

THE PROBLEM OF ANAPHORIC REFERENCE :  
A STUDY WITH REFERENCE TO MARATHI

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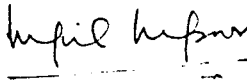
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C E R T I F I C A T E

Certified that the dissertation entitled - "THE PROBLEM OF ANAPHORIC REFERENCE. A STUDY WITH REFERENCE TO MARATHI" by Seema Khanwalkar, for the partial fulfilment of the degree of Master of Philosophy has not been previously submitted for any other degree of this or any other university. We recommend this dissertation to be placed before the examiners for evaluation.

  
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FOR  
NANA MAMA

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## Introduction

It is a general property of natural languages to possess devices that refer to entities mentioned elsewhere in the sentence or discourse. One such device identified since the Greek and Latin grammars is the 'anaphora', On the face of it the, anaphora is a very simple and straightforward phenomenon which is primarily used to avoid redundancy and repetition of an earlier mentioned element. However, till today it is yet to attain a desired unity in its definition. It has been defined distinctly, in each phase.

In the Pre-Generative phase it was restricted to a grammatical class of pronouns, whose function was to avoid the repetition of a noun. In the Generative Grammar, anaphora continued to be represented by the class of pronouns, but was now defined as a 'Transformation' keeping in tune with 'Movement' approach of the Generative grammarians. A pronoun, was, thus a result of a movement or a transformation of an element from deep structure to surface structure in a sentence. The replacement by a pronoun was called a transformation of pronominalization or in the case of a reflexive, a reflexive transformation.

Within the same approach, under a revised version, the GB theory, anaphora was given a semantic interpretation. It was dealt with in more detail in the 'Binding theory'. The anaphors were identified as the reflexives and the reciprocals as against the other NP-types and they were

semantically interpreted at the S-structure. Anaphora was a dependent element in an antecedent-anaphor relationship which has to locate its antecedent within a given sentence boundary.

With the identification of the anaphoric properties in a discourse, the definition of anaphora in the Generative phase seemed limited. In the discourse, it had a wider field of reference (Cornish 1986). It refers to a relationship between an element A and an element B, where, the former is necessarily linguistic, but the latter can be either linguistic or extra-linguistic. Basically, in a discourse, the anaphor cannot be said to have fixed reference like in the sentence grammar.

A device such as this is subject to constraints on interpretation, noticed in the varying definitions of anaphora, discussed earlier. In modern linguistic theory, the controversy between syntax and semantics comes into play in the interpretation of anaphora. And linguists differ - in the interpretation of anaphora as being either semantic or syntactic.

Our limited purpose in this work, is to describe how the anaphora has been treated in linguistic theory. While describing how the anaphoric reference is handled in successive linguistic theories, we will also explicate the anaphoric constructs involved in accounting for anaphoric reference. This is particularly relevant to GB in which the constructs are quite complex.

The treatment of anaphora has been described in three phases - In the Pre-Generative theory, the early Generative theory, the Government and Binding framework and in the discourse theory. The chapterization of the description is as follows:-

In the first chapter, we first describe the Pre-Generative treatment of the pronouns, based on the Latin and Greek grammars. The purpose of this chapter is to highlight the inadequacy of these grammars. We have relied on Jespersen's critique on the traditional grammars for an adequate description of the treatment of the pronouns in this phase.

In the same chapter, we will also show the shift in the perspective of the linguistic theories upto the Generative grammar in order to highlight the change in the treatment of the pronouns.

The second chapter is exclusively a description of the Binding theory and the treatment of anaphora as against the other NP-types within the principles of the theory. The Binding principles have been applied to an Indo-Aryan language, Marathi and the shortcomings of the theory have been elaborated on the basis of previous analysis in Marathi by linguists like Kashi Wali (1979, 1989), and Dalrymple(1986). The description of the Marathi Grammar is based on Damle's description of the grammar in 'Marathi Grammar' (1970). The shortcomings of the theory have also been described with illustrations from other languages like



the Japanese, Korean, Chinese Kannada etc. The alternatives proposed to overcome these shortcomings have been briefed.

As a point of departure from the Generative theory we have also taken up a brief account of anaphora in discourse mainly to highlight its wider functional abilities, so far limited to a sentence. We have based our analysis on Leech and Short(1981 ) Cornish (1986) Werth (1984).

We have concluded the description with a few proposals as alternatives to the treatment to the anaphors by various linguists and have reviewed the status of anaphora in the various theories analysed so far and how it stands today.

## CHAPTER I

### Pre-Generative Phase

In this chapter we broadly review the grammatical theory from the Pre-Generative phase to the Government - Binding theory (1981), closing with a marginal statement about GB revision in 'Barriers' (1986). In the Pre-Generative phase, we base our account principally on Jespersen and keep our focus on the definition and nature of pronouns. In the Generative phase also we highlight the treatment of pronouns and Reflexives, because our principle interest is in the treatment of pronouns in the GB framework which we examine and review at length in Chapter II. In this chapter we restrict ourselves to drawing outlines of the theory. Only in the context of semantic interpretation in this framework, we mention the assignation of all antecedents to anaphoric relations and their coreference relations.

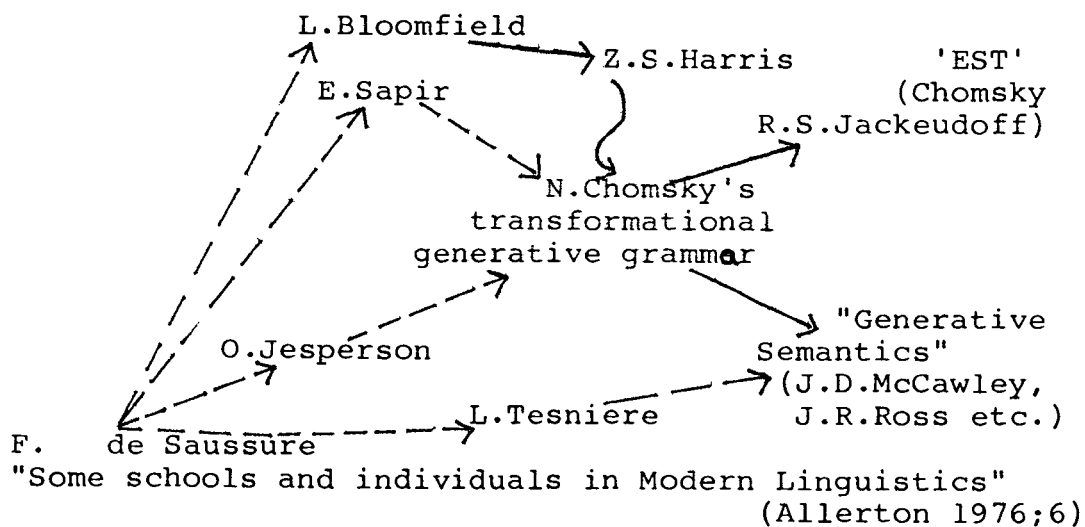
#### Traditional Grammar

The traditional grammar is an appropriate starting point as its treatment of pronouns and anaphors forms the backdrop of modern theories. We have based our description on Jespersen's account and criticism of the various grammars in the traditional phase. The justification for the above, is that Jespersen's work particularly his 'Philosophy of

Grammar' (1935) is the single best source of Traditional Grammar. Moreover his critique and his alternatives to the shortcomings of the traditional grammar had a direct influence on modern linguistic theory. "His notions are valid today and are implicit in much transformation-generative grammar"(Allerton 1976;6). Also significant to our present work is the fact that Jespersen anticipates Chomsky as to what a theory of language should be<sup>1</sup>, and in dealing with the question of 'Universal Grammar' as a possible explanation for the existing languages in the world.

In his review of grammatical theory till then, Jespersen criticizes most of the grammars produced after the classical Greek and Latin works as being inadequate and not having a general approach to base these distinctions (Jespersen 1935;58).

