to demonstrate the pointlessness of conjoining clauses between which there was no structural similarity and no semantic link, it usefully illustrates how we can impose an interpretation that does give it some point. One assumes that the speaker has had an argument about the seating capacity of large cars and that a letter from a relation has settled the matter (the interpretation is clearer with heavy stress on *can*).

37.a however shows that subordination tends to override the effect of the left-to-right ordering that we have just looked at in relation to co-ordination. Here the Italicized clause is acting as subject of the main clause, and can be moved in to final position, as in 36.b, without altering the semantic relationship between the two clauses at all.

38.a. *That cricket is increasing in popularity in India* is clear from the latest matches.

b. It is clear from the latest matches *that cricket is increasing in popularity in India*.

It is the relative heaviness of the italicized clause that makes 30.b more normal than 30.a. On the other hand, if we ignore the logical prominence of clauses coming first in the sentence, it is clear that true co-ordination involves clauses that could function independently of each other. This is clearly so with the example involving the policeman and the car thief.

Nevertheless, just as the logical precedence of one clause over another may belie the structural equality of clauses in a co-ordinate structure, so too may the use of *and* in English belie the subordination of one clause to another. This is particularly so with pseudo-imperatives like the first clause in 37.a, in reality a disguised conditional with the same value as the italicized clause in 37.b.

39.a. Give me your money and I will give you your freedom.

b. *If you give me your money*, I will give you your freedom.

A further use of *and* that is ostensibly coordinating but on closer inspection can be shown not to be is that in 38.

40. The child went to the shops and bought some potatoes.

That this sentence is not what it seems is clear from the fact that a constraint on question formation from co-ordinate structures appears to be ignored. 19 can be formed on 38 but 35 cannot be formed on 34.

39. What did the child go to the shops and buy?

40. John fed the cat and locked up the house.

41. What did John feed the cat and lock up?

In 32 it seems that *and* has less the value of a coordinating conjunction and more that of a subordinating conjunction with a purpose or sequential value.

On the other hand, an ostensibly subordinating conjunction can have a co-coordinating value. This view seems to be shared by a number of linguists, particularly those within the transform list school, who have given different sources to the apparently quite similar examples in 33.

36.a. All teachers who recently got a pay rise will pay more tax.

b. All teachers, who recently got a pay rise, will pay more tax.

It is the fact that 36.b can occur as 37.b but not 36.a as 37.a, that has led linguists to relate the non-restrictive clause types to a co-ordinate structure (Mallison and Blake, 1981:193).

37.a. *All teachers and they recently got a pay rise will pay more tax.

b. All teachers and they recently got a pay rise, will pay more tax.

Mallison and Balake (Malliston and Blake, 1981:193) makes the following remarks: “We might define co-ordinate sentences as ones in which the two (or more) clauses have grammatical equality. However, to claim that there is structural equality between the two parts of a co-ordinate structure might also seem rash in view of the gapping examples since it is the second not the first clause,

which is vulnerable to reduction a case might be made for stating that the first clause is more equal than the second. However, we will be examining the ability of a range of languages to reduce clauses in this way and it will be seen that it is not always the first clause which remains intact...Co-ordinate structures are structurally balanced and that the direction of deletion is determined by a combination of principles, including one that has more to do with the needs of language users in processing linguistic material, and with the undesirability of imposing unnecessary loads on short-term memory, than with structural inequality.”

There are other non-subordinating conjunctions which might be discussed in a more through the study of co-ordinate structures-in particular *but* and *or*. However, *and* itself allows scope for a very full discussion of the phenomena we are concerned with here, and the distribution of the other two conjunction is rather more limited. This is because of their enhanced semantic value over the rather neutral *and*. It is this limited semantic content of the conjunction *and* that allows it a less restricted distribution, and thus makes it an important part of any discussion of co-ordinate structure reduction.

6.2. Constituent Co-ordination

Languages do, however allow the conjoining of constituents below the level of the clause and it will be useful to examine the degree to which such conjoining is possible.

6.2.1. Major Constituents

It is perhaps the noun phrase that is most commonly found in co-ordinate structures, but many languages also allow the conjoining of other major constituents – including verbs, verb phrases, adpositional phrases, oblique phrases and adverbs. The conjunctions used in such cases are the same in English and other Indo-European languages as those used to conjoin clauses.

Constraints on the conjoining of major constituents are basically grammatical. It is clearly very odd to attempt to conjoin a noun with for example a verb or an adjective. However, 24 is an example of a noun phrase being conjoined with an adjective, a perfectly natural construction provided they are both being used predicatively.

38. My father wants to be a politician and happy.

Clearly, if we accept that NPs and adjectives are different types of category, then a purely categorical basis to co-ordination is unrealistic. That functional or semantic parallelism is required is also clear from examples such as 25, in which a prepositional phrase and an adverb have been successfully co-ordinated (Mallison and Blake, 1981:196).

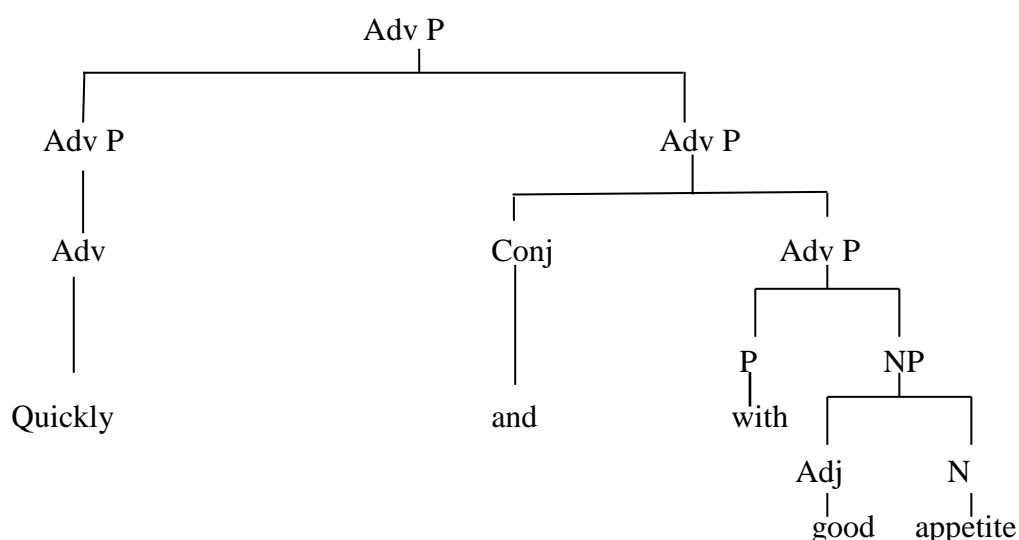
39. a. John ate quickly and with good appetite.

b. *raaja viraivaakav-um viruppatt-uTan-um uN-T-aan*

Raja quickly_CO interest_with_CO eat_PAS_he

‘Raja ate quickly and with interest’

This example is from a paper by Schachter (Schachter 1974) on co-ordination constraints and his claim is that such examples can be captured grammatically as follows.



Such a solution seems to us to be cheating since it involves a quite arbitrary system of node labeling simply to rescue a purely structural definition of the constraints on co-ordination (Mallison and Blake, 1981:96). Presumably one could extend this system to account examples like *My father wants to be a politician and happy* by invoking a category label such as predicate phrase, but it would be even more forced if called on to account for examples like the following.

40. John is a good cook but not very good at washing up.

On the other hand, two constituents may share the same category label but resist co-ordination because they have some semantic incompatibility. Neil Smith has suggested the following example.

- 41.a. The queen lurked in the palace.
- b. The queen lived in the palace.
- c. *The queen lurked and lived in the palace.

The constraints on co-ordination are much more subtle than the use of clever labels implies and must involve some intricate blend of structural semantic and pragmatic conditions (Mallison and Blake, 1981:196-197).

6.2.2. Minor Constituents

Minor constituents conjoined in accordance with certain constraints. Since the degree to which minor constituents such as prepositions and determiners are free will vary from language to language much more than is the case with some of the major constituents, it is likely that there will be more language-specific constraints in this area (Mallison and Blake, 1981:197).

Although determiners such as the definite and indefinite article in English are orthographically distinct, they are not free forms, since they cannot exist independently of the noun (phrase)s they determine. This is why they cannot be conjoined. This is the case with Tamil too.

- 42.a.*Raja saw a and the animal.
- b. **raajaa oru maRRum andta vilangk-aip paar-tt-aan* (Tamil)
Raja a and that animal_ACC see_PAS_he

On the other hand, demonstratives in English seem to tolerate conjoining. The acceptability of English translation has undoubtedly something to do with the fact that demonstratives are phonologically identical in their dependent and pronominal forms.

43.a. These and those are mine.

b. *ivaiky-um avaiy-um ennuTaiyana*

these _COR those _COR mine

Auxiliary verbs are also a category on the borderline of free occurrence, being freer in English. All auxiliary forms may be used in English without the support of a main verb. It appears that co-ordination can be used as a criterion for determining the freedom of occurrence of minor constituents even if it has limited value for classifying constituents as being of the same type. In English, all auxiliary forms may be used without the support of a main verb. In Tamil this is not possible.

44. a. Raja will and can do what he wants to do

b.* *raaja taan cey-a virumpu-v-atai ce-v-aan maRRum muTiyum*

Raja self do_INF want_FUT_NOM do_FUT_he and can

There are no problems in English with examples such as the following, involving the conjoining of constituents marked as recipients and beneficiaries.

45. These martyrs gave their lives to and for God and their country.

In a language such as Tamil, where case-marking is by postposition, conjoining in this way is not possible, even among semantically compatible postpositions, because of the morphologically bound nature of these markers. The following examples are clearly ungrammatical even though its English equivalent is quite natural.

46.**raaNi cennaikkum maRRum irundtum pookiRaaL*

Rani goes to and from Chennai

46 can be relating to the following 47 and 48 in which the postpositions with their directional value are unconjoined.

47. *raaNi cennai-kkup poo-kiR-aaL*

Rani Chennai_DAT go_PAS_she

Rani goes to Chennai.

48. *raaNi cennai-ilirundtu poo-kiR-aaL*

Rani Chennai_ABL go_PRE_she

Rani goes from Chennai.

Finally, there may be a further constraint on co-ordination that transcends those we have examined already.

6.2.3. Government and concord

When prepositions are more than mere case markers they may govern different case forms, a problem that does not arise in English. It appears that proximity is an important factor in judgments of acceptability on agreement and government (Mallisons and Blake, 1981:202).

There are further instances of this in the conjoining of other constituent types. In English, the distance between the first auxiliary italicized in 50 and the full verb it governs is greater than that between the same elements in 49 but 50 would be judged more acceptable. Conjoining of this type is not found in Tamil.

49. ? Bill has and *will underestimate* the opposition.

50. Bill *has* and, if I'm not mistaken which I rarely am, probably always *will underestimate* the opposition.

Neither of these examples would be acceptable with the order of auxiliaries reversed, that is, with control by the first auxiliary.

51. # Bill will and has underestimated the opposition.

52. # Bill will and, if I'm not mistaken which I rarely am, probably always has underestimate the opposition.

Whether consciously or unconsciously, though, the control problem is neutralized by using a verb that has identical stem and past participle forms.

53. Bill has and will upset the opposition.

The conjoining of nouns is also likely to present such problems in languages with a grammatical gender or noun-class system.

6.3. Co-ordinate structure reduction

6.3.1. A Traditional Approach and some criticism on coordination

Despite the highly productive nature of constituent co-ordination however, there is a well-established tradition – common to traditional and transformational grammar alike – of deriving such co-ordination from full-clause equivalents (Mallison and Blake, 1981:207). In traditional grammar it is common to find a relationship established between examples like 54 and 55.

54. a. Cats like cheese and mice like cheese.

b. *puunaikaL paalaaTaikkaTTiy-ai virumpu-kinR-ana maRRum elikaL paalaaTaikkaTTiy-ai virumpu-kinR-ana*

cats cheese_ACC like_PRE_they and rats cheese_ACC like_PRE_they

55. a. Cats and mice like cheese.

b. *puunaikaL-um elikaL-um paalaaTaikkaTTiy-ai virumpu-kinR-ana.*

cats_CO rat_CO cheese_ACC like_PRE_they

Rather than being seen as the direct conjoining of two subject noun phrases with a shared verb phrase, 55 can be viewed as the omission of the first of two identical verb phrases in the full sentences equivalent. Such an approach is not unreasonable in the case of many of the examples of constituent conjoining but there are certainly instances where such an approach is unsuitable.

6.3.2. Distinct Markers for the two types of conjoining

There are some languages which use a different conjunction for clause and constituent co-ordination and any approach which relates the two types must also account for the change in marker. All languages do not use a discrete marker to conjoin sentences. Although the conjoining of the first in Japanese there is conjoining of constituents below clause level and the proponents of a reduction approach must therefore account for this disparity.

In Tamil, there are two different types of markers for conjoining noun phrases as illustrated by the following examples (56) – (57). One type of conjoining involves using the coordinating clitic *-um* and another type involves using coordinator *maRRum* ‘and’.

56. *raajuv-um kumaar-um cunil-um Tivi paar-tt-anar*

Raju_CO Kumar_CO Suni_CO T.V. see_PAS_they

‘Raju, Kumar and Sunil watched T.V.’