1. Allerton drawg the following diagram of influences -



We have reproduced only the relevant portions of the diagram.

He finds most of these grammars as being language particular. In the basis of this, Jespersen raises a question which he feels is extremely important and should be kept in mind by all grammarians - Are these categories particular or are they universal? In other words are they logical categories or are they merely linguistic categories? Because if they are logical, then they have a much wider and universal application. The questions lead to the larger age old question posed by Jespersen - can there be any such thing as a universal(or general) grammar?.

We now present the answers to these questions as formulated in the classical western theory, and as worked out by Jespersen. The attitude to this question has varied with the ages and with the theories and approaches particular to the age. When grammar was considered applied logic (cf. Port Royal Tradition), philosophical grammar, it sought to capture the general principles underlying the existing languages. The major flaw in this approach was an irresistible dependence on Latin, and grammarians even considered Latin as a 'perfect model' of logical consistency, and their goal was to mark distinctions in other languages when compared to Latin. The outcome of such an approach can best be summed up by quoting Sayce (cf., 'Grammar' Encyclopedia Britannica): 'The Endeavour to find the distinctions of Latin Grammar in that of English has only resulted in grotesque errors and a total misapprehension of

the usage of the English language'. Later, in the 19th century, with the rise of the interest in historical and comparative linguistics, the philosophical goals of grammars were done away with, for now the inductive methodology suggested the possibility of working out particular features of particular languages later to be worked into a general framework on the basis of the comparative studies.

The area of this possibility was Syntax, as it was Syntax, where it appeared that something in common to all human languages could be located and which could reflect the structure of human thought.

#### Treatment of Pronouns

In these early phases, the study of Syntax meant study of the nature and behaviour of parts of speech. Jespersen voiced the dissatisfaction of many who felt that the traditional parts of speech classification were not really valid. For example, he starts with Varro's distinctions.

Varro distinguished four parts of Speech: one which has cases, (nouns, nominals), one which has tenses (verbs), one which has both cases and tenses (Participles) and one which has neither. A scheme, abandoned because it was manifestly made to fit Latin (and Greek) only and that it is not suitable either to modern languages evolved out of a linguistic structure, similar to Latin such as English, or

to a language of a totally different type, as for example, the Eskimo. (Jespersen 1935;58). Pronouns in this classification are subsumed under nominals. Then Jespersen recounts Schoroeder's system(1974). Schoroeder's system is based on the parameters of gender and tense.

Nouns	}	ORDINARY	-	With gender without tense
		PERSONAL		
		PRONOUNS	-	With gender without tense
		PARTICIPLES-		Without gender, with tense
		Verbs	-	Without gender, with tense

This system would, again apply only to the ancient languages of the European family. Tense is the distinctive feature of verbs. But then, Jespersen asks, what about Chinese, which has no verbs? The definition of pronouns is again too restricted and would not apply ot English even. Next he treats J.Hall and Sonnenschien's Grammar (1902). They define noun and pronoun thus,

'Noun's name, Pronouns identity without naming.' However,

1.a Who killed Robin?'

'Robinlaa kuphi maarla?'

In these sentences, who does who identify or indicate?

b 'There was none left for the party.'

'Partikarta, kahipan urle navhta.'

Whose identity is established by the pronouns 'none' and 'kahipan'?

The pronouns were always recognised as one of the major word classes. One definition of the pronoun is : 'the pronoun stands instead of a name or thing. This is expanded by Sweet as reported by Jespersen, into a pronoun is a substitute for a noun and is used partly for the sake of brevity, partly to avoid the repetition of a noun and partly to avoid the necessity of a definite statement.

Jespersen disagrees with the definition and proves its inapplicability in cases like -

2.a 'Ram Sitalaa baghto'

Ram Sita sees.

(Ram sees Sita)

replaced by

b 'mi tula baghto'

I you see.

(I see you).

Where 'I' and 'You' in 2.b, 'mi' and 'tula', do not replace, 'Ram' and Sita of 2.a.

In another example:

3.a 'mi chowgule hya desaca satkar karayla alo ahe',

I Chowgule this country's welfare to do have come.

(I Chowgule have come for the welfare of this country).

The pronoun 'mi' does not replace Chowgule. Moreover 'mi' is in the 1st person and the name in the 3rd person.

4.a What about nouns like 'nobody', 'Kunhinahi' and 'who', 'kon'? What do they substitute?

Jespersen puts pronouns in a large class of substitute words which can be subdivided into pro-nouns, pro-adjectives, pro-adverbs, pro-verbs, and pro-sentences as 'so', but it can hardly be called a grammatical class.

5. he, she, it, they used instead of a substantive.  
to, ti, te

Consider for example:

a 'to' - 'zo manus swarthi asto, to narakat zato'.

who man selfish is, he hell-to goes.

The man who is selfish goes to hell.

b 'ti' - 'ji mulgi shalet zate, ti, hushar aste.'

the girl school goes, she intelligent is.

(The school going girl is intelligent.)

c 'te' - Ram ani Shyam, mu:rkha wattat, pan te khara,

hushar ahet.

(Ram and Shyam seem idiots, but actually they are intelligent).

d that, those: 'his house is bigger than that of his neighbour's.

'tyaca peksha, he ghar jasti tchangla ahe.'



(more than that one this house is nicer).

e one, ones: 'a red apple and two green ones.'

f so: 'Is he sick? I believe so.'

'to aazari ahe ka? asa, vatta.'

where 'so' stands for the entire sentences.

Noreen's (vs5.63ff) classification of pronouns, according to Jespersen, was the most original and instructive (Jespersen 1935;P.36). The basic idea behind this classification was, the inclusion of many more words and groups of words as pronouns rather than restricting the class to a few as the earlier grammarians had done. He based his classification on the "semological" point of view.<sup>2</sup> And Jespersen criticizes this as disregarding the actual expression of meaning. i.e. without any consideration of formal elements.

Noreen takes into consideration the circumstances found outside of the linguistic expression, and determined by the whole of the situation, which essentially contrasted with the 'expressive sememes", whose expression is fixed and contained in the linguistic expression itself. The signification of a pronoun is then, a variable.

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2. Jespersen (1935;36) - Semology Jespersen explains is a rather distorted version of the original Greek form - Sema, Sematos which means 'sign and not 'signification' as Noreen has interpreted it.

The class of pronouns included in this were -

- 7.a "There were three boys, THE BIGGEST ONE ...."  
"tin mula hoti, sarvat 'motha' ...."
- b 'here', a pronominal adverb in place of 1st person  
"Where will the shooting take place? HERE"
- c "karyekram kuthe hoyil? 'ithe'  
Programme where will be? here  
(Where will the programme be held? here).
- d 'There'- the corresponding adverb for the second and third persons.

The problem with Noreen's class, Jespersen observes, is that though it appears very heterogeneous, yet it does not provide an explanation for the inclusion of so many disparate words into his class, for example, the interrogatives like 'who' 'what' and indefinite words like 'some' and 'nothing'. How does one define them as pronouns? On the other hand within the same definitive boundaries it excludes combinations like 'here and there', 'now and then', and 'occasionally', which also have a (backward) reference to some other items inside or outside the utterance.

#### Pronoun and Person

The category of person interacts with pronouns, particularly the declension of personal pronouns. The use of the word 'person' goes back to Latin grammarians and through

them to Greek (prosopon). The definition of person in grammar in NED is - "Each of the three classes of personal pronouns, and corresponding distinctions in verbs, denoting or indicating respectively the person speaking (first person), the person spoken to (second person) and the person or thing spoken of (third person)". Jespersen, however, differs slightly in defining the 'third person' by the real contrast as between (1) the speaker (2) spoken to and (3) neither speaker nor spoken to. In the first person one speaks of oneself, in the second of the person to whom the speech is addressed and in the third, neither.

The definition of the 'person' is one of the many inconveniences of the traditional grammar. It does seem strange, as Jespersen observes, to that 'impersonal verbs' are always put in the third person.

8.a "paus paḍto"

"It rains"

The inclusion of 'it' among personal pronouns seems justified in a way if the impersonal effect is taken into consideration. But when it comes to the interrogatives 'who' and 'what', the former refers to a person, but the latter to anything, but not a person. Is 'who', then, a personal pronoun?.

Thus, according to the definition of the person stated earlier the 1st person, is strictly found in the singular, and the so-called 1st person plural, is actually 'we' - I + someone else. Thus 'we' according to others, is first plus the second or third persons respectively.

Jespersen's observation that in many languages the distinction between all three persons is found not only in pronouns but in verbs as well, applies to Indian languages too - like in Marathi.

- 9.a mi gele - I went  
to gela - He went  
ami gelo - We went  
b mi zate - I go  
tu zato - You go  
te zatat - They go

Depending on the use, pronouns, by virtue of the person have particular reference. Servility, deference or simply politeness may make the speaker avoid the direct mention of his own personality and thus we have substitutes like -

"Your humble servant"

"aapla naukar"

Which is a third person substitute for 'I'. In written forms, 'I' is often substituted by saying, the 'author' or 'the writer' etc -

"lekhak" in marathi. This is second order substitution - the pronoun for the noun is the first; and one pronoun for the other is the second. This then is doubly shifted reference.

#### Reflexive and Reciprocal Pronouns

Many languages have developed reflexive pronouns. Their function, according to Jespersen, is to indicate identity with what has been mentioned before in most cases with the subject

Ramni swataahlaa maarla

(Ram ERG himself hit)

(Ram hit himself)

Where 'swataah' refers to the subject NP

Originally the reflexive pronoun was used for all three persons and without any regard to number, e.g. in Sanskrit and its derived language like Marathi, where the two reflexives, aapaṅ and swataah, are called 'sarvapurushavacak' which in Sanskrit means, expressive of all three persons. This is found in the oldest Greek too. The application of 'swataah' and 'aapan' is not everywhere the same: 'aapaṅ' does not have a fixed reference. aapan has varied uses as a 1st person plural, as a 2nd person singular (honorific) and as an inclusive 'we'. (c.f. chap.II p; 64 )

English very early went further than any of the related languages, in having separate reflexives according to person

and number. Earlier, English had -

"I wash me,  
thou wastest thee,  
he washes him",

Now the reflexive meaning is expressively indicated by the combinations with self:

"I defend myself",  
"you defend yourself", etc.

Thus the English reflexive pronouns differ from the original Aryan ones in distinguishing between the three persons and the two numbers (Jespersen 1935, p.222).

Reciprocals such as "each other" are closely related to the reflexive pronouns in meaning. 'Each other' means each part of those mentioned as the subject acted upon (or with regard to) and being in turn acted upon by all the other parts. This meaning, often expressed by the simple reflexive pronoun was used either alone as in the French form 'se' or in combination with other forms like-

'l'un l'autre'

In various languages they are not used with a reflexive. In English, the earlier separated elements have been fused together to give - 'gaze on each other', 'speak to each other' etc. In the Aryan language, Marathi, the form is "eka-mekala":

tyanni 'eka-mekala' maarla (They hit each other).

## Common Sex in Pronouns

Jesperson expresses the desire to have a common sex in speaking of living beings to have words which say nothing about sex and are equally applicable to male and female beings. Marathi reflexives meet his demand. In the case of pronouns, English seems to have a "sex determination" even in the self forms like himself, herself but in the Aryan language Marathi the self-forms, 'swataah' and 'aapan' can be used for any sex. Like -

l0.a mulani 'swataahh' kela - boy did it himself.

mulini 'swataah' kela - girl did it herself.

## The Anaphors

Anaphor - is a term used in grammatical description for a process or result of a linguistic unit referring back to some previously expressed unit or meaning. 'Anaphoric reference' is one way of marking the identity between what is expressed and what has already been expressed. It is a term taken over from traditional grammarians (Crystal 1985, p.17) where it incorporates all pronouns. In modern linguistics, however, the term anaphor is contrasted with the other kinds of pronouns and NP - types. It refers to some other sentence constituent (its antecedent) and thus, has no independent reference. It includes reflexive pronouns and reciprocal pronouns but not personal pronouns. The term thus has a more restricted application than the traditional term 'anaphoric'.

In our account, except for the portion dealing with 'generative theory' anaphora will be used in the traditional wider sense. In the example:

11. (a) Maharani Sahiba azun alya nahit, pan TYA thodya  
ve|at|yetil (The Queen has not arrived as yet, but she will  
arrive soon).

The pronoun 'tya' (she-'honorific') refers to its antecedent 'Maharani Sahiba', and this relationship is called 'anaphora'. 'Tya' is anaphoric to the Empress and hence is an anaphor. Lyons gives an interesting account of the history of the term. According to him traditionally, "anaphora" covered both normal backward looking anaphoric reference. The anaphoric reference is defined as - "where the pronoun refers to its antecedent". The term "refere", Lyons says, goes back to the Latin 'referre' which was used to translate the Greek 'anapherin' and in this context meant something like 'bring back' 'recall' or 'repeat'. Lyons also gives an alternative sense of the term 'refer' which is more prevalent in the current notion of the term-that is the co-reference of anaphor and antecedent (Lyons 1977).



## Generative Grammar

The treatment of pro-forms in the traditional phase, was found to be weak in the explanatory sense, as the referential property of these forms was discovered to be much more powerful than a mere occurrence instead of a noun. It was found to be an important linking device between sentence units and across them. Thus, not only their structural description, but their semantic interpretation was of equal importance. However, meaning was subordinated to formal syntax in the structuralist and early generative phase. Linguistics founded itself on the doctrine of 'Empiricism' which spoke of linguistics as a science and 'experience' as the sole benefactor of all non-analytic knowledge. Inductive generalisation and observation were needed for all learning. Linguistic description became a catalogue of observables and statements, in principle extractable directly from observables by a set of mechanical procedures. The goal was, to 'discover' a grammar by performing a set of operations on a corpus of data the impossible goal as Lees points out of both defining a 'representative' corpus and of finding a complete grammar therefrom. (Lees 1957). The structuralist methodology shared Saussure's taxonomic goals - the classification of elements. Grammar was constructed through successive

segmentations and classifications. Relatively little work was done on syntax during that period. Initially, the emphasis lay on the classification of individual morphemes into syntactic categories and later, on the syntactic relations between sentences. (Newmeyer 1980). Meaning, thus was outside the domain of grammar. Infact there was a demand to adopt 'meaning-independent' procedures. In such frame work, interpretation; including interpretation of pronominal reference, could not be the concern of grammar.

This was the background of generative grammar. In 1957, "one of the first serious attempts on the part of a linguist to construct a comprehensive theory of language which may be understood in the same sense that a chemical, biological theory is ordinarily understood by experts in those fields", (Lees 1957: 377) was made by Chomsky in his Syntactic Structures. He characterised grammar simply as a "theory of language" and rejected the view held by the empiricists that it is a mechanically constructable abbreviation of corpus. In short, grammar was to be thought of as an axiomated system generating an infinite set of sentences with their associated structural discriptions. Essentially a sentence grammar, it was concerned only with the syntactic generation of an infinite number of sentences.

Gradually the goals came to be redefined as the awareness of language structure and function deepened. The first step in incorporating a semantic component into the framework of a generative grammar was by Jerold Katz and Jerry Fodor's paper 'The structure of a semantic theory' (1963). According to them, semantics takes over the explanation of the speakers ability to produce and understand infinitely many new sentences at the point where the grammar leaves off. The assumption is that the semantic interpretive ability shared by the speakers of a language community is to be reflected by the semantic component of grammar.