57. *raajuu, kummaar maRRum cunil aakiyoor Tivi paar-tt-anar*

Raju Kumar and Sunil all T.V. see_PAS_they

‘Raju, Kumar and Sunil watched T.V.’

6.3.3. Non-existence of full clause Equivalents

The following examples from English will suffice to illustrate this serious problem for a reduction approach. 58 is perfectly well formed but 59 is extremely unnatural.

58. Your son and his daughter are quite a happy pair.

59. Your son is quite a happy pair and his daughter is quite a happy pair.

This constraint is surely universal – it would only be possible to use examples such as 59 in a language whose speakers had an extremely odd view of the nature of the individual.

6.3.4. Symmetric Predicates

A wide range of languages have structures of this kind with a similar semantic range of verbs and adjectival predicates; once more it is a matter of the full form being itself ungrammatical. Such examples as the following from English involves a conjoined subject NP but cannot be realistically derived from corresponding conjoined intransitive sentences with singular subjects.

60. John and Mary met.

61. John met and Mary met.

We can see in the following examples where a singular subject NP shares the action with the committative-marked NP in the predicate.

62. John met with Mary.

The class of predicates involved includes the equivalents of verbs such as *collide* and *converge* and adjectives such as *similar* and *identical*, although it is not necessarily the case that all languages sharing this pattern of structures will have precisely the same range of predicates involved.

6.3.5. Reduction by proform

The reduction approach to constituent conjoining still enjoys a good deal of popularity, reflecting perhaps a widespread awareness among linguists of the tendency of languages to avoid repetition by the omission of identical constituents (Mallison and Blake, 1981:213). However, such omission is not the only way that languages avoid repetition and a common feature is the use of proforms to the same end. Not only in conjoined structures but also in other types of complex structure and also across sentence boundaries, a second mention of an NP can be replaced with a personal pronoun. The following example is from English.

63. John enjoys cricket although he doesn't play it very often.

In many apparent cases of predicate proform, there is mere deletion of the verb and the rest of the predicate involving the auxiliary being retained.

All languages allow pronouns to stand in place of full NPs, not all languages allow the use of proforms to stand in place of verb phrases. Once again, there is an instance of a potentially universal pattern that is subject to language-specific constraints, in this case, the relative degree of freedom given to auxiliary verbs to stand alone as representatives of the verb phrase that can be interpreted as replacement. Even though pronouns are a common device for replacing repeated noun phrases they do however provide less interest for cross linguistic investigation than the omission of repeated constituents.

6.4. The Typology of co-ordinate structure Reduction

6.4.1. The Theoretical Options

Use of proforms involves the replacement one of an identical constituents by the appropriate form; they are merely used in order to avoid repetition. The treatment of proforms during the 1960 was usually transformational, but there came later a realization that at least some pronouns could not realistically be derived in this way.

64. I like you.

Here, in this example the first and second persons pronouns have no antecedent, the identity of *I* being whoever the speaker happens to be and that of *you* being whoever is being addressed. A transformational approach would need a special transformation for every speaker and one for every hearer.

65. The pilot who shot at *it* hit the MIG that chased *him*.

Here in this example the antecedent of each of underlined pronouns is an NP containing the other pronoun so that an infinitely long derivation would be required to avoid having any pronouns at all in deep structure.

The alternative favoured in the late 1960s and in the 1970s was an interpretive approach which introduced pronouns directly into structures and then assessed them for possible co-reference. However, it is important to realize that merely introducing anaphoric pronouns into structures does not solve some of the descriptive problems that the transformational approach was intended to solve. Whichever approach is adopted, a description of the following examples must satisfactorily account for the fact that some uses of anaphoric pronouns are possible and others not.

66. When John got home he felt sick.

67. When he got home John felt sick.

68. John felt sick when he got home.

69. *He_j felt sick when John_j got home.

In each of these examples, it is of course possible to see *he* and *John* as not referring to the same person, but any approach to the description of pronouns in English must account for the unacceptability of 69 against the acceptability of 68 when *he* and *John* are taken as co-referential. That is, any description must account for the distribution of backward anaphora, irrespective of the pronoun involved solutions that have been proposed to account for the distribution of backwards and forwards pronominalization in transformational terms. Jackendoff 1972 includes an early but quite thorough attempt to convert this progress approach into a static interpretive one.

A similar theoretical option is available in accounting for the distribution of reduced conjoined structures where repeated elements are omitted. Transformationally, the missing elements will be present in deep structure and deleted under identity with other constituents in the complex structure. From interpretive viewpoint the 'gaps' are built directly into structures and then assessed for identity with constituents in the remainder of the complex structure. Once again the former approach in the 1970 s and the current concern with realism in grammatical descriptions is neglected in a typical psycholinguist's attitude to this theoretical option.

The underlying relation is captured by non-realization of underlying arguments in sentences, rather than by their realization followed by deletion (Maratsos 1978: 253). However, it is again important to point out that whichever approach has the most adherents the description used must still account for the grammaticality ratings on relevant examples. Thus, the following examples can be derived transformationally or interpretively.

70. My brother bought some cherries and my sister --- some eggs.

Here in this example, the omission or deletion of the identical verb has worked forwards or to the right.

71. My brother --- some cherries and my sister bought some eggs.

Here in this example, the gapping of a verb has worked backwards or to the left is quite unacceptable.

In English, gapping (by which we mean the loss of an identical verb) is forwards, not backwards, but in languages other than English a case might be made for claiming that gapping works backwards. This appears to be the case in Tamil as illustrated by the following examples.

72. *raajaa ndaay-aiy-um aaciriyar maratt-aiy-um paar-tt-anar*

Raja dog_CO teacher tree_CO see_PAS_they

Raja saw the dog, and the teacher the tree.

English relatively lacking in markers for indicating grammatical relations other than by word order yet allows gapping to a remarkable degree. Sanders 1976 also points to the morphological diversity of languages following similar patterns of reduction as well as to the diversity in word order among languages avoiding repetition in identical ways thus, although it is empirically quite unjustified to suggest that case-marking alone forms a clear basis for predicting the acceptability of reduced conjoined structures. As for those languages which do tolerate gapping or other instances of reduction in conjoined structures, a number of systems have been devised by linguists to account for the patterns that do and do not occur.

6.4.2. Co-ordinate deletion

Co-ordinate deletion is a term used by Koutsoudas 1971 to describe a uniform process for reducing co-ordinate structures on a cross-linguistic basis. If such a process can be shown to be valid it will be an extremely useful addition to typological research since any grammatical process that works for all languages takes us a little nearer to the goal of a universal set of principles for language (Mallison and Blake 1981:219). Deriving much from the work of Ross on gapping (Ross 1970) Koutsoudas's co-ordinate deletion captures the four following paradigm cases of reduction in English.

a. Omission of verb phrase from clause

73. The owl and the pussycat went to sea in a beautiful pea-green boat.

b. Omission of subject NP from clause 2

74. The mesembryanthemum opens in sunshine and closes when it is cloudy.

c. Omission of verb from clauses 2

75. War brought employment and peace unemployment.

d. Omission of object NP from clause 1

76. Birds eat, and flies avoid long-legged spiders.

These are paradigm examples in that a much wider set of examples might be used to demonstrate the omission of other constituent types. Prepositions and adjectives may be deleted but only in company with major constituents. Thus the loss of a preposition in the following example is unacceptable, but its loss together with the verb can be seen as a gapping of a larger section of the verb phrase.

77. The Inspector looked at the suspect and the sergeant looked__the lawyer.

78. The Inspector looked at the suspect and the sergeant __ the lawyer.

Also, discussion of word order in language often reduces to a discussion of the ordering of S, V and O whereas a larger of constituents has to be taken into account.

The following example clearly is a case of gapping, but involves no object NP, merely an adverbial after each verb.

79. Primroses bloom annually and other plants every other year.

However, to make the discussion more manageable, we leave aside such problems and concentrate on the reduction of major constituents. Like Ross, pattern of gapping Koutsoudas more general pattern of reduction in conjoined structures is related to dominant word order, but also to the ways in which trees branch in the structures underlying the different word orders.

Staying with word order alone for the moment we can account for the fact that in Tamil as an SOV language gapping of the verb is from the first clause while in English it is from the second. English being an SVO language on the other hand English appears to lose object NPS from the first clause and Tamil (Japanese) from the second. Compare examples 1.59 and 1.60 with the patterns of their English translations.

80. *lataa ndaayaiyum ramyaa marattaiyum paarttaaL*

Latha saw the dog and Ramya the tree

S V O S O

81. *lataa ndaayai taTTikkoTuttaal ramyaa aTittaal*

Latha patted and Ramya hit, the dog.

S V S V O

To complete the pattern, the following two examples demonstrate the omission of subject and verb phase respectively.

82. *lataa ndaay-ait taTTikoTu-tt-aaL maRRum puunaiy-ai aTi-tt-aal*

Latha dog_ACC pat_PAS_she and cat_ACC beat_PAS_she

Latha patted the dog and beat the cat.

S V O V O

83. *lataav-um ramyaav-um ndaay-aip paar-tt-anar*

Latha_COR Ramya_COR dog_ACC see_PAS_they

Latha and Ramya saw the dog.

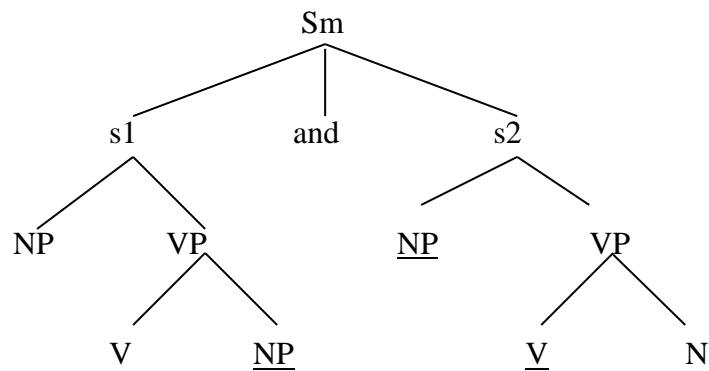
S S V O

In these four examples, we have labeled constituents in terms of S, V and O but Koutsoudas' rules handle V+O/O+V as a single constituent verb phrase. Koutsoudas reduction principle does in fact hang on the branching of structures rather than on mere word order (Mallison and Blake, 1981:222).

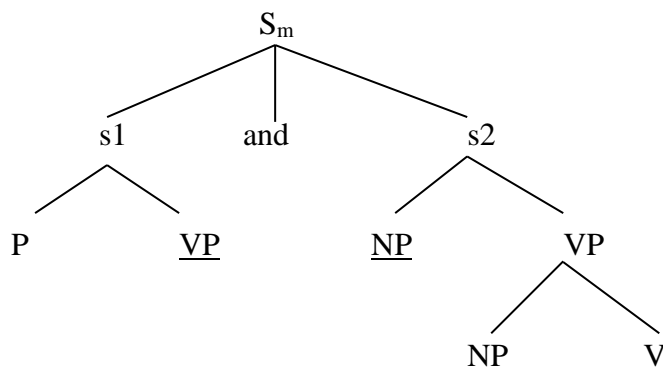
Given a co-ordination in which each conjunct includes a constituent which is identical to the corresponding constituent of each other conjunct, all but one of these identical constituents may be deleted, the undeleted constituent being that of the first conjunct if it is a left-branching constituent and that of the last conjunct if it is a right branching constituent.

As illustrated by the diagrams below English and Tamil appear to follow the same pattern of reduction: those constituents which branch to the right are deleted from the first clause, and those that branch to the left from the second clause (Mallison and Blake, 1981:222).

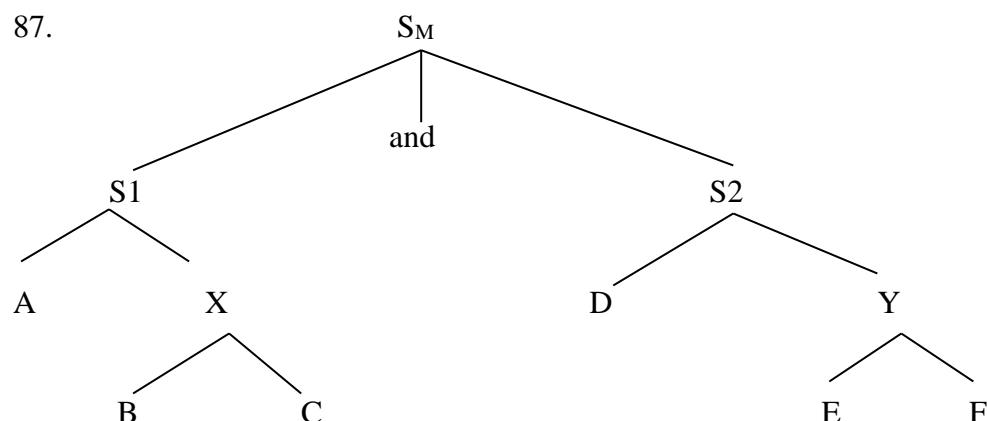
85. English



86. Tamil



Geometrically, both English as an SVO language and Tamil as an SOV language fit the following pattern, determined by constituent structures, and not by the labels of the constituents involved (Mallison and Blake, 1981:223).