By 1963 viz. (Katz & Postal An Integrated Theory of Linguistic Description) the attempts were directed towards putting together the syntactic, phonological and semantic components into one single system of language which showed a relationship between the phonetic exponents of the sentence in a language and their semantic interpretation.

In the 'Standard' model Chomsky's aim was to answer two kinds of questions, those of justification and presentation (Chomsky, 1965). The former, he explains is an attempt to deepen and extend syntactic analysis to the point when it can provide the information concerning subcategorization instead of relegating it to unanalysed semantic intuition.

The question of 'presentation' was an attempt to limit the freedom of specifying any kind of context for the substitution term associated with lexical terms. At the same time, the theory was allowed to capture certain generalizations about the deep structure distribution of the lexical term. These generalization rules were captured with the help of subcategorization rules and selectional restriction rules. Grammar assigns semantic interpretation to signals, mediated by the recursive rules of the syntactic 'deep' structure.

In his 'Extended Standard Theory' (1971), Chomsky presented a new link between surface structure and semantic rules. This was needed to interpret features like quantifiers, co-reference, some adverbials, and topic-comment which varied according to the application of the transformation. All this is well known to syntactic history. Such elements he felt needed to be interpreted with reference to surface structure as well. He concluded that the deep structure, alone does not contain sufficient information. Hence, the semantic component must have access to the output of the transformational rules and of the phonological component as well (Chomsky 1970).

In the next section, we will look at the treatment of pronouns in generative grammar of interest in this phase is the interpretation of pronouns as an outcome of a movement transformation.

The treatment of Pronouns in Generative Grammar

Generative grammarians have always assumed that pronouns and reflexives are the product of a transformation which substitutes them for a more fully specified noun phrase, under certain conditions. In the early framework of 'Syntactic Structures', this approach was the only way of expressing the relations between pronouns and their coreferents. In sentences like:

12.a <u>mi</u> 'swataah' maarla	I myself hit
<u>tu</u> 'swataah' maarla	You yourself hit
<u>tyani</u> 'swataah' maarla	He himself hit

The reflexives are based upon the identity of reference between subject and object.

If in a sentence like :

mirani miralaa maarla,

mira, in both the usages refers to the same person, then the sentence is ungrammatical. TG accounts for such facts on the basis of the hypothesis on the nature of language that the sentence must be analyzable on at least two different levels, deep and surface structure, which are related with the help of T rules. The deep structure of the sentences given above would be -

- |                           |               |
|---------------------------|---------------|
| 13.a "mi malaa maarla"    | I hit I       |
| b "tu tula maarla"        | You hit you   |
| c "tyani tyalaa maarla"   | He hit him    |
| d "mirani miralaa maarla" | Mira hit Mira |

The theory of language has to account for the intuition that the subject and the object are identical and have the same reference. The theory of grammar must contain a system of notation indicating the identify of reference (Fowler, 1971).



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In the TG, the sameness of reference in the indential phrases, Johnni Johnlaa maarla and mulaani mulalaa maarla, requires reflexivization of the second NP - or 'sameness of reference' is the intepretation generated by the reflexive. In an attempt to build this account into the syntactic component, Chomsky suggested a new approach with the help of lexical features. He designates certain lexical items as 'referential' and assigns to each occurrence of these, a marker, an integer, as a feature (Chomsky, 1965, p.45). Thus, two items with the same integer would be defined as having the same reference. The idea is to allow the syntax to check on the identity of reference. The idea is to allow the syntax to check on the identity of reference. The T rule is formulated as an erasure operation that uses one NP to delete another. Thus, when applied to 'mi malaa maarla', the

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first NP is used to delete the second, giving - 'mi swataahlaa maarla'. The erasure is supposed to leave a residue, in particular, the feature (+ Human) and introduces the new phonetic element 'self'. But by the recoverability condition on deletion, the rule will apply only when the integers assigned to the two items are the same. The semantic component will then interpret two referential items as having the same reference just in case they are strictly identical, particularly, in case they have been assigned the same integer in the deep structure.

Complex theoretical apparatus is needed to account simply for what we know intuitively about the sentences of reflexives : (i) a distinction between deep and surface structure; a notion of referential identity; a notion of linguistic identity; a notion of a rule which may delete an item under identity and thus help effect a mapping from deep to surface structure (Chomsky, 1968, p.12).

By the reflexive transformation which would delete the objects in sentences like :

"mi malaa maarla"

and replace them with the reflexive pronoun in order to identify that with the subject. Then, the ungrammaticality of sentences like :

14.a	*	mi tula swataahlaa maarla	I you yourself hit
		b * tu mala swataahlaa maarla	You I myself hit.

is accounted for. The reflexive transformation accounts for the surface structure distribution in a natural way and reflects the fact that reflexive pronouns always stand in place of an NP which is linguistically identical to some NP in the sentence.

The application of T rules like these is far more complicated than what seems to be. One of the basic assumptions on the application of these rules is that, they relate deep structures to surface structures in some order. The order is an abstract one which like the T rules gives facts about one's knowledge of language. This assumption of the linguistic order is one of the hypotheses about the universals of linguistic form.

The general properties of the pro-forms in TG are as follows:

(a) Deep structure

15. "Ajayni Tyaca karta kam kela"

Ajay-ERG for him work did

(Ajay worked for him)

Where 'tyaca' is introduced in the deep structure.

(b) By a pronoun transformation.

15.b "Ajayni swataah karta kam kela"

Ajay-ERG himself for work did

(Ajay worked for himself)

Where the underlying structure is - "Ajayni Ajaykarta kam kela."



The distinction according to Fowler, gives a distinction between two different 'uses' of pro-forms. On the one hand, it is used to reduce redundancy to avoid repetition and on the other - used in deep structure to refer to a person, thing, or concept which is given by the context and does not need to be fully specified (Chomsky 1971:104), like the pro-form 'aaplyalaa' in a sentence like -

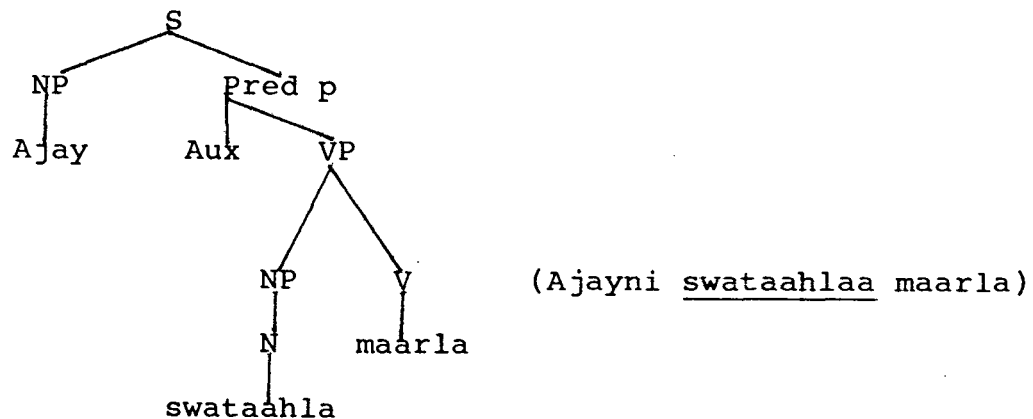
15.c "He ghar 'aaplyalaa' shobhel"

This house us will suit

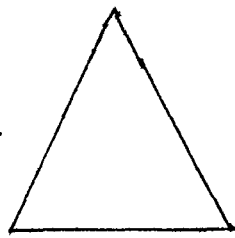
(This house will suit us)

Further, besides conference as a condition for reflexivization, Chomsky talks of the 'dominating S', according to which reflexivization occurs only when the antecedent N and the anaphor N are dominated by the same S.