Koutsoudas examines some thirty languages and all appear to conform to the single principle. Thus all SVO languages which delete repeated material will delete object NPs from $S1$ and verbs from $S2$. Data from Keenan 1978 appears to confirm some of Koutsoudas pattern for a number of

VOS languages. As Koutsoudas points out not all languages will allow wide scale reduction of conjoined structures. Sanders & Taj 1969 forward a universal principle that a language allows deletion of objects and verbs or neither, but not one without the other. Koutsoudas lists a number of languages which conform to this principle and allow neither of these two types of reduction. The important point is however, that if a language does allow such reduction it should conform to the pattern of co-ordinate deletion.

6.5. Subordination

The subordinate clause is itself divisible into phrases having grammatical functions at the clause rank (subject, verb, object, complement, or adverbial). And the subordinate clause assumes a 'part-to-whole' relationship within its main clause, becoming only one part of the whole sentence. Subordinate clauses can be further subcategorized by their form and function. Subordinate clauses take the form of either 'full' clauses or 'reduced' clauses. Full subordinate clauses often exhibit an overt subordinator, and the grammatical functions we discussed earlier for constituents at the clause rank, like subject, object, complement, or adverbial.

(88) A subordinate clause functioning as subject		
Whoever wants that book	can have	it.
Subordinate Clause		
Subject	Verb	Object
Main Clause		

(89) A subordinate clause functioning as object		
I	know	that you lied.
		Subordinate Clause
Subject	Verb	Direct Object
Main Clause		

(90) A subordinate clause functioning as complement

Liz	can be	whatever she wants to be.
		Subordinate Clause
Subject	Verb	Complement
Main Clause		

(91) A subordinate clause as adverbial			
Since we can't go	you	can have	the tickets
Subordinate Clause			

Adverbial	Subject	Verb	Object
Main Clause			

To illustrate the fact that each subordinate clause is still a "clause," we can take the subordinate clause (the adverbial clause above for example) and subdivide it into its clause level constituents, as in 91.

(92) The adverbial subordinate clause further subdivided into its functional constituents					
Since	we	can't go	you	can have	the tickets.
Subordinator	Subject	Verb			
Subordinate Clause					
Adverbial			Subject	Verb	Object
Main Clause					

Reduced subordinate clauses are missing many or most of those constituents, usually the subordinator, the subject, and the finite part of the verb. (The finite part of the verb, remember, is the part of the verb phrase that is marked for tense, such as the *-ed* past tense inflection.)

Consider (93), an example of a full subordinate clause functioning as the object of its main clause, and (94), a reduced subordinate clause also functioning as the object of its main clause:

(93) An example of a full (finite) subordinate clause (that you lied) functioning as direct object in a main clause				
I	know	that	you	lied.
		Subordinator	Subject	Verb
		Subordinate Clause		
Subject	Verb	Direct Object		
Main Clause				

(94) An example of a reduced (nonfinite) subordinate clause (to be alone) functioning as direct object in a main clause			
I	want	to be	alone
		Infinitive verb	Complement
		Subordinative clause	
subject	Verb	Direct object	

The part of the verb that remains in the reduced subordinate clause is the nonfinite constituent, the participle, the verb that is not marked for tense. Consequently, reduced subordinate clauses are often called 'nonfinite' clauses. Like full subordinate clauses, the reduced subordinate clause can assume a variety of functions at the clause rank. In (93), we have seen a reduced subordinate clause functioning as direct object. In (94) and (95), we have examples of the same infinitive clause functioning as subject and complement.

(95) An example of a reduced (nonfinite) subordinate clause functioning as subject of the main clause		
To be alone	can be	very sad.
Subordinate Clause		
Subject	Verb	Complement

Finally, on the basis of their potential function, we distinguish several major functional categories of subordinate clauses - nominal, adverbial, relative, and comparative.

6.5.1. Forms of Subordinate Clauses

To illustrate the various forms of the subordinate clause, let's look at several examples. In each example, we will keep the grammatical function constant (making all of the subordinate clauses function as adverbials in the main clause) so that we can concentrate on the changes in form:

- 97. Since he arrived, she left early. [full clause]
- 98. Shocked by the news, she left early. [-ed clause]
- 99. Hearing the news, she left early. [-ing clause]
- 100. Her hearing the news, she left early. [absolute clause]
- 101. To hear the news, she left early. [infinitive clause]
- 102. Anxious and fretful, she left early. [verbless clause]

Some of the hallmarks of the full subordinate clause are its subordinator (*Since*), its own subject (*he*), and its own finite verb (*arrived*). The other clauses, in (98) through (102), are all reduced subordinate clauses with nonfinite verbs.

The *-ed* clause is marked by the presence of the nonfinite *-ed* verb form at the beginning of the subordinate clause. Likewise, the *-ing* clause and the infinitive clause are marked by the presence of an *-ing* or infinitive verb form, respectively, in clause-initial position. (An *-ing* clause functioning as the subject of the sentence, as in *Swimming in this lake is not allowed*, is often called a "gerund" in traditional grammars.) The absolute clause is much like the *-ing* clause; however, the absolute clause begins with a pronoun in the genitive or objective case that seems to function as the 'subject' of the *-ing* verb. Finally, verbless clauses, as their name suggests, are notable for their lack of any verb form (although one can easily imagine that the verbless clause is a reduced form of a full subordinate clause something like *Since she was anxious and fretful,*).

Lastly, relative clauses are recognizable by their distinctive structures: first is the relative pronoun (a *wh-* word like *who*, *whom*, *whose*, *which* or the word *that*) often occurring in clause-initial position; second is the fact that the relative pronoun has the potential to assume many different

functions within the relative clause. For example, some of the most common functions for the relative pronoun are subject, object, or complement:

(103) A relative pronoun as subject of relative clause					
I	know	who	has	the book	now.
		Subject	Verb	Object	Adverbial
		(relative pronoun)			
		Relative Clause			
Subject	Verb	Object			
Main Clause					

104. I know *whom* you wish to see. [relative pronoun as object of relative clause]

105. I know *who* you are. [relative pronoun as complement of relative clause]

6.5.2. Functions of Subordinate Clauses

When a subordinate clause assumes the grammatical function of a noun phrase, that clause is said to be functioning as a nominal subordinate clause. Noun phrases, remember, can function as subject, object, complement, or even occasionally as adverbial. Some examples of nominal subordinate clauses we have studied already are in examples (88), (89), (90), (93), and (94).

Very often, a relative clause is embedded in a noun phrase, functioning as a post modifier. As noted above, the relative clause is also marked by its distinctive formal characteristics. We have studied relative clauses already in noun phrase post modification (see example h) in the noun phrase section. Relative clauses in English may also assume a nominal function, as we have already seen in examples (88), (103), (104), and (105) above.

When a subordinate clause functions like an adverbial, that clause is said to have adverbial function. Sentences (97) through (102) all contain examples of different forms of subordinate clauses functioning as adverbials.

Finally, when a subordinate clause functions to compare one element of a clause with another, that clause is said to have a comparative function. Consider (106) for example.

(106) An example of a comparative clause			
Emily is not as tall	as	Liz	is
	Subordinator	Subject	Verb
	Comparative Clause		
Main Clause	Subordinate Clause		
Clause Complex			

At this point in the discussion of the clause complex, it is not unusual for one's head to spin. There are after all so many different forms, and each form can serve so many distinct functions.

What we need to remember at times like these is that language is our primary means of social interaction; that we are complex creatures filled with ideas and dreams. So too our language through which we express our thoughts must be just as rich as we are ourselves. Although the initial impression appears to be one of confusion, we should console ourselves by observing that the problem is, at its heart, a really quite ordinary human problem. When we think about this problem in its most general terms, we realize that each of us human beings (a "form" so to speak) serves several roles (or "functions") in our lives. In short, we humans are multi-faceted, so it is no wonder that each part of our language is multi-faceted too. A form serves several functions in different constituent groups. The following table will illustrate this statement.

a human	child	parents
	mother/father	children
	wife/husband	spouse
	colleague	co-workers
	friend	acquaintances
	teacher	students
	employee	employer
	citizen	local & national governments
	etc.	...

On a much smaller scale, we can see a similar multiplicity of roles is served by each constituent in every human language. The noun phrase, for example, has multiple roles. We have seen noun

phrases work as subjects, objects, adverbials, and complements of both the clause and the prepositional phrase.

107. The council voted to defeat the amendment. [noun phrase as subject]
108. Citizens then petitioned their representatives. [noun phrase as object]
109. The citizens are the taxpayers after all. [noun phrase as complement of the clause]
110. The council capitulated to the wishes of the voters. [noun phrase as complement of preposition]
111. The next day, the council reversed itself. [noun phrase as adverbial]

However, it is not just elements at the word or phrase rank that must serve many functions in different contexts. So too each clause serves many different functions simultaneously.

Tamil builds compound and complex constructions by resorting to coordination and subordination. Complex sentences are formed by embedding a clause into a sentence or by adjoining a clause to a sentence. A clause is embedded into or adjoined to the structure of another sentence as a co-constituent or complement to the left of a head constituent (i.e. complementation) or it is embedded into a noun phrase as the only constituent of the noun phrase (nominalization).

Four types of complementation can be distinguished in Tamil (Lehmann 1993:251):

1. Noun phrase complementation
2. Postpositional phrase complementation
3. Predicate complementation
4. Adjoined complementation

The following table depicts the four types of complementation with description, pattern and example.

Type of complementation	Description	Pattern	Example
Noun phrase complementation	A clause can be embedded into a noun phrase as	NP → S + NP	[[<i>kuTiyirukka</i>]S [<i>vacatiyaana viiTu</i>]NP]]NP 'the house to live

Type of complementation	Description	Pattern	Example
	complement to the left side of a head or head noun phrase.		comfortably'
Postpositional complementation	A clause can be embedded into a postpositional phrase as complement or argument to the left side of the postpositional head.	PP → S + P	[[<i>avanai paartta</i>]S <i>pinnar</i>]]PP
Predicate complementation	A clause can also be embedded into a sentence as complement to the left side of the verbal predicate.	S → NP + S + V	[[<i>avan</i>]NP [<i>marattilirundtu oru maangkaay vizak</i>]S [<i>kaNTaan</i>]VP]]S
Adjoined complementation	A clause can be adjoined to the left side of the matrix sentence.	S → S + S	[[<i>kaNNan kallaal aTikka</i>]S [<i>marattilirundtu maangkaay vizundtatu</i>]S]S

Tamil employs the following devices to mark complementation:

1. Non-finite verbal forms

umaa jappaan pooka virumpu-kiR-aaL

Uma Japan go_inf like_pres_I

‘Uma wants to go to Japan’

2. Nominalized verb forms

ndaan avaL ndeeRRu paaT-in-a-t-ai keeT-T-eeen

I she yesterday sing_PAS_RP_NOM_ACC hear_PAS_I
'I heard her singing yesterday'

2. Complementizing verbs

kaNNan ndeeRRu va-ndt-aan enRu aRi-ndt-een
Kannan come_PAS_he COM know_PAS_I
'I heard that Kannan came yesterday'

3. Complementizing nouns

Most of the complementizing nouns belong to the semantic category of time, manner, or measure and express thus various temporal, manner, etc. relations between the embedded clause and the matrix clause

avaL va-ndt-a pin kaNNan va-ndt-aan
she come_PAS_RP after Kannan come_PAS_he
'Kannan came after she came'

Based on the verbal forms that constitute clauses, they can be differentiated into two types:

1. Finite clause carrying a finite verb
2. Non-finite clause carrying a non-finite verb

Apart from these the following clauses too need separate treatment:

3. Nominalized clauses
4. Adverbial clauses
5. Verbal complement clauses

6.5.3. Nonfinite clauses

Based on the form of the embedded verb, four types of non-finite clauses can be identified for Tamil.

1. Infinitival clauses
2. Verbal participle clauses
3. Conditional clauses
4. Adjectival or relative clauses

The infinitival clauses that are headed by an infinitive form of a verb are embedded in a number of combinations in the formation of sentences. Infinitive form is introduced by adding the infinitive marker *-a* to the verb stem. The infinitive form that is unmarked for tense is an appropriate form to occur in complements whose time reference is determined by the meaning of the governing predicates.

[... [...V-inf]S ... V-finite]S'

112. *kaNNan viiTTu-kkup pook-a virump-in-aan*
 Kannan house_DAT go_INF want_PAS_he
 'Kannan wanted to go home'

6.5.4. Verbal participle clause

The Verbal participial clauses (VPC) are those whose head is a verb in verbal participle form. The verbal participial form has the following morphological structure:

Verb+past/negative +Verbal participial suffix

The above morphological structure of VPC indicates that there are two types of verbal participle forms:

1. Positive verbal participle form
 V +past+participle
2. Negative verbal participle form
 V+negative+participle

As the past tense sense is lost while collocating with the matrix verb, the past participle form can be reanalysed as 'Verb+verbal participle suffix'. But it should be noted that the positive form carries past tense suffix, whereas the negative form carries the negative suffix *-aat/-aa*.

<u>Positive form</u>	<u>Negative form</u>
<i>azhut-u</i> 'having wept'	<i>azhaatu/aZhaamal</i> 'without weeping'
<i>paaT-i</i> 'having sung'	<i>paaT-aat-u/paaT-aa-mal</i> 'without singing'

A simple verbal participle clause has the following structural pattern.