S

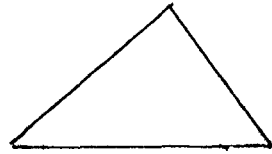


as against -



(mina said)

mina mhanali NP

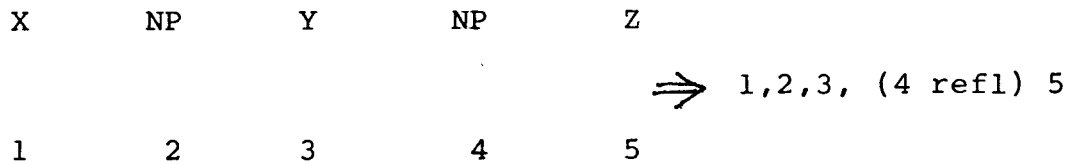


Mina kaam karun deyl

(mina will do the work)

where, reflexivization cannot take place and second NP will be replaced by the pronoun 'ti' (she)

The standard transformational account of the reflexives is given by Lees and Klima :



- Conditions - (1) NP' are (referentially and morphologically identical)
- (2) NP' and NP2 are in the same simplex
- S OBLIGATORY (Less and Klima 1963)

A rule like this is said to be effective only for simple reflexive sentences.

Further, rules must apply not only in an abstract order, but with further restrictions. If a sentence S2 is embedded in sentence S1 then according to Fillmore rules frequently had to apply to S2 before they applied to S1 (Fillmore 1963). To arrive at a definition of a transormational cycle, one has to keep in mind the Postal-Katz hypothesis of the deep structure being a single level

and P.S. analysis putting the two together (Postal-Katz 1964), Lakoff defines the T cycle thus : rules apply first to the most deeply embedded sentence, then to the next highest, and so on until all of the S's in the deep structure of a complex sentence have been processed (Lakoff 1968).

### The GB Theory

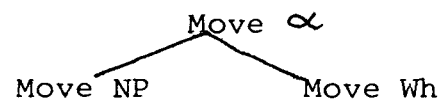
Transformational grammar has been concerned with the logical problem of language acquisition. It is essentially contrasted with the stage by stage acquisition theory. There is an instantaneous quality about the acquisition in the logical theory. The assumption is that despite the enormous variety of linguistic data to which the native speakers are exposed they converge on the same final stage. The theory, however, does not discount the role of the environment, in shaping the language but treats it as a part of the process believing that there must be a substantive body of innate principles that shape the linguistic environment of the child. On the basis of evidence regarding the unanimity of the grammaticality and the ungrammaticality of the sentences among the native speakers, the generativists have, even more firmly come to believe that speakers are equipped with an innate knowledge of language learning (Cook 1988:56 )

The goal of the transformational theories from its early days has been to constrain the class of possible grammars. Unfortunately, though, these early theories of transformational grammar were extremely powerful and generated a very large set of possible grammars. They allowed large inventories of rules. The rule form was also extremely complicated and arbitrary because the context in which a rule applied was exhaustively specified in the structural description of each separately. This had to be done to insure that rules would only apply in their proper domains. The application of the rules, whether optional or obligatory, was a mere stipulation. This model assumed, therefore, that when it came to language acquisition the child was faced with a maze of arbitrary constants and variables in order to arrive at a positive evidence regarding a rule context. This was due to the fact that the conditions on rule formation were not general and hence had to be specified rule by rule. Moreover, the more the possibility of choice, the more likelihood of a wrong hypothesis open to the child.

Since the "Aspects" model the effort has been directed towards the elimination of redundant complexities of transformational grammar. Thus it was suggested that there was no need for quantifational terms to write transformational rules (Chomsky 1965). He also did away with the Boolean conditions from transformational rules. The

basic strategy was, to replace the various adhoc stipulations on an individual rule form and function by universal conditions that apply to the entire classes of transformational rules.

Chomsky attempted to reduce the types of rules, too. The idea was to project the shared properties among these rules which seemed dissimilar superficially. The similarity was at a more abstract level. The evolution of the theory thus is from particular to general, from many to one : from a series of particular transformational rules, to a single, highly general rule - 'Move anything' and then restrict its operation. He called the general rule, 'Move  $\alpha$  ', a rule that simply takes a complete phrase and moves it anywhere. This rule is subdivided into two main parts -



Move NP took care of the so-called passive and raising transformations of English and move-Wh, the formation, topicalization and clefting. The basic idea being to reduce the complicated contexts, Chomsky suggested a set of universal conditions on the derivational output that could handle the ungrammatical structures. The acquisition process is much more simple accordingly, as the child does not have any individual rules to acquire; instead the basic rule, Move  $\alpha$  is given (Chomsky 1977a).

Most recent work has a very different orientation. Newmeyer observe that the view of what a syntactic representation in science consists of is the same as that of the earlier transformational theories (Newmeyer; 1980 ) As explained account of the anaphoric and other links holding between various positions within the sentence. The difference lies in the questions regarding the outcome of the well-formed or ill-formed structure. The representations are seen as being constructed by very general mechanisms of P.S. These mechanisms are subject to conditions on well-formedness in order to filter out unwanted structures. These conditions apply to the structure at a number of different levels of representations recognized by the theory. These conditions unlike the earlier T rules are not specific to a particular construction, but are formulated in a general way and hence have consequences for different constructions. The principles employed in this theory are universal in the sense that they are not limited to the particular language they are handling. The relation between the anaphoric elements and their antecedents, which are constrained by general conditions is an example of these conditions which function as filters.(Newmeyer, 1988,;).

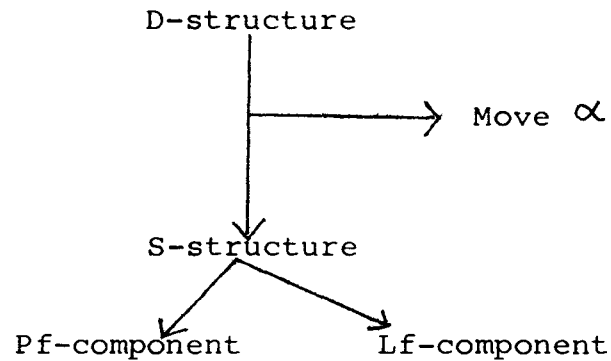
Behind these continuous evaluations in the generative enterprise were Chomsky's (1981) 'Pisa lectures' when, he proposed a powerful hypothesis of a 'Universal Grammar', UG as it is commonly known. This framework was called the "Government and Binding Theory (also called the GB).

### The GB Framework

The classical Chomskyan insight is that language is a relationship of sound and meaning. The two are related by a representational structure, always maintained by Chomsky as the syntax. Syntax, is the mediator between the two. In GB, sound is the phonetic form (PF) and meaning is incorporated into the logical form (LF). They are treated as incidentals to syntax which requires individually distinct components within the grammar. The two perform the age old function of semantic interpretation and giving phonetic form to the utterance. Chomsky defines the status of Lf - "Lf still represents essentially syntactic meanings. By the phrase Lf, I mean, that partial representation of meaning that is determined by the grammatical structure" (Chomsky 1979;165).

An important principle of the GB Theory is that of Movement, the concept of "Movement" since TG and now in GB, essentially involves the original form and the derived form of the sentence. In GB, Chomsky talks of D-structure and

the S-structures which have been given a much more specialised function. The S-structures links the Pf and Lf after having undergone movement from the underlying D-structure. The D-structure expresses the key structural relationships in a sentence.



The surface structure in the TG model was a representation of the transformed deep structure. T. In GB, the S-structure, aids the semantic interpretation. Here, Chomsky introduced the notion of trace (t).

17. (a) Where are we going ?

"aapaṅ kuthe dḥat aahot ?"

We where going are

The wh- phrase has moved out of the direct object position to the subject position in the D-structure leaving a 't' in the S-structure, after the verb.

17. (b) Where are we going t ?

aapaṅ kuthe dḥat t aahot ?