[... [...V-past part]S ... V-finite]S

113. *kamalaa caappiT-T-u-viTT-ut tuungkinaaL*

Kamala eat_past_part_leave_past_part sleep_past_she

'Kamala slept after taking food'

6.5.5. Conditional clause

The conditional clauses are headed by a verb in conditional form (i.e. verb inflected by the conditional suffix *-aal*). There are two types of conditional clauses:

1. Positive conditional clause
2. Negative conditional clause

The positive conditional clause contains a verb in positive conditional form having the following morphological structure:

Verb+Past Tense+Conditional suffix

114. *kaNNan va-ndt-aal ndaan varuveen*

Kannan come_past_cond I come_fut_I

'If Kannan comes, I will also come'

115. *mazhai pey-t-aal payir ndanRaaka vaLarum*

rain rain_COND crop well grow_FUT_it

'If it rains, the crop will grow well'

The negative conditional form will have an auxiliary verb added to the negative form.

Verb+Negative+viTu+Past+Conditional suffix.

var-aa-viT-T-aal

come_NEG_leave_PAS_COND

'if it did not come'

116. *kaNNan var-aa-viT-T-aal ndaan varu-v-eeen*

'Kannan come_NEG_leave_PAS_if I come_FUT_I

'I would come if Kannan did not come'

6.5.6. Adjectival or relative clause

Adjectival clause is otherwise known as relative clause. Only those NP + VP and NP + NP type of sentences which are embedded under the NP for the purpose of modifying an NP are studied here. These modifying sentences are known as relative clause sentences and as a clause in main sentence these are known as relative clauses.

In most of the transformational studies on relativization, relative clauses have been derived from the sentences embedded in NPs. In English relative clauses are adjoined to the right of the head noun, where as in Tamil, relative clauses are adjoined to the left side of the head noun.



There are two main reasons to adopt this structure. First, both relative participle and relative clause structures occur only to the left of the head NP in the surface structure. They never occur to the right of the head NP. Second, if we follow NP NP [S] three steps are involved in the process of derivation.

1. Identical NP of embedded S is deleted
2. Finite verb form is changed into relative participle form.
3. Head NP is moved.

But, when we adopt NP [S] NP only two steps are enough.

1. Identical NP is deleted
2. Finite verb form is changed into relative participle form.

It has to be mentioned that all the linguists who studied noun phrase in Dravidian languages have followed this structure.

Since the purpose and function of the relative clauses is to modify an NP by turning a sentence into a modifying constituent clause, coreferentiality of the NPs in the matrix and constituent sentences is the foremost condition for the relative clause formation. Meeting this condition of coreferentiality in Tamil relative clauses are constructed in two ways. Accordingly, there are two types of relativized constructions in Tamil:

1. Co-relative clause construction
2. Relative participle construction.

6.5.7. Co-relative clause construction

In Tamil, relative clauses are constructed by adding the specifying interrogative adjective *endta* 'which' to the constituent sentence NP and the demonstrative adjective *andta* 'that' to the matrix sentence NP.

Constituent sentence :

117. *ciRuvan ndeeRRu va-ndt-aan*
 boy yesterday come_PAS_he
 'The boy came yesterday'

Matrix Sentence:

118. *ciRuvan inRum va-ndt-iru-ndt-aan*

boy today_also come_PAS_be_PAS_he

'The boy had come today also'

entac ciRuvan ndeeRRu va-ndt-aan-oo antac ciRuvan inRum va-ndt-iru-ndt-aan

“The boy who had come yesterday had come today also”

By sister adjoining rule, the interrogative adjective *endta* ‘which’ is adjoined to the constituent sentence coreferential to subject NP and the demonstrative adjective *andta* is adjoined to the matrix sentence coreferential to subject NP. The relative clause and the matrix sentence are connected by the clitic *-oo*.

The matrix sentence NP can be pronominalized optionally.

119. *entac ciRuvan ndeeRRu va-ndt-aan-oo avan*

which boy yesterday come_PAS_he_CL he

'the boy who came yesterday'

6.5.8. Relative participle constructions

The other type of relativized constructions is constructed by making use of the verbal category called relative participle. Hence this type of construction is known as relative participle construction.

120. *va-ndt-a ciRuvan*

come_PAS_RPM boy

'the boy who came'

Of the two types of relativized constructions, co-relative clause constructions are not viewed with favour by the native speakers. They occur very rarely. The relative participle construction is the widely used construction in Tamil

6.6. Differences between co-relative clause and relative participle clause

Though the function of co-relative clause and relative participle clause are almost one and the same, they differ in their constraints.

1. In the case of relative participles, all the casual NPs cannot be relativized. Certain casual NPs like sociative and purposive cannot be relativized.

121. *ndaan andta ciRuvan-ooTu va-ndt-een*

I that boy_SOC come_PAS_I

'I came with that boy'

122. **ndaan vandta anta ciRuvan*

'That boy with whom I came'

123. *ndaan ciRuvan-ukk-aaka marundtu vaangk-in-een*

I boy_DAT_for medicine buy_PAS_I

'I bought medicine for the boy'

124. **ndaan marundtu vaangk-iy-a ciRuvan*

I medicine buy_PAS_RPM boy

'the boy for whom I bought medicine'

2. But in the case of co-relative clauses, there is no such casual constraints. All the casual NPs can be relativized.

125. *ndaan endta ciRuvan-ooTu va-ndt-een-oo avan*

I which boy_SOC come_PAS_I_CL he

'the boy with whom I came'

126. *ndaan endta ciRuvan-ukk-aaka maruntu vaangk-in-een-oo avan*

I which boy_dat_for medicine buy_PAS_I_CL he

'The boy for whom I bought medicine'

3. Co-relative clauses express emphasis on the NP. Such an emphasis is not found in relative participle clauses

4. The casual relation is clear-cut in co-relative clause constructions. Therefore the ambiguity, which arises in relative participle constructions, does not arise in co-relative clauses.

127. *puli ko-nR-a yaan-ai periyatu*

i. *endtdap puli yaanai-yaik kon-R-at-oo atu periyatu*

'The tiger which killed the elephant is a big one'

128. ii. *endta yaanaip puliy-aik kon-R-atoos atu periyatu*

'The elephant which killed the tiger is a big one'

The ambiguity between relative clause and complement clause also does not arise if one uses co-relative clause.

129. *maaNavaarkaL paTi-tt-u-kkoN-T-irukk-um ceyti uNmai*

i. The news that the students are reading is true.

ii. The news that the students are reading is true.

The phrases like *veelai ceyta kaLaippu* 'the tiredness caused by doing work' *pirindta tuyaram* 'the sorrow caused by parting' cannot be put in co-relative clause. Their status of belonging either to relative clause or correlative clause is yet to be decided. It appears that they are derived out of sentences with more information as given below:

130. *avan-ukku veelai ceytataal kaLaippu eeRpaT-T-atu*

he_DAT work do_PAS_COND tiredness occur_PAS_it

'He became tired as he worked'

131. *avan-ukku avaLaip pirindtataal tuyaram eeRpaTTatu*
 he_dat she_ACC separate_PAS_COND sorrow occu_PAS_it
 'He felt sorry as he got separated from her'

6.7. Comparative account of coordination and subordination

English as an SVO language and Tamil as a SOV language show characteristic differences in coordination and subordination. Tamil resort to additive or disjunctive co-ordination by using a clitic which is affixed to each coordinated element. On the other hand English makes use of *and* and *or* respectively before the items to be coordinated additively and disjunctively. English does not require the addition of *and* after each element of coordination; on the other hand Tamil requires the addition of *um* 'and' after each element under coordination. So English expects a coma after each conjoined element, whereas Tamil do not need comma in this context.

132. *raajav-um raaNiy-um raamuv-um ndeRRu va-nd-aarkaL*
 Raja_CO Rani_CO Ramu_CO come_PAS_they
 'Raja, Rani and Ramu came yesterday'

133. *raajaav-oo raaNiy-oo raamuv-oo ndaaLai varu-v-aarkaL*
 Raja_CO Rani_CO Ramu_CO come_PAS_they
 Raja, Rani or Ramu will come tomorrow

Under the title 'coordinate structure deletion' we have seen the deletion of identical constituents occurring in the coordinated clauses. Both verbs and nouns are involved in gapping. In English both backward and forward conjunction reductions are possible in the case of nominal and verbal reduction, whereas in Tamil only backward conjunction reduction is possible in the case of verb deletion. In the backward conjunction reduction, the identical constituent which occurs in the first sentence is deleted. In the forward conjunction the identical constituent which occurs in the second sentence is deleted.

134. Backward conjunction reduction

Raja bought three --- and Rani bought three books.

raajaa muunRum raaNi ndaalu puttakangkaL vaangkinaarkaL. (Tamil)

Raja three_CO Rani four_CO books buy_PAS_they

135. Forward conjunction reduction

Raja gave a book to Rani and --- a pen to Ramu

rajaa raaNi-kku oru puttakam-um --- raamuv-ukku oru peenaav-um

koTu-tt-aan

Raja Rani_DAT one book_CO Ram_DAT one pen_CO give_PAST_he

--- *raaNikku oru puttakamum --- raamuvukku oru peenaav-um rajaa koTu-tt-aan*

Rani_DAT one book_CO Ram_DAT one pen_CO Raja give_PAST_he

In English subordinate clauses may begin with relative pronouns such as *that*, *what*, *whatever*, *which*, *who* and *whom*, as well as with words such as *how*, *when*, *where*, *wherever* and *why*. In the following examples, the subordinate clauses are italicized.

e.g.

The house, *which stood on a hill*, could be seen for miles.

I wonder *how he did that*.

Tamil makes use of certain postpositions to subordinate clauses under main clauses. For example, *paTi*, *paRRi*, *kuRittu*, *pootu*, *poola*, *pinnaal*, *piRaku*, *munnaal*, *munnar*, *atanaal*, etc are used as subordinators to embed clauses. The subordinate verb will be in the following forms: verbal participial form, infinitival form, non-finite form gerundival form (nominalized by *-atu*), relative participial form (adjectival form) and finite form. Some forms of the subordinate verbs do not require a subordinator.

Relationship	Subordinators	Form of subordinate verb	Example
1. Time: from, up to	<i>mutal</i> 'from', <i>varai</i> 'up to'	<i>atu</i> -suffixed gerundival form	<i>avan vandtau mutal enakku nimati illai</i> 'I dot have peace from the time he came (lit)'
2. Time: before	<i>munnar</i> , <i>munnaal</i>	<i>atu</i> -suffixed gerundival form+ Dative -ukku	<i>avan varuvataRku munnar avaL vandtu viTTaaL</i> 'She had come before he came'

2. Time: after	pinnaal, pinnar	infinitive form	<i>avaL vandta pinnal avan vandtaan</i> ‘He came after she had come’
2. Time: at that time/ while	pootu	Infinitive form	<i>ndaan avaL uRangkum pootu paartteen</i> ‘I saw her while she was seeing’
3.Cause/ Effect	<i>aanaal</i>	Atu-suffixed gerundival form	<i>ndii varuvataanaal ndaan varuveen</i> ‘If you come, I will come’
4. Condition	<i>-aal</i>	V+Past Tense stem	<i>ndii vandtaal ndaanum varuveen</i> ‘If you come, I will also come’
5. Contrast	<i>maaRaaka, etiraaka</i> ‘against’	atu-suffixed gerundival form + Dative	<i>avaL connataRku maaRaaka avan ceytaan</i> ‘He acted against what she said’
5. Harmony	<i>paTi</i> ‘as’	infinitive form	<i>avaL avan conna paTi keTkavillai</i> ‘She did not act as he said’
	<i>poola</i> ‘as	atu suffixed gerundival form	<i>avaL avan connatu poolak keTTaaL</i> ‘She acted as she said’
6. About	<i>paRRi</i> ‘about’ <i>kuRittu</i> ‘about	atu suffixed gerundival form + Accusative <i>ai</i>	<i>avan avaL connataip paRRi aalocittaan</i> ‘He thought about what she had said’
6.Complementation	<i>enRu, enpatu, enRaal, enRaalum, aanaal</i>	Finite form	<i>avaL ndaan varavillai enRu kuuRinaaL</i> ‘She said that she would not come’ <i>avaL varavillai enRaal ndaanum varamaaTTeen</i> ‘If she did not come, I too will not come’
	<i>aaka</i>	atu suffixed gerundival form	<i>avan taan ndaaLai varuvataak kuuRinaan</i> ‘He said that he would come tomorrow’

		Finite form (complemented by verbs of communication or expression in)	<i>avan, “ndaan ndaaLai varuveen.” enRaana</i> ‘He said “I will come tomorrow .”
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English being an SOV language has the subordinate clause of a complex sentence preceding or following the main clause, whereas Tamil being SOV language has the subordinate clause mostly preceding the main clause. The subordinate clauses are introduced by subordinating conjunction. Also the subordinating conjunctions precede or follow the other constituents of the constituent clause in English, whereas, in Tamil they follow the other constituents of the subordinate clause.