The essential feature of the theory is, that it is a continuous interaction between components and sub-theories embodying different principles and parameters (Cook 1988;28). Thus the D-structure gets the required account of the phrase structure achieved by the sub-theory of X-bar syntax. The head parameter is one of the principles of the X-bar syntax which specifies the locations of heads within phrases in the grammar of each language. It also integrates the lexicon with the syntax and is concerned with the characteristics of the lexical categories, nouns, verbs etc. The properties of these lexical items are reflected in the syntax and the context restrictions by the projection principle which links D structure to S-structure and Lf to the lexicon. Interacting with the X-bar theory and the projection principle,, is the  $\theta$ -theory which assigns  $\theta$  role, or thematic roles to elements. In other words, it deals with the functional relationships between the parts of the sentence. The basic involvement is "who is doing what to whom". The roles express meaning which are directly relevant to the Lf component and indirectly to the semantic component. Each NP has one and only one  $\theta$ -role.

The movement of an item is also restricted by the Bounding theory, which takes care of this aspect with the help of the filter-the subjacency condition. According to the 'subjacency'

No rule can relate x, y in the structure

(.....x.....( $\alpha$ .....( $\beta$ ..... $\gamma$ .....(or ..... $\gamma$ .....) $\beta$ .....).x.)  
Where  $\alpha, \beta$  are bounding nodes

The case theory assigns 'cases' to NP's in a sentence. It is linked to both the D-structure and the S-structure. The case theory developed in GB, is a theory of abstract case not (or not primarily) one of morphological case. Case assignment can take place only when the case-assigner and the NP to which it assign a case bears a structural relation to one another known as government. The case filters act upon the structures and rules out those in which an NP has no case. The case filter has to apply at the S-structure and not later than that. (Reimsdijk and Williams 1986).

It will be useful to take stock of how the overall structure of the model has changed since the mid-1960s. The point of departure is the Aspects Conception of grammar often called the "Standard Theory".

The first two modifications were the introduction of the X theory of phrase structure and the realization that S-structure contributes significantly to semantic interpretation. The stage in the development of the model is know as the EST. It must be noted that for the first time semantics was introduced even if as an interpretive component (Reimsdijk and Williams: 1986).

The  $\bar{X}$  - Theory was introduced in order to elaborate the theory of P.S. rules. The theory required context-free rules of the form  $A \rightarrow BC$ ; the PS-rules were unordered with respect to each other, and applied before the transformations. Now the role of P.S. theory was extended to capture more facts about the structure of phrasal categories. The most important of these is the notion "head of a phrase" - the noun is the head of the NP, the verb is the head of VP, the adjective is the head of Adj. p and the preposition is the head of the PP. The head item remains the most important element all through. Its grammatical categories become the categories of the whole phrase. The "head" shares fundamental properties with the phrasal node containing it. For example 'Children is the head of the NP 'Naughty Children' since it is a plural noun and the whole NP is plural NP.  $\bar{X}$ -bar syntax apart from building on this notion of head, also made a number of generalizations regarding the categories that precede and follow the head of a phrase: That a specifier proceeds and a complement to access the head in all types of phrases.

Chomsky proposed the X convention. The head of any phrase is termed X, the category containing X is termed  $\bar{X}$  and the phrasal category containing  $\bar{X}$  is termed  $\overline{\bar{X}}$  and the  $\bar{X}$  and  $\overline{\bar{X}}$  are known as projections of X. The categories that follows the head have been generalized by saying that the head is followed by its Complements.

$$\overline{X} \quad X \quad \overline{Y} \quad (XY = N, V, A, P)$$

The head X of the  $\overline{X}$  or  $\overline{X}$  of the  $\overline{X}$  is the only obligatory category, the rest-being optional. On the other hand the pre. head categories have been generalized as Specifiers (Chomsky:1970).

$$\overline{X} \quad \text{-----} \quad \text{Specx} \quad \text{x} \quad \overline{X}$$

In the course of evolution of TG theory, meaning become more and more important in the "Aspects" model. The deep structure determines meaning in its representation of grammatical relations such as "subject of" and "object of" to the extent of fixing the semantic roles of NPs in a sentence which are not altered by the transformations. These relations, known as the  $\theta$ -roles (thematic relations) are determined at the D-structure and are projected from the lexicon further exemplify the relationship between syntax and semantics which is crucial for the role of the semantic component, which is supposed to act as a filter on overgeneration by the syntactic component and results in a simplification of the latter. Apart from this the D-structure in the 'standard' theory was also assumed to account for other Semantic roles like the coreference relations between pronouns. This was dismissed later and such roles were accounted for in the S-structure. This was the stage of EST. But soon there was a further modification

as REST (Revised EST) with the introduction of traces. There was, as a result, a whole new concept of S-structure that were enriched in such a way as to preserve many of the properties of D-structure. It was now possible to apply the rules of thematic structure of S-structure, simplifying the Semantic component. (Reimsdijk and Williams 1986:).

In chomsky's 1981 framework, the Semantic component is represented at the level of S-structure with a sub-theory of 'Logical Form' (Lf). 'Meaning' was, however, still in Chomsky's words, essentially syntactic meaning. And the Lf which is "Semantics in the strict sense" is referred to as 'logical syntax'.

The focus on interpretation became greater with every succeeding of grammar. The grammar, however, was essentially Sentence Grammar. This was, in essence, a theory of sentences as objects and not their application in larger frameworks such as discourse. Chomsky justifies his conception of a sentence grammar. The rules of the categorical component and the Lexicon provide initial P-makers. Applying transformations to these, we derive S-structure (including traces) which undergo semantic interpretation. The rules of Semantic interpretation assign the scope of logical operators ("not", "each", "who", etc.) and fix their meaning, assign antecedents to such anaphoric expressions as reciprocals ("each other"), and necessarily

bound anaphora (e.g "his" in 'John lost his way', 'his' must refer to Jhon, as contrasted with the unbounded anaphor 'his' in "John found his book, "where 'His', may refer to any male, including Jhon"). The result of applications of these rules we may call a 'logical form'. (Chomsky 1976).

It would be reasonable to say that the theory of grammar or more precisely "sentence grammar" reaches its limits at this point. The conditions on grammar, the SSC, subjacency and so on apply to the rules of sentence grammar. Sentence grammar involves rules such as NP-Preposing, Wh-movement, scope assignment, assignment of antecedents to bound anaphors and also rules determining thematic relations and other aspects of semantic structure that may be properly assigned to the abstract system of language depending on how the questions raised are answered.

'Grammar', then is actually sentence grammar in this sense. Given logical forms, generated by sentence grammar, further rules may apply. Pronouns not yet assigned antecedents may be taken to refer to entities designated elsewhere in the sentence, though this is never necessary and it not permitted under certain conditions. (Chomsky ; )

A detailed treatment of Binding and the treatment of anaphors and other NP-types will be given in Chapter II.

## Barriers

The brief account of barriers in this section is purely to bring the statement upto date. In proposing the 'Barriers', Chomsky is making a revision on the original concepts as proposed in 'GB'. It is, hence not a new theory. Chomsky seeks to bring the categories of C and I, and S and 'S' in line with the X-bar theory and revise SubJacency. The motivation behind this is to relate SubJacency to other Sub-theories via other concepts like the  $\bar{A}$ -theory.

Why a whole monograph on SubJacency? Newmeyer in his account of 'Barriers' says that in the original development of the idea of SubJacency (Chomsky 1973, 1977, Rizzi 1982a), the crucial nodes (called bounding nodes) for SubJacency in a given language were simply listed once and for all. NP and S were taken to be the bounding nodes in English and any movement which crossed two or more bounding nodes, gave rise to a relation of SubJacency. The SubJacency, was also isolated from other sub-theories (Newmeyer 1988). Some other concepts that are now refined are - BC, L-marking.

In the 'Barriers' framework, the crucial nodes (known as Barriers) are not listed, but defined. The definition of 'barrier' incorporates in a fundamental way the intuition of

Huang (1982) and others, that categories which function as the complement to a lexical category permit movement across their boundaries more freely than do other maximal projections.

Chomsky has introduced new concepts in this theory and it represents a significant departure from earlier work in a number of respects.

#### Blocking Category (BC)

In the example - The man who (pictures of t) are on sale. (Pictures of t), NP is the BC. The subject phrase is not assigned a direct role. Here the VP assigns the role which is not a X level, but a maximal projection. Thus a BC is one which is not L-marked. The subject phrase will always remain a BC BARRIERS. (i) A blocking category in itself, but not when it is S or IP. An IP can be a BC but not a barrier. An NP is both a BC and a barrier.

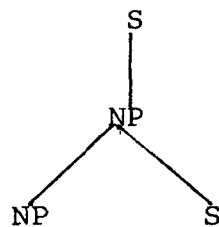
(ii) Barrierhood can be inherited from a BC. Thus IP or S can't be a Barrier in itself but it can inherit from a VP or CP can inherit barrierhood from an IP. The barrierhood is transferred to the next maximal category.

In - \* the man who [ (Pictures of t) are on sale ]

IP NP



the IP can inherit barrierhood from NP. The Wh-phrase, had to cross the NP and IP. Because NP is a barrier, IP dominates the NP and hence is a barrier too. The Wh-Phrase, thus, crosses two barriers and the sentence is ungrammatical. The notion of a barrier is an abstract concept. Given the notion of L-marking, the subject phrase is BC. What is the status of IP? Is L-marked?



the man (Pictures of the man are on sale)

S

here, the man L-marks IP, but can 'man' assign a  $\theta$ -role? The head NP cannot assign a role to the following S. So, how does an IP which is a BC but not a barrier be said to be one? In the example, IP is a barrier due to inheritance. So, two barriers are crossed and the sentence is ungrammatical.

Ex:- { How [ did you (fix the ear) ] t }

CP S VP

the 'how' is outside the VP. While moving from the 'it' to the CP, it has crossed an S. S is a BC and a barrier and the 'it' has crossed one barrier. The sentence is grammatical

because the IP in itself is not a barrier and hence the sentence is grammatical - An NP will always. IP and CP are not barriers intrinsically.

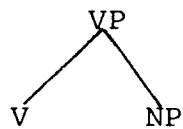
- The inheritance takes place, when, if A dominates B and if B is a BC, then A inherits barrierhood from B.

The notion of barriers is defined in terms of BC which is in turn defined in terms of L-marking. For A sentence to be grammatical it has to cross as few barriers as it can.

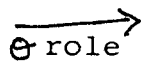
#### L-Marking

Is  $\Theta$  marking by a lexical category. It is a  $\Theta$  role assignment by an  $X^0$  level category.

In the example,

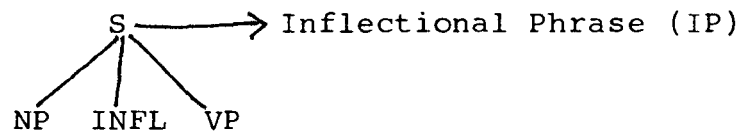


the V marks its object NP.



One of the new proposals to emerge from 'Barriers' is the idea that the two clausal categories S and S' are infect regular and rational with respect to  $\bar{X}$  theory. That is, they are projected from 0-level categories like any other maximal

projection and have the same specifier and complement structure as any category. S' is taken to be a (maximal) projection of complementizer (COMP), while S is taken to be a (maximal) projection of inflection (INFL)



The S  $\rightarrow$  Comp Phrase (CP)

IP - S = I" { NP [ I' [ VP' ] } - NP is a specifier of I".

S' = C" { e [ C' C' ] }  
 $\downarrow$   
 Wh Word

I'  $\rightarrow$  Infl + VP.

Chomsky assumes that the Infl assigns a  $\theta$  role to the VP.

With this brief account of Chomsky's recent contribution to the generative grammar, we complete the evolution of his theory, and in the next chapter will analyse in detail, the 'Binding theory' of the GB framework, applying it to Marathi.

CHAPTER II  
BINDING IN MARATHI

The Binding Theory

The GB framework consists of a Base having P.S. rules and a lexicon, a transformational component containing just the rule - 'move  $\alpha$ ' (which is constrained in its movement by the various filters) and two interpretive components, phonetic form (PF) and logical Form (LF). The various components are subject to a number of separate 'subsystems of principles', or sets of constraints. The subcomponents of the rule system (Chomsky 1918;5) are the following :

- (1) (i) Lexicon
- (ii) syntax
  - (a) categorical
  - (b) transformational component
- (iii) PF-component
- (iv) LF-component

The subsystems of a principal include the following:-

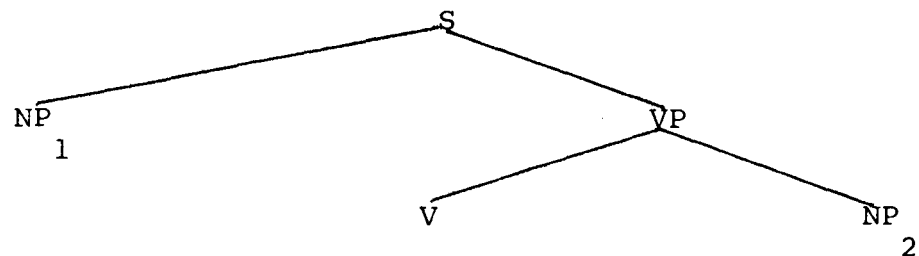
- (2) (i) Bounding theory
- (ii) Government theory
- (iii)  $\emptyset$ -theory
- (iv) Binding theory
- (v) Case theory
- (vi) Control theory

The most important of these subsystems of principles for the present purpose is the Binding theory, which is concerned with relations of anaphors, pronouns names and variables to possible antecedents (Chomsky 1981;6). The Binding theory accounts for the distribution and reference of different NP-types Lexical NPs, pronouns, anaphors, PRO and trace etc. Like the rest of the grammar, it operates at the level of the sentence. The antecedent-anaphor relationship, for example, is necessarily sentential. Thus for Chomsky, there is no anaphor above the sentence. He restricts the anaphors to a small class of overtly marked anaphor-Reflexives, Reciprocals, definite NPs etc.

'Binding' in itself is defined configurationally: 'It is a configurational property. Presumably, C-command that determines the operation of the binding theory, not a requirement that anaphors (or pronominals...) search for subjects as antecedents, in some sense of this notion that has any independent sense apart from the configurational properties. (Chomsky 1981; 154).

The theory accounts for the distribution of NP-types through a complex apparatus of its constituting constructs - Bound vs Free; C-command; minimal governing category, smallest domain-of-the subject etc. We will briefly describe these as revised upto 1986 in the GB theory.

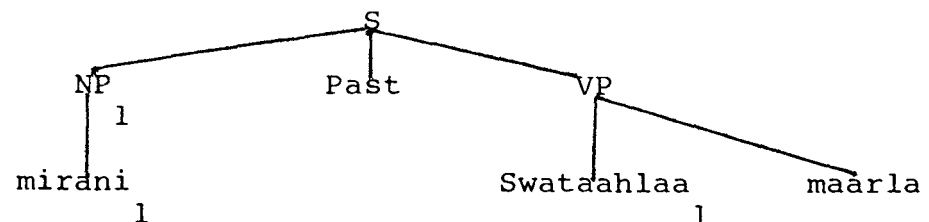
C-command was first defined in Reinhart (1979) and refers to a structural relationship between two nodes in a syntactic tree. It is defined as - 'A node C-commands a node if it does not dominate and the first branching node that dominates it also dominates the node'. Thus, for example, in the tree below, NP<sub>1</sub> C-commands NP<sub>2</sub> because the first branching node that dominates NP<sub>1</sub> namely S also dominates NP<sub>2</sub>. NP<sub>1</sub>, on the other hand, does not c-command NP<sub>2</sub>, because the branching node VP above it is dominated by S.