6.8. Summary

A very elaborate introduction is given on coordination and subordination in English and Tamil. This is followed by the discussion on the problems in defining coordination and subordination. Next is about the constituents of coordination. Under this heading the major constituents of coordination, minor constituents of coordination, and government and concord are discussed. After this coordinate structure reduction is described. Under this heading a traditional approach and some criticism on coordination, distinct markers for the two types of conjoining, non-existence of full clause equivalents, symmetric predicates, and reduction by proform are discussed. This is followed by a discussion on the typology of coordinate structure reduction. Under this heading the theoretical options and coordinate deletion are discussed. Next is about subordination. Under this heading forms of subordinate clauses, functions of subordinate clauses, nonfinite clauses, verbal participle clause, conditional clause, adjectival or relative clause, correlative clause construction, and relative participle constructions are discussed. After this the difference between correlative clause and relative participle clause is described. This followed by the comparative account of coordination and subordination.

CHAPTER 7

COMPLEMENTATION IN ENGLISH AND TAMIL

7.0. INTRODUCTION

The term complementation is used in the analysis of grammatical function, to refer to a major constituent of sentence or clause structure, traditionally associated with ‘completing’ the action specified by the verb. In its broadest sense, complement therefore is a very general notion, subsuming all obligatory features of the predicate other than the verb, e.g. objects (e.g. *He kicked **the ball***) and adverbial (e.g. *He is **in the garden***). In some approaches, the complement is given a more restricted definition, e.g. to refer only to the ‘completing’ function of structures following the verb *to be* (or similar verbs) – in such an analysis, *He kicked the doctor* would be subject-verb-object; whereas *He is a doctor* would be subject-verb-complement. A further distinction is sometimes made between complements of the subject and those of the object, as in *He is **a doctor*** (subject complement) and *He called me **a fool*** (object complement). Complement clauses of various kinds are recognized, this notion sometimes being interpreted as any kind of subordinate clause, sometimes as only one type of subordinate clause (e.g. a clause following *be*, such as *That is what I said*). However, the domain of complementation remains an unclear area in linguistic analysis, and there are several unresolved issues, e.g. whether the participles in phrasal verbs (e.g. *come in*) should be subsumed under this heading. In generative grammar, a complement is a sister constituent of zero-level category. Categories other than the verb are also sometimes said to take complements, e.g. in *a student of physics*, *of physics* is said to be the complement of student. In x-bar syntax, the term is used in opposition to adjunct (cf. *a student with long hair*).

Sivakumar (1980) who has discussed elaborately about complementation in Tamil has taken up only sentences or clauses embedded in other sentence or clause as complements. This process can be called as sentential complementation, which is different from word complementation in which simple noun phrases, adjective phrases and adverbials are considered as complements (cf. Quirk et al). Complementation can be distinguished from relativization, coordination and subordination.

7.1. Complementation in English

“A Grammar of Contemporary English” (Quirk et al 1972) divides the predicate into four important and distinct units. The units are verb, complement, object and adverbial, abbreviated as V, C, O, and A; together with the subject (S), they constitute the elements of sentence structure. The

following are the examples given:

1. John [S] carefully [A] searched [V] the room [O].
2. The girls [S] is [V] a student [C] at a university [A].
3. His brother [S] grew [V] happier [C] gradually [A].
4. It [S] rained [V] steadily [A] all day [A].
5. He [S] had given [V] the girl [O] an apple [O].
6. They [S] make [S] him [O] the chairman [C] every year [A].

Complements are further divided into subject complements and object complements. The subject complements are illustrated below:

7. The girl is now a student (Cs) at a large university.
8. His brother grew happier (Cs) gradually.

It is claimed that the complements in the sentences given above have a straight forward relation to the subjects of their respective sentences such that, the subject of 7 is understood as being *a girl student* and the subject of 8 *a happier brother*. The object complement can be explained as having a similar relation to the direct object (which it follows) as the subject complement has to a subject. The following sentence is given as an illustration for object complement.

9. They make him the chairman (Co) every year.

The grammar distinguishes three types of verbs where no complementation occurs.

- (i) 'Pure' intransitive verbs, which can never take an object, as in

10. Our friends have arrived.

- (ii) Verbs, which can be transitive or intransitive with little or no difference in meaning or in subject verb relationship, as in

11. He smokes (cigars) every day.

- (iii) Verbs, which can be transitive or intransitive but with considerable difference in meaning or in subject verb relationship.

12. The light shone from the far corner.
13. He grew rapidly during that period.
14. He shone the light from the far corner.
15. He grew tomatoes as a hobby.

In the cases where complementation occurs, the authors identify four main types. They are:

- [A] Intensive
- [B] Monotransitive
- [C] Ditransitive
- [D] Complex transitive

The following sentences are given as examples for each type of complementation:

Intensive Complementation (Type A)

[A1] Noun Phrase complement, as in

15. John is a nice boy

[A2]) Adverbial complement, as in

17. He is at school today.

Adjective Phrase complement

[A3] Adjective phrase complement without post modification:

18. John is (very) bright.

[A4] Adjective Phrase with prepositional phrase post modification:

19. He was bad at mathematics

[A5] With finite clause post modification

20. I am sure that he is here now.

[A6] With to- infinitive post modification

21. He is splendid to wait.

Monotransitive Complementation (Type B)

[B1] Noun phrase objects

22. The Boys caught the ball

[B2] Prepositional objects

23. He concentrated on the song.

[B3] Finite clause objects

24. I suppose that he will be coming.

Non-finite clause objects

[B4] *To*-infinitive without subject

25. John longed to do his homework

[B5] *-ing* participle without subject.

John began signing in the shower.

[B6] *To*-infinitive with subject

26. I told him to see a doctor

[B7] Bare infinitive with subject

27. They heard him come.

[B8] *-ing* participle with subject

I dislike him stealing money.

[B9] *-ed* participle with subject

28. The tourists found the chair occupied.

Ditransitive complementation (Type C]

[C1] Indirect + direct noun phrase object

29. He gave the girl a doll.

[C2] Direct + Prepositional object

30. We compared the boy with his parents.

[C3] Noun phrase + finite clause object

31. John convinced me he was right.

Complex transitive complementation (Type D)

[D1] Object + Noun phrase complement

32. We considered Bill a friend

[D2] Object + Preposition + Noun Phrase complement

33. People recognized him as a genius.

[D3] Object + Adjective phrase complement

34. We painted the house white

[D4] Object + Prepositional adjective phrase complement

35. The teacher described him as hopeless ~ He was described as hopeless.

7.2. Complementation in Tamil

A complement is that which fills up or completes. Complementing is the action of fulfilling or completing and a complement makes the sentence or clause complete or perfect and supplies what wants. A complementizer links the complement clause to the matrix clause. A complement is a constituent whose function is to fill or complete the meaning of another constituent in the same construction. The term ‘complement’ has been traditionally used to refer to any word (other than a verb), phrase or clause which is an obligatory constituent of the predicate. However, this term has been used to refer to any S, which is introduced into the structure as a co-constituent (i.e. either as a

left sister or right sister) of some head item. This head item may be one of the major lexical categories that occur in the deep structure (Sivakumar 1980). Sivakumar (1980) has used the term ‘complement’ to refer any sentence introduced into another sentence structure as a co-constituent (i.e. as the left sister) of some head item such as a noun or verb. He calls this process as ‘complementation’. Look at the following examples.

36. *ndaan raajaa va-ndt-aan enRa ceytiy-aic co-nn-een*

I Raja come_PAS_he COM news say_PAS_I

‘I told the news that Raja came’

37. *ndaan avaL-aip paarkk-um eNNatt-ai maRandtuviT-T-een*

I she_ACC see_FUT_RP idea_ACC forget_PAS_I

‘I have forgotten the idea of seeing her’

38. *ndaan avan varu-kiR-aan enRu ndinai-tt-een.*

I he come COM think_PAS_I

‘I thought that he was coming’

39. *ndaan raajaav-ai var-ac co-nn-een.*

I Raja_ACC come_INF asked’

In the examples 36 and 37, the sentential complement are on the noun *ceyti* ‘news’ and *eNNam* ‘idea’ in the example 38 and 39, the sentential complements are on the verbs *ninai* ‘think’ and *col* ‘say’, respectively.

Thus, it is assumed in the deep structures of 35 and 36 that the NP node directly dominates the sentential complements. Hence, these complements are called ‘Noun Phrase complements’ and ‘Noun phrase complementation’ is the process of embedding sentence into the noun phrase of other sentences. It will appear from this definition that complementation and a similar NP embedding process like relativization are one and the same. If the head item that takes the complement is a noun,

the embedded complement will describe the content of the noun; if the head item is a verb, the complement will function like a sentential object.

7.2.1. Types of Noun phrase complementation

The present work is concerned in general with five types of noun phrase complementation in Tamil. In all these five types, the sentential complements are directly dominated by a noun phrase. They are given below:

1. Sentence-Complementizer-Noun complementation

40. *ndaan [[raajaa va-ndt-aan-Vfin]S enRa ceytiy-aic]]CP co-nn-een*

‘I told the information that Raja came’

I Raja come_PAS_he COM news say_PAS_I

2. Sentence-Noun complementation.

41. *ndaan [[raajaa va-ndt-a-ADJP] takaval-aic]]CP co-nn-een*

I Raja come_PAS_ADJP information_ACC say_PAS_I

‘I told the information that Raja had come’

3. Sentence-Complementizer complementation

42. *ndaan [[raajaa vandtuviT-T-aan]S enpat-aic]CP conneen.*

I Raja come_PAS_he COM_ACC say_PAS_I

‘I told that Raja came’

43. *[ndaan raajaa va-ndt-aan]S enRu co-nn-een.*

I Raja come_PAS_he COM say_PAS_he

‘I told that Raja came’

4. Sentence-Nominalizer complementation

44. *ndaan [raajaa va-ndt-at-aic]CP co-nn-een.*

I Raja come_PAS_NOM_ACC say_PAS_I

‘I told of Raja’s coming’

5. Infinitive complementation

45. *ndaan [raajaavai varac_Vinf]S conneen.*

I Raja_ACC come_INF say_PAS_I

‘I asked Raja to come’

In “sentence-complementizer-noun complementation” the complement is an S carrying a finite verb. This S is complemented by the complementizer *enRa*, which is in adjectival participle form. So *enRa* takes a noun (*ceyti* ‘news’) and inflect for accusative case. Thus the whole construction S+*enRa*+N+ACC is embedded under the matrix clause as an object of the verb *col* ‘say’.

In “sentence-noun complementation” the embedded S, which is in adjectival participle form, takes a noun (*takaval* ‘information’), which inflects for accusative case to embed under the matrix clause as an object of the verb *col* ‘say’.

In “sentence-complementizer complementation”, the complement S is a finite clause carrying a finite verb. The complementizer *enpatu* is a nominalized form. So *enpatu* inflect for accusative case. The whole construction S+*enpatu*+ACC get embedded under the matrix clause as an object of the verb *col* ‘say’.

In “sentence-nominalizer-complementation” the embedded S, which is adjectival participle form, is nominalized by *atu* and then get inflected for accusative case (*vantatai* = *vandta_ADJP+atu_NOM+ai_ACC*) to embed in the matrix clause as an object of the verb *col* ‘say’.

In “infinitive complementation” the S, which is in infinitive form, is embedded in the matrix clause. The matrix clause carries the accusative case phrase, which is co referential with the deleted NP subject in the embedded clause.

46. *ndaan raajaav-ai [var-ac_Vinf]S co-nn-een.*

I Raja_ACC come_INF say_PAS_I

‘I asked Raja to come’

Lehmann (1989) does not make a distinction between subordinate clause and complement clause. He deals both subordination and complementation under complementation. For him everything which is an S and which is embedded under another S is complementation. He distinguishes four types of complementation.

- Noun phrase complementation
- Postpositional phrase complementation
- Predicate complementation
- Adjoined complementation

Some of these have been discussed under subordination in chapter 6.

7.3. A Comparative account of Complementation in English and Tamil

In Tamil the S is embedded under the matrix sentence to the left of the matrix clause. The subject of the matrix clause can occur at the sentence initial position. In English S is embedded under matrix clause to the right of the matrix clause. The word complementation includes simple noun phrases, adjective phrases and adverbial phrases as noted by the authors of “A Contemporary Grammar of English”. In relativization also, sentences are embedded to the left of a head; but it is argued that complementation is different from relativization, though both of them are NP-embedding process. Complementation is found to be a recursive process, which enriches the structure of the language.

In English the complementizer *that* embeds S which is a finite clause. In Tamil there are two groups of complementizers. The first group of complementizers is *enRu*, *enRa*, *ena* and *enpatu*, which embed an S in finite clause. The second group of complementizers is *aaka*, *aakiya*, *paTi* and *aaRu*. The *aaka* and *aakiya* are always linked to the nominal form of the complement. The complementizers *paTi* and *aaRu* are always linked to the future relative participle of the verb of the complement and they occur only with limited group of verbs like *col* ‘say’, *uttaraviTu* ‘order’, *veeNTikkoL* ‘request’, etc. These complementizers are also substitutable for *enRu*. It has to be noticed that English makes indirect speech different from direct speech by making use of the complementizer *that*, by changing the subject-pronoun to suit the subject of matrix *say*-verb and by changing the tense and aspect of the embedded verb as past or participle as per requirement. In Tamil

the difference between direct speech and indirect speech by making use of *en*-complementizers is vague.

47. a. He said, “I will come tomorrow.” (Direct)

b. He said that he would come the next day. (Indirect)

c. *avan ndaan ndaaLai varu-v-een enRu co-nn-aan* (Tamil: Direct?)

he I tomorrow come_FUT_I that say_PAS_he

‘*He said that I will come tomorrow (lit-trans.)

d. *avan taan ndaaLai varu-v-at-aakac co-nn-aan* (Tamil: Direct?)

he himself tomorrow come_FUT_NOM_COM say_PAS_he

‘He said that he would come tomorrow’ (Tamil: Indirect?)

48. *ndaan raaNi varu-v-ataakak kuuRineen.*

I Rani come_FUT_NOM_COM say_PAS_he

‘I said that Rani is coming’

49. *ndaan raaNi varu-v-at-aakiya ceytiy-ai avaniTam kuuR-in-een*

I Rani come_FUT_NOM_COM news_ACC he_to say_PAS_I

‘I told him about Rani’s coming’

50. *raaNi ndaan co-nn-a-paTi/aaRu cey-t-aaL*

Rani I say_PAS_ADP_COM do_PAS_she

‘Rani did as I told her’

7.4. Summary

This chapter starts with a brief introduction about complementation. After this the complementation in English is described elaborately. This is followed by an elaborate discussion on complementation in Tamil. Under this heading the types of noun phrase complementation in Tamil are discussed. After this a comparative account of complementation in English and Tamil is given.

CHAPTER 8

WORD ORDER IN TRANSLATION

8.0. Introduction

The aim of this chapter is to explore the possibility of using the findings made in the previous chapters on the contrastive analysis of English and Tamil based on the word order typology of the two languages for translation. Translation – to be short, the process of transferring a text from one language into another – is a very challenging job involving a number of problems. Most of these crop up due to the linguistic and cultural differences between the source language (SL) and the Target Language (TL). Accordingly, we talk about the linguistic problems and cultural problems in any translation from English into Tamil. Linguistic problems may be triggered off by any difference between the SL and TL in terms of morphology or syntax. In syntax word order is crucial and if it is different in TL from SL, problems might arise in translation. The present chapter deals with the problem created by the word order in any translation from English into Tamil and vice versa.

In the course of this approach, apart from the differences in word order, we will be looking at the difference in the clause structure and the arrangement of the clauses in complete and multiple sentences between English and Tamil and how they pose problems in translation.

8.1. Problem of word order difference

We have seen in the previous chapters that word order in English is different from that of Tamil. While it is predominantly SVO in English, it is SOV in Tamil. Further, in English the word order is rigid whereas it is flexible in Tamil. Tamil allows variation on its basic word orders.

1. a. I saw him (S VO)

b. *ndaan avanai paartteen* (SOV)

I_Acc he_ACC see_PAS_I

c. *avanai ndaan paartteen* (OSV)

he_ACC I see_PAS_I

Though this difference between the two languages in word order does not create any problem by itself, it does pose problems which cannot be solved when coupled with other differences particularly that of modification. But in modification it does pose problems which cannot be easily solved.

8.2. Problem of clause structure difference

Clause structure in English is different from that of Tamil. While subordination in English is carried by finite clauses, in Tamil it is carried by non-finite clauses. In Tamil, it is always the finite verb that comes at the end of a sentence. The non-finite verbs precede the finite verb; consequently, subordinate clauses in complex and multiple sentences always occur before the main clause (S). This difference leads to a difference between English and Tamil in the arrangement of subordinate clauses in complex and multiple sentences. In English the order of the subordinate clauses in a complex or a multiple sentences is flexible. They can either precede the main clause or follow it. Sometimes they can also occur in the middle of a main clause. But in Tamil, the order of the subordinate clauses is fixed. They can only precede the main clause. The main clause is invariably placed at the end of the sentence. The following example will illustrate the point.

2.a. Raja shook his head after enquiring about the price of the computer.

b. *raaja kaNini vilaiy-ai keT-TuviT-Tu talaiyacai-tt-aan.* (Translation equivalent in Tamil to a.)

Raja computer price_ACC ask_VBP_leave_VBP head_shake_PAS_he

3. a. Yesterday night while eating Raja enquired about the examination result to Rani

b. *ndeeRRu iravu raajaa caappiT-um pootu raaNiy-iTam teervu muTivu paRRi keeT-T-aan.* (Translation equivalent in Tamil to a.)

yesterday night Raja eat_FUT_RP time Rani_TO test result about ask_PAS_he

It is interesting to observe that a language like Tamil, having a free order is rigid in its clause order while a language like English, having fixed word order is flexible in the arrangement of the clauses. Further research is needed in this area to see whether it is, a linguistic universal that languages with

free order (e.g. Tamil) would have restrictions on clause order, and languages with fixed word order (e.g. English) would have flexibility in clause order.

The difference in the clause order between English and Tamil produces some special problems in translation. In English, we can have long sentence if all the subordinate clauses are placed before the main clauses. But such sentences are rarely used in Tamil. Short sentences are preferred to long sentences in Tamil. The reason is that in a long sentence if all the subordinate clauses are placed before the main clause the sentence lacks comprehension. Therefore, in translation the long sentences of English are to be broken up into many simple and / or complex sentences in Tamil. The following example shows that if a long sentence of English is translated into a single sentence in Tamil, the sentence lacks clarity and becomes even unnatural and artificial.

4.a. The first attempts at producing a grammar of English were made when there were less than ten million speakers of English in the world, almost all of them living within 100 miles or so of London.

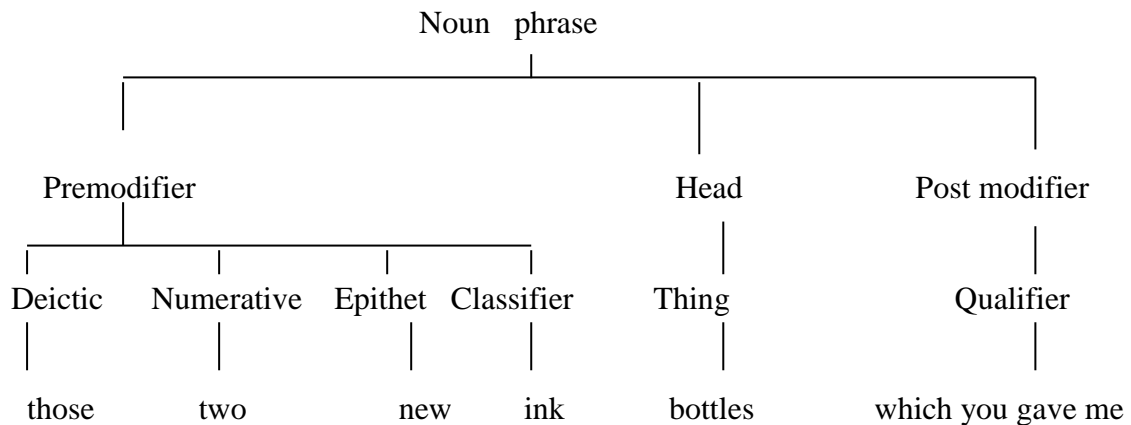
b. *pattu milliyanukkum kuRaindta peecupavarkaL laNTanilirundtu 100 mailkaLukkuL ulakil irukkaiyil aangkila ilakkaNattai uruvaaka mutal muyaRcikaL eTukkappaTTana.* (Tamil equivalent to a)

8.3. Problem of difference in relativization

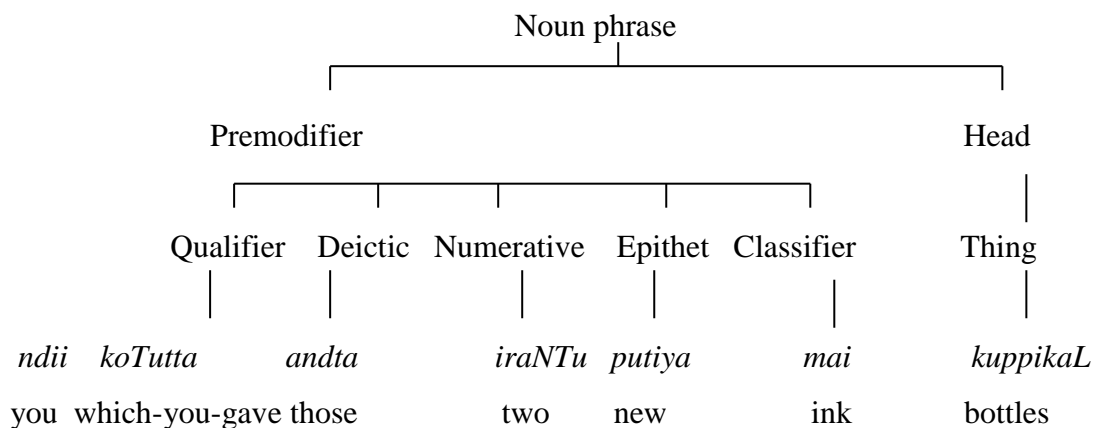
As pointed out earlier, in Tamil the subordinate clauses in a complex sentences always occur before the main clause. This creates a problem in the translation of relative clauses from English into Tamil. In English, in a nominal group (NP) relative clauses occur as post – modifiers while their equivalents in Tamil, which are relative participles occur as pre -modifiers.

The experimental structure of the nominal group in English and Tamil is shown by the following tree diagrams.

1. English



2. Tamil



Consider the following examples:

5.a. Thousand teachers who participated in the strike yesterday were arrested by the police.

b. *ndeeRRu veelaiindiRuttatt-il kalandtuko-NT-a aayiram aaciriyarkaL pooliicaar-aal kaituceyappaT-T-anar.* (Translation equivalent of a.)

yesterday strike_LOC participate_PAS_RP thousand teachers police arrest_PAS_they

It can be observed that in 5a. the relative clause followed the main clause while the relative participle precedes the main clause in 5b. Thus whatever is said at the beginning of the sentence in English is said at the end of Tamil and vice versa. Consequently, the focus of the sentence is changed in the

translation. Further, the original complex sentence is translated as a single sentence in Tamil, thereby resulting in obscurity. A translator is welcome to translate a complex sentence of English into a complex sentence in Tamil, but when it hinders the readability of the sentence, he has to convert the sentence into two simple sentences. For instance, if the sentence 5b. were to be split up into the following two sentences there would not have been any problem. The translation could have made easy reading.

6. *ndeeRRu veelaiindiRuttatt-il aayiram aaciriyarkaL kalandtuko-NT-anar. avarkaL pooliicaar-aal kaitucey-a-ppaT-T-anar.*

yesterday strike_LOC thousand teachers participate_PAS_they. they police_INS arrest_INF_PASS_PAS_they

‘Thousand teachers participated in the strike yesterday. They are arrested by the police.’

Let us consider another problem that arises out of premodification in Tamil. Examine the following:

7.a. I looked directly into her eyes, those reveal the thought of the mind.

b. *manat-in cindtanaiy-ai veLippaTutt-um avaL kaNkaL-ai ndeeraaka ndookk-in-een.* (Tamil equivalent of a.)

mind’s thought_ACC reveal_FUT_RP her eyes_ACC directly look_PAS_I

In 7a. the appositional construction, ‘*those reveal the thought of the mind*’. But in 7b. its equivalent modifies the noun phrase *avaL kaNkaL* ‘her eyes’. This has resulted in a difference in meaning between 7a and 7b. Whatever is said in English about eyes in general is said in Tamil about the eyes of the person referred to. There are two reasons for this difference in meaning. One of them is premodification. The other is word order. In Tamil the word order is generally SOV. But the main clause in 7b, *avaL kaNkaLai ndeeraakap ndookkineen*, which is literally, ‘(I) looked his eyes directly’. The pronominal subject, *ndaan* ‘I’ is dropped. (It can be noted that in Tamil pronominal subjects can be dropped optionally because they can be inferred from the verb which carries the Person-Number-Gender suffix).) Therefore, the adjectival phrase is placed immediately before the object noun phrase and this is what has led to the difference in meaning in translation.

The translator could have broken up the sentence 7a, into the following two sentences 8.a and 8.b in Tamil to avoid the problem. Alternatively, if the translator wanted to translate the sentence 7a

into a single sentence in Tamil, perhaps, he could have translated it into a sentence like the one given under 9.

8.a. *kaNkaL manat-in cindtanaikaL-ai veLippaTu-tt-um.*

eyes mind's thoughts_ACC reveal_FUT

'Eyes reveal the thought of the mind.'

b. *enavee ndaan avaL kaNkaL-ai ndeeraaka ndookk-in-eeen.*

that_is_why I her eyes_ACC directly look_PAS_I

'That is why I looked into her eyes'

9. *kaNkaL manat-in cindtanaikaL-ai veLippaTutt-um enRu karut-i ndaan avaL kaNkaLai ndeeraaka ndookkineen.*

eyes mind's thought_ACC reveal_FUT_it COM think_ADVP I her eyes directly look_PAS_I

'Having thought that eyes reveal the thought of the mind I looked directly into her eyes.'

8.4. Problem of apposition

In English, we find apposition in some sentences as in the following examples:

10. a. The science teacher, Raja, did not come to college.

b. Rani, the distinguished doctor, died in an accident yesterday.

However, such apposition is not possible in Tamil. Therefore, in any translation from English into Tamil, particularly if the authors resort to literal translation, such sentences create problems. Consider the following:

11.a. For the test, I received some coaching for certain subjects from my dear friend and classmate, Tamil Selvan, son of my uncle Anpu Selvan.

b. *teervukku veeNTi cila paaTangkaLukku ndaan en maamaa anpu celvanin makanum en nderungkia ndNpanum vakupput toozhanumaakiya tamizh celvaniTamirundtu ciRitu payiRci peRReen.*

test_DAT for some subject_DAT I my uncle Anpu Selvan's son_and my dear friend_and
class mate_become_RPM Tamil Selvan_ABL coaching receive_PAS_I

c. *teervukku veeNTi cila paaTangkaL-ukku ndaan en cineekitanum vakupput toozhan-um-
aakiya en maamaa anpu celvanin makan tamizh celvaniTamirundtu payiRci peRReen.*

test_DAT some subject_DAT I my friend_and class mate_become_RP my uncle

Anpu Selvan's son Tamil Selvan_ABL coaching receive_PAS_I

The Tamil translation has two sentences and the sentences 11.c is ambiguous and can have two readings. According to one reading 'my friend' applies to Uncle Anpu Selvan and according to another, it applies to Tamil Selvan. In the absence of oppositive construction in Tamil, the translator has no alternative if he chooses to restrict the number of sentence to two. It is not possible to have as in English, *tamizhc celvan, anpuc celvan maamaa makan*. The only solution is to break up the sentence further as shown in the following to avoid the ambiguity.

13. a. *teervukku veeNTi cila paaTangkaL-ukku ndaan tamizh celvan-iTam ciRitu payiRci
peR-R-eeen.*

test_DAT for some subjects_DAT I Tamil Selvan_with some coaching receive_PAS_I

'I received some coaching form Tamil celvan'

b. *avan en maamaa anpuc celavan-in makan-um en nderunkiya ndaNpanum aavaan.*

he my uncles Anpu Selvan's son_CO my dear friend_CO is_FUT_he

'He is my Uncle Anpu Selvan's son and my dear friend too.'

8.5. Conclusion

Every translation bears the stamp of the SL and comprises many instances which show that the translator is carried away by the structure of the SL. As the translator works with the SL, a number of SL syntactic features creep into the translation with or without his knowledge. This makes the languages of the TL unnatural and artificial. This is precisely what has led to the view that the language of translation is a third language. It is neither the SL nor the TL but altogether a different language, a third language. In the course of the above discussion, we have seen how difference in the arrangement of the clauses in embedded sentences between English in embedded sentences

between English and Tamil creates problems in the translation. The problems will be more if the translator attempts to make a sentence for sentence translation taking sentence as the unit of translation. There are bound to be certain pitfalls in any translation which arise due to the lack of correspondence between the SL and TL. The translator has to be aware of them and should not fall a victim to them if he wishes to give the TL readers a text in their own native idiom and style.

CHAPTER 9

CONCLUSION

As stated in the introduction, the main objective of the thesis to study the word order typologies of English and Tamil and to utilize the output of the study for framing rules to transfer the English word order structure into Tamil word order structure and vice versa and thereby giving guide lines to make the translation between the two languages.

The research undertaken needs strong foundation on word order typology and linguistic universals. This has been fulfilled by the first chapter which lays a foundation for the present study by discussing various issues on word order typology in the light of language universals. The word order typological studies of Greenberg and his followers have been elaborately discussed.

Another area related to the research work is the distinction to be made between word order typology in terms of the occurrence of subject (S), object (O) and verb (V) in sentences. This leads to group English as an SVO language and Tamil as an SOV language. Elaborate discussions on the characteristics of English as an SVO language and Tamil as an SOV language have been made. It has been found during the study on this line of thinking that the SVO and SOV difference reflects on the entire structural patterns of the two groups of languages. It has been realized during the study on the word order of English that English exemplifies characteristic features of SVO languages, such as the patterns that have been developed in the verbal modifying constructions, the wide use of substitutes and the grammatical processes used to highlight the elements of sentences. The verbal patterns make heavy use of auxiliaries, which are also involved as substitutes and in interrogative and negative constructions differentiating English in this way from (S)OV languages like Japanese and VSO languages like Easter Island. The grammatical processes involved in distinctive constructions like clefting is unique in English. An examination of the characteristic typological patterns discloses on one hand the expected constructions found in SVO languages and on the other the basic structure of English.

Tamil is a verb-final language. Word order in the sentence is relatively free, as long as the sentence ends with a main verb. The subject-initial sentence pattern is the most common among the various word order patterns. It was found that sentences with SOV word order occur more frequently than sentences with OSV order. (This is a cross-language characteristic, as observed in Greenberg

1963, Greenberg's Language Universal 1 : in declarative sentences with nominal order is almost always one in which the subject precedes the object.) Greenberg's observation is not without exception. There is, however, at least one syntactic argument for hypothesizing SOV, and not, say OSV, as representing the underlying word order for Tamil.

As phrasal difference between the two languages are already made by Rangan and Renuga Devi, it is decided in this research work to concentrate mainly on clauses. So focus is given to relative clauses, coordinate clauses, subordinate clauses and complement clauses.

The positional and structural typology of relative clauses shows in essence that prenominal relative is the most basic type for SOV languages like Tamil and postnominal relative for SOV languages like English and VSO languages, with a few exceptions. The replacive relatives and right-extraposed co-relatives are derivatives of either of the above. Correlative relative clauses (left-extraposed co-relatives) are most prominent in SOV languages with no pronominal relatives, although they are marginally used in SOV languages with pronominal relatives as a functional alternative. Prenominal relatives are formed out of deleting the relative NP and adding a relative marker to the verb of the relative clause. Postnominal relatives are the result of WH-movement (chopping or copying) in SVO languages. In VSO languages postnominal relatives are formed out of deletion or pronominalization of relative NP and insertion of a relative particle. In correlative relative clauses both the head NP and the relative NP are normally retained in their full lexical forms with their case and postpositional markings.

English being an SOV language has the subordinate clause of a complex sentence preceding or following the main clause, whereas Tamil being SOV language has the subordinate clause mostly preceding the main clause. The subordinate clauses are introduced by subordinating conjunction. Also the subordinating conjunctions precede or follow the other constituents of the constituent clause in English, whereas, in Tamil they follow the other constituents of the subordinate clause.

In Tamil, the S is embedded under the matrix sentence to the left of the matrix clause. The subject of the matrix clause can occur at the sentence initial position. In English S is embedded under matrix clause to the right of the matrix clause. The word complementation includes simple noun phrases, adjective phrases and adverbial phrases as noted by the authors of "A Contemporary Grammar of English". In relativization also, sentences are embedded to the left of a head; but it is

argued that complementation is different from relativization, though both of them are NP-embedding process. Complementation is found to be a recursive processes which enriches the structure of the language.

In English the complementizer *that* embeds S which is a finite clause. In Tamil there are two groups of complementizers. The first group of complementizers are *enRu*, *enRa*, *ena* and *enpatu* which embed an S in finite clause. The second group of complementizers are *aaka*, *aakiya*, *paTi* and *aaRu*. The *aaka* and *aakiya* are always linked to the nominal form of the complement. The complementizers *paTi* and *aaRu* are always linked to the future relative participle of the verb of the complement and they occur only with limited group of verbs like *col* ‘say’, *uttaraviTu* ‘order’, *veeNTikkoL* ‘request’, etc. These complementizers are also substitutable for *enRu*. It has to be noticed that English makes indirect speech different from direct speech by making use of the complementizer *that*, by changing the subject-pronoun to suit the subject of matrix *say*-verb and by changing the tense and aspect of the embedded verb as past or participle as per requirement. In Tamil the difference between direct speech and indirect speech by making use of *en*-complementizers is blurred.

It has been said in the introduction that the main aim and objective of this research work is to explore the possibility of using the findings made in study on the contrastive analysis of English and Tamil based on the word order typology of the English and Tamil for translation. Translation – to be short, the process of transferring a text from one language into another – is a very challenging job involving a number of problems. Most of these crop up due to the linguistic and cultural differences between the source language (SL) and the target Language (TL). Accordingly, we talk about the linguistic problems and cultural problems in any translation from English into Tamil and vice versa. Linguistic problems may be triggered off by any difference between the SL and TL in terms of morphology or syntax. In syntax word order is crucial and if it is different in TL from SL, problems might arise in translation. The eighth chapter deals with the problems created by the difference in word orders of English and Tamil in translation from English into Tamil and vice versa.

REFERENCES

- Abraham, P. T. 1978. Relative Clause in Malayalam. Annamalai University, Annamalai Nagar.
- Agesthialingom, S. 1967. A Generative Grammar of Tamil (A Fragment of Tamil Syntax). Annamalai University, Annamalai Nagar.
- Agesthialingom, S. 1988. "Teaching Tamil as a Foreign language". In: N. Radhakrishnan and N. Rajasekharan Nair, N. (eds.) Linguistics in class room. Abhi and Ajit Publishers, Gandhinagar, Kerala, pp. 122-128.
- Agesthialingom, S. and Shanmugam S. V. (eds.). 1972. Third Seminar on Dravidian Linguistics. Annamalai University, Annamalai Nagar.
- Aissen, Judith 1983. "Indirect object advancement in Tzotzil." In: David Perlmutter (ed.) Studies in Relational Grammar, Vol.I, 272-302. Chicago Press.
- Annamalai, E. 1969. Adjectival Clauses in Tamil. Phd dissertation, University of Chicago.
- Annamalai, E. 1972. "The Participial Noun in Tamil – Some Problems." In: Agesthialingom and Shanmugam (eds.).
- Annamalai, E. (ed.) 1997. Adjective clause in Tamil. Institute for the study of language and culture of Asia and Africa, Tokyo.
- Arden, A. H. 1976. (First Print 1891). A Progressive Grammar of the Tamil Language. The Christian Literature Society, Madras.
- Arden, A. H. 1980. "Agreement Markers in T. Verbals." IJDL, Vol. IX No. 1, Dravidian Linguistics Association, Trivandrum.
- Arden, A. H. 1982. "A Brief on Dravidian and Indo-Aryan Complement Markers." In: Aryvukkoovai-14, Part. 2, All India University Tamil Teachers' Association, Dept. of Linguistics, Annamalai University, Annamalai Nagar.
- Arden, A. H. 1984. Complers and Complements in Tamil. Unpublished report submitted to the International School of Dravidian Linguistics, Trivandrum.
- Bell, Alan 1978. "Language samples." In: Joseph H. Greenberg, Charles A. Ferguson and Edith A. Moravcsik (ed.). Universals of human language, vol. 1: Method and theory. 123-56. Stanford: Stanford University Press.
- Bresnan, J.W. and J. Grimshaw. 1978. "The Syntax of Free Relatives in English," Linguistic Inquiry, 9, pp. 331-391.
- Chomsky, Noam. 1965. Aspects of the theory of syntax. Cambridge, Mass.: MIT Press.

- Chomsky, Noam & Halle, Morris 1968: The sound pattern of English. Studies in Language. New York: Harper & Row.
- Comrie, Bernard. 1975. "Causatives and universal grammar," Transactions of Philological Society, 1-32. Oxford: Basil Blackwell,
- Comrie, Bernard 1976: "The syntax of causative constructions: cross-language similarities and divergences." In: Shibatani (1976) 261-312.
- Comrie, Bernard. 1978a. Language Universals and Linguistic Typology. Oxford, Basil Blackwell.
- Comrie, Bernard 1978b. Definite direct objects and referent identification. Pragmatics Microfiche (Oxford: Basil Blackwell) 3.I.D3.
- Comrie, Bernard 1978c. "Ergativity." In: Winfrid Lehmann (ed.) Syntactic typology, 329-94. Austin: University of Texas Press.
- Comrie, Bernard 1978d. "Genitive-accusatives in Slavic: the rules and their motivation." In: Comrie, Bernard (ed.) Classification of grammatical categories. International Review of Slavic Linguistics 3.1-2. 27-42. Edmonton, Alberta: Linguistic Research,
- Comrie, Bernard 1981. "Aspect and voice: some reflections on perfect and passive." In: Tedeschi, Philip J. & Zaenen, Annie (eds.) Tense and aspect. Syntax and Semantics 14, 65-78. New York: Academic Press.
- Carroll, J.B. 1968, "Contrastive Linguistics and Interference Theory." In: Alatis, ed. pp. 113-122.
- Catford, J.C. 1963. "Linguistic Aspects of Second Language Learning," The Times Educational Supplement, June 7, p. 1248.
- Catford J.C. 1965. A Linguistic Theory of translation. London: Oxford university press.
- Chomsky, N. 1957. Syntactic Structures. Mouton, The Hague.
- Chomsky, N. 1965, Aspects of the Theory of Syntax, MIT.
- Croft, William. 1983. "Grammatical relations vs. thematic roles as universals." In: A. Chukerman, M. Marks and J. Richardson (ed.) Papers from the nineteenth regional meeting of the Chicago Linguistic Society, 76-94. Chicago: University of Chicago Linguistics Department.
- Croft, William. 1990. Typology and Universals. Cambridge, Cambridge University Press.
- Curme, G.O. 1931. A Grammar of the English Language, vol. III: Syntax, D.C. Heath and Company, Boston, pp. 11-15.
- Dakshinamoorthy. 1983. Contrastive analysis of complementation in English and Tamil. PhD Thesis, Annamalai University, Annamalai Nagar.

Derbyshire, Desmond C. 1977. "Word order universals and the existence of OVS languages," *Linguistic Inquiry* 8, 590-9.

Di Pietro, r.j. 1976. *Language Structures in Contrast*. Newbury House Publishers, Massachusetts.

Downing, B.T. 1978. "Some Universals of Relative Clause Structure". In: J.H. Greenberg, ed., *Universals of Human Language* vol. 4, Syntax. Stanford University Press, Stanford.

Downing, Bruce T. 1978. "Some universals of relative clause structure." In: Joseph H. Greenberg, Charles A. Ferguson and Edith A. Moravcsik, (ed.) *Universals of human language*, vol. IV: Syntax, 375-418. Stanford: Stanford University Press.

Ferguson, C.A. 1968. "Contrastive Analysis and Language Development." In: Alatis, (ed.) pp. 101-112.

Fisiak, J. (ed.) 1981. *Contrastive Linguistics and the Language Teacher*. Oxford: Pergamon Press.

Gamkrelidze, Thomas V. 1978. On the correlation of stops and fricatives in a phonological system. In: *Universals of human language*, vol. II: Phonology, ed. Joseph H. Greenberg, Charles A. Ferguson and Edith A. Moravcsik, 9-46. Stanford: Stanford University Press.

Givon, Talmy 1975a. "Promotion, accessibility and case-marking: toward understanding grammars," *Working Papers on Language Universals* 19, 55-125.

Givon, Talmy 1975b. "Serial verbs and syntactic change: Niger-Congo." In: Charles Li. (ed.) *Word order and word order change*, 47-112. Austin: University of Texas Press.

Givon, Talmy 1976: Topic, pronoun, and grammatical agreement. In: Li (1976) 149-88.

Greenberg, Joseph H. 1954. "A quantitative approach to the morphological typology of language." In: R. F. Spencer, (ed.) *Method and perspective in anthropology*, 192-220. (Reprinted in *International Journal of American Linguistics* 26:178-94, 1960.)

Greenberg, Joseph H. 1960: "A quantitative approach to the morphological typology of language," *International Journal of American Linguistics* 26, 178-94.

Greenberg, Joseph H. 1963, "Some Universals of grammar with particular reference to the order of meaningful elements." In: J. Greenberg, (ed.). *Universals of Language*. MIT Press, Cambridge, Mass.

Greenberg, Joseph H. 1966a. Some universals of grammar with particular reference to the order of meaningful elements. In: *Universals of grammar*, ed. Joseph H. Greenberg (2nd edition), 73-113. Cambridge, Mass: MIT Press.

Greenberg, Joseph H. 1966b. *Language universals, with special reference to feature hierarchies*. *Janua Linguarum, Series Minor* 59. The Hague: Mouton.

- Greenberg, Joseph H. 1966c: Some universals of grammar with particular reference to the order of meaningful elements. In: Greenberg (1966c) 73-113.
- Greenberg, Joseph H. 1966d: Universals of language, second edition. Cambridge, Mass: MIT Press.
- Greenberg, Joseph H. 1974: Language typology: a historical and analytic overview. Janua Linguarum, Series Minor 184. The Hague: Mouton.
- Greenberg, Joseph H. Ferguson, Charles A., & Moravcsik, Edith A., editors 1978: Universals of human language, 4 volumes: I, Method and theory, 2, phonology 3, Word structure 4, Syntax. Stanford, Calif.: Stanford University Press.
- Hale, Kenneth 1976. "The adjoined relative clause in Australia". In: Dixon, R. M. W. (ed.) Grammatical categories in Australian languages. Linguistic Series 22, 78-105, Canberra: Australian Institute of Aboriginal Studies.
- Hale, Kenneth 1983. "Warlpiri and the grammar of nonconfigurational languages." Natural Language and Linguistic Theory 1:5-47.
- Hawkins, John A. 1979. "Implicational universals as predictors of word order change," Language 55, 618-48.
- Hawkins, John A. 1980. "On implicational and distributional universals of word order," Journal of Linguistics 16:193-235.
- Halliday, M. A.K. and Hasan, R. 1916. Cohesion in English. London: Longman.
- Jacobsen, B. 1986. Modern Transformational Grammar. North Holland, New York.
- Jakobovits, L.A. 1969. "Second language Learning and transfer theory: A theoretical assessment", Language Learning 19, Ann Arbor, Michigan,
- Jakobovits, L.A. 1970. Foreign language learning: A Psycholinguistic analysis of the issues. Rowley, Mass.
- Jespersen, Otto 1909-49. A modern English grammar on historical principles, vol. I – VII. London: Allen and Unwin.
- Jespersen, O. 1927. Reprinted in 1961 and 1965, A Modern English Grammar, on Historical Principles – Part III Syntax (Second vol,) George Allen and Unwin Ltd., London.
- Joseph, C. B. 1984. A Contrastive Analysis of English and Tamil to Teach English as a Foreign Language. University College of Wales.
- Keenan, Edward 1979. Passive is phrasal, not sentential or lexical. In *Lexical grammar*, ed. T. Hoekstra, H. Hulst and M. Moortgat. 181-215. Dordrecht: Foris.

- Keenan, E.L. and B. Comrie 1972, "Noun Phrase Accessibility and Universal Grammar," Winter Meeting, Linguistic Society of America.
- Keenan, Edward and Bernard Comrie. 1977. "Noun phrase accessibility and universal grammar," *Linguistic Inquiry* 8:63-99.
- Kothandaraman, P. 1969. A Contrastive Analysis of Tamil and Telugu. Annamalai University Phd dissertation, Annamalai University.
- Kothandaraman, R. 1977. "*Cettup po:na cettu* (Tamil)," *Moli-y-iyal*, Vol. 1, No.1 and 2, Annamalai University, Annamalai Nagar.
- Kothandaraman, R. 1978. "Japanese, A Characteristic OV Language." In: Lehmann (ed.).
- Kothandaraman, R. 1990a. "Complers in Tamil Syntax," *Tamil Syntax, New Perspectives*, Pondicherry Institute of Linguistics and Culture, Pondicherry.
- Kothandaraman, R. 1990b. "Relative Clause and Participial Noun in Tamil – A New perspective," *Tamil Syntax, New Perspectives*. Pondicherry Institute of Linguistics and Culture, Pondicherry.
- Kothandaraman, R. 1990c. "Unmarked Matrix System in Tamil Syntax," *Tamil Syntax, New Perspectives*. Pondicherry Institute of Linguistics and Culture, Pondicherry.
- Kothandaraman, R. 1990d. "Correlative Relatives in Indian Syntax – A Note," *Tamil Syntax, New Perspectives*. Pondicherry Institute of Linguistics and Culture, Pondicherry.
- Kothandaraman, R. 1990e. "Adverbial Complements in Tamil," *Tamil Syntax, New Perspectives*. Pondicherry Institute of Linguistics and Culture, Pondicherry.
- Kothandaraman, R. 1990f. "Post-Predicate Expletives in Tamil," *Tamil Syntax, New Perspectives*. Pondicherry Institute of Linguistics and Culture, Pondicherry.
- Kuno, Susumu 1972. *The structure of the Japanese language*. Cambridge, Mass.: M.I.T. Press.
- Kuno, Susumu. 1976a. "Subject Raising," In: Shibatani, M (ed.). *The grammar of causative constructions, syntax and semantics* 6. Academic press, New York.
- Kuno, Susumu. 1976b. "Subject, theme, and the speaker's empathy – a reexamination of relativization phenomena." In: C.N. Li. (ed.) *Subject and topic*, pp. 417-444. Academic Press, New York,
- Lakshmi, Swarajya V. and Mukherjee Aditi. 1996. *Word Order in Indian Languages*. Hyderabad, Hyderabad Booklinks Corporation.
- Larkin, Don, 1972. *Enru and Enpatu as Complement Markers in Tamil*, In *Agesthalingom and Shanmugam* (Eds.).

- Lehmann, Christian 1981. Thoughts on grammaticalization: a programmatic sketch, Vol. I. (Arbeiten des Kolner Universalien-Projekts, 48.) Cologne: Institut fur Sprachwissenschaft.
- Lehmann, Winfred P. 1973. "A structural principle of language and its implications." *Language* 49, 47-66.
- Lehmann, Winfred P. 1974. Proto-Into-Eurpoean syntax. Austin: University of Texas Press.
- Lehmann, Winfred P. 1978a. Conclusion: toward an understanding of the profound unity underlying languges. In Lehmann (1978b) 395-432.
- Lehmann, Winfred P. 1978b: Syntactic typology: studies in the phenomenology of language. Austin: University of Taxes Press.
- Mallinson, Graham and Barry Blake 1981. *Language typology*. Amsterdam: North-Holland.
- Masica, Colin. 1972. "Relative Clause in South Asia." In: paul M. Peranteau et al. (Eds.).
- Masica, 1984. "Relative Clause and Participial Noun in Tamil: A New Perspective," *IJDL*, Vol. XIII:1, DLA, Trivandrum.
- Maxwell, D.N. 1979, "Strategies of Relativization and NP Accessibility," *Language*, vol. 55.
- Mithun, Marianne 1984. "The evolution of noun incorporaton." *Language* 60:847-94.
- Nadkarni, M.V. 1970, NP-embedded structures in Kannada and Konkani. Phd dissertation, University of California.
- New Mark, Peter. 1981. *Approaches to Translation*. Oxford; Pergamon press.
- Nickel, G. (ed.) 1971. *Papers in Contrastive Linguistics*. Cambridge, London.
- Pavananti. 1300 A.D.. *Nannuul viruttiyurai, kazhagam*, 1961, Madras.
- Peranteau, P.M. J.N. Levi and G.C. Phares (ed.) 1972. *The Chicago which Hunt*. Chicago Linguistic Society, Chicago.
- Pullum, Geoffrey 1977. "Word order universals and grammatical relations." In: *Grammatical relations (Syntax and Semantics, 8)* ed. Peter Cole and Jerrold Sadock, 249-77. New York: Academic Press.
- Ramasamy, K. 1981. "Correlative Relative Clauses in Tamil." In: Agesthialingom, S. and N. Rajasekharan Nair (eds.).
- Ramasamy, K. 1988. *A Contrastive Analysis of the Relative clauses in Tamil and English*. Phd Thesis, Annamalai University.
- Rangan, K. 1972. *Constrastive analysis of the grammatical structures of Tamil and English*. Unpublished PhD thesis. University of Delhi.

- Renugadevi. 1997. Grammatical comparison of English and Tamil: a typological study. Madurai: Devi Publications.
- Schachter, J. 1974, "An Error is error analysis," *Language learning* 24, pp. 205-214.
- Schwartz, Linda 1980. Syntactic markedness and frequency of occurrence. In: Thomas Perry, (ed.) *Evidence and argumentation in linguistics*, 315-33. Berlin: Walter de Gruyter.
- Sivakumar, S. 1981. The Become Family in Tamil. Unpublished report submitted to International School of Dravidian Linguistics, Trivandrum.
- Sivakumar, S. 1981. "Noun Complementation in Tamil." In: Aghosthalingom and Rajasekharan Nair (eds.).
- Sivakumar, S. 1982. "Verbal Bases as a sub-class of Noun," *IJDL*, Vol. XI, No. 2, DLA, Trivandrum.
- Sivakumar, S. 1980. Complementation in Tamil. Phd dissertation, Annamalai University.
- Sivakumar, S. 1985. "*Tamil-t-totaran-il Ulvinaikal*", *Mili-y-iyal*, Vols. 9:1 & 2 and 9:3 & 4, Annamalai University, Annamalai Nagar.
- Smith, Neil 1982. Review of Comire 1981. *Australian Journal of Linguistics* 2:255-61.
- Steele, Susan 1975. On some facts that affect and effect word order. In: Charles Li (ed.) *Word order and word order change*, 197-268. Austin: University of Texas Press.
- Steele, Susan. 1978. "Word order variation: a typological study." In: *Universals of human language*, vol IV: Syntax, ed. Joseph H. Greenberg, Charles A. Ferguson and Edith A. Moravcsik, 585-624. Stanford: Stanford University Press.
- Thiagarajan, 1981. Model system of English and Tamil. PhD thesis. Annamalai University.
- Tomlin, Russell 1986. *Basic word order: Functional principles*. London: Croom Helm.
- Stockwell, R.P. and J. Bowen 1965a, *The sounds of English and Spanish*, The University Chicago Press, Chicago.
- Vennemann, Theo. 1972. Analogy in generative grammar, the origin of word order. In: Heilmann, Luigi, (ed.). *Proceedings of the Eleventh International Congress of Linguists*, 2 volumes (Bologna: Il Mulino) 2, 79-83.
- Vennemann, Theo 1973. "Explanation in syntax." In: John Kimball (ed.) *Syntax and semantics*, vol. II New York: Academic Press.
- Vennemann, Theo. 1974. "Topics, subjects, and word order: from SXV to SVX via TVX." In: Anderson, John M. & Jones, Charles (eds.). *Historical linguistics*. North-Holland Linguistic Series 12 (Amsterdam: North-Holland) 339-76.

Whitman, R.L. and K.L. Jackson 1972, "The unpredictability of contrastive analysis," *Language learning* 22. pp. 29-41.

Williams. 1973. A contrastive Analysis of Tamil and English. PhD Thesis. Annamalai University.

Wilss, Wolfram, 1982. *The science of Translation: Problems and Methods*. Gunter Narrverlag Tübingen.