Notice that NP<sub>1</sub> is the subject and NP<sub>2</sub> is the object. NP<sub>1</sub> is in the domain-of-the subject NP<sub>2</sub> because it is c-commanded by it.

An element is BOUND when it is Co-indexed with a c-command NP.

Thus Mira (NP<sub>1</sub>) C-commands 'swataah her self' (NP<sub>2</sub>) below:



Since that relation holds and NP<sub>2</sub> is a reflexive, it is coindexed or bound to NP<sub>1</sub>.

Two kinds of indexes are used -

referential index and anaphoric index

The referential index is attached to the anaphor to exclude its coreference with the NP whose referential index it is. If the anaphor has coreference to the NP, than that NP's referential index is not added to the anaphor: Thus

Ram hurt himself  
i j

but Ram hurt him  
i ij

The referential index thus indicates disjointed reference.

Governing Category (GC)

A minimal S or NP which contains and a governor of x

(John hurt himself) -----> minimal S.  
↓  
governor

( mirani Swataahlaa maarla ) -----> minimal S.  
S  
↓  
governor

Governing Category : is the governing category for X if and only is the minimal category containing X, a governor of X and a SUBJECT accessible to X.

At this stage, it must be recalled that there was a subtle shift in perspective of the Binding theory. Initially as we saw, the actual binding rules were - "look for an antecedent", "coindex NP's", assign disjoint reference ". Later there was reformulation of the specified subject condition (SSC) and binding was subject to the smallest domain of a subject. Based on these assumption question were raised, and important issues like, the notion of binding limited only to A-binding and not A-binding the condition of the binding theory to be extended to a full range of NP-types and a demand for precision of the notion of "domain-of-a-subject" and a further possibility of it being assimilated with the notion of "government", led to a further change in face of the binding theory.

Earlier the domain-of-a-subject, a meant that the reflexive must be bound in the smallest clause that contains its governor. In technical terms, it is the governing category, where  $i$  is the GC for 'x' if and only if  $j$  is the minimal NP or S containing x and a governor of x. Thus, then, the reflexive must be bound in its GC. This worked well for cases like -

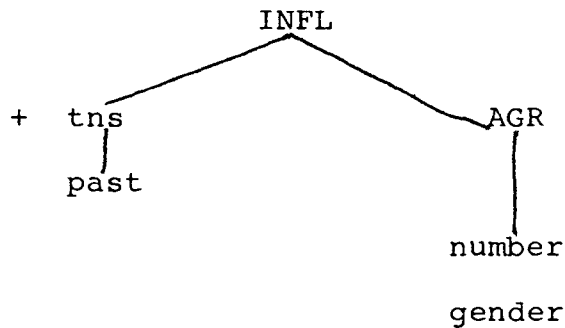
6a. John<sub>i</sub> expected ( Bill's<sub>NP</sub> stories<sub>j</sub> about himself<sub>ijNP</sub>)  
to be discredited.

But problems arose with sentence like -



- 7a. a. John expected (pictures of himself) to be on sale.  
 b. John expected that (pictures of himself) will be on sale.

This problem was solved by introducing two concepts - (i) AGR as subject, and (ii) accessible subject. The abstract element INFL subsumes the tense and number and gender (AGR).



This is a formulation of the fact that verb - inflection ~~takes~~ these three grammatical categories - tense office event, and number, and gender of the NP.

The agreement relationship between the agreement node AGR and the subject NP is expressed by coindexing the two:

( NP ( INFL ( + tns ) AGR ) INFL VP )  
 S i - i S

Further, this AGR which is coindexed with NPs carries typically nominal features and hence, in the structure above, it is assumed to be subject of S as NP<sup>i</sup>. Chomsky calls the AGR<sup>i</sup> as the "most prominent subject", and gives it the name subject (AGR<sup>i</sup> S). This subject unifies the SSC and the TSC because the specified subject is replaced by SUBJECT, which subsumes the TSC. The GC, according to this then would be -

$\alpha$  is the GC for x if and only if  $\alpha$  is the nominal category containing, a governor of x and a SUBJECT accessible to X.

The notion of accessibility is defined as -

Accessibility:  $\alpha$  is accessible to  $\beta$  if and only if  $\alpha$

C-commands  $\beta$  and the assignment of the index of  $\alpha$  to  $\beta$  does not lead to a violation of the i-within -1 condition (Reimsdijk and Williams 1986; 215 )

i - within - i condition:

\* (  $\gamma$  .....  $\delta$  ..... )  $\gamma$

Where  $\gamma$  and  $\delta$  have the same index.

The application of the revised definition can be seen in the sentences given by Reimsdijk and Williams (1986; 275)

8a. \*John expects that himself win.

( NP AGR v (S that (S himself AGR VP) ) )  
 s1 i i 2 2 1 i s2 s2 s2

In this sentence the governor of himself is the AGR of the embedded clause and it does not violate the  $i$  within  $i$  condition. But so, the reflexive should be bound within  $S_2$  it is not bound inside  $S_1$ . So the reference is ungrammatical.

Now in the following the  $i$  - within -  $i$  condition is violated and therefore Agr is not the accessible subject -

--- John expects that pictures of himself will be on sale.

8b. (S NP AGR V( that ( NP pictures of himself ) NP  
 $\quad 2 \quad i \quad i \quad S_2 \quad \quad \quad i \quad j$   
 AGR VP) ) )  
 $\quad j \quad S \quad S \quad S$   
 $\quad \quad 2 \quad 2 \quad 1$

The closest accessible SUBJECT, here, therefore is AGR and not AGR and NP is binder.

Now the Binding theory deals with the relation between an item and its probable antecedent. These relations, the "relation..... to possible antecedents" are two: "Binding" and "absence of Binding". Elements are bound whether refer to the same object. In the latter, Chomsky proposed two sub-types-'Free' and 'disjoint references'. 'Free' means that the antecedent may, but need not, be in the governing category. 'Disjointly Referring', on the other hand, means that an item must not be bound in it's GC (Reimsdijk and Williams 1986).

In the later revisions, it is realised that it is simpler to specify absence of co-reference. Thus, it is simpler to specify an environment in which an NP and a pronoun cannot be coreferential, rather than an environment where they can be coreferential. The procedure would then be to assign indices freely by the rule and subsequently filter out the unwanted cases of indexing (Reimsdijk and Williams 1986: 205)

- 3a.         "mirani; tilaa'maarla"  
                   *i*         *j*
- \*  
3b.         "mirani, 'tilaa' maarla"  
                   *i*         *i*         *i*
- (Mira her hit)
- 3c.         "mirani, 'swataahlaa' maarla "  
                   *i*                         *i*
- mira herself hit  
                   (mira hit herself)

Considered to be the heart of the GB theory, the Binding theory, essentially concerned with antecedental references, accounts for the distribution of NP - types in a language i.e. it is possible to characterise all NP-types in terms of the feature of presence or absence of antecedental co-reference. The NP types are :

1.   Anaphors - Reciprocals, Reflexives  
              ( eka-mekalaa), (swataah & aapan)
2.   Pronouns (he, she, they, him, etc.)  
              (to, ti, te, ha, etc.)

3. Empty categories
4. Names (R.Expressions)
5. PRO
6. NP - trace
7. Wh - trace
8. logical - variables.

Items 3,5,6,7 represent a clasification which in traditional grammar were considered as 'understood' elements. These Np - types are cross-classified by various systems of principles of GB theory, case theory,  $\emptyset$  theory, binding theory, bounding theory and so on. Thus the case theory provides a classification according to the distinction case-marked vs caseless.

Case - marked : reflexives and reciprocals

Pronouns

Lexical NPs

WH words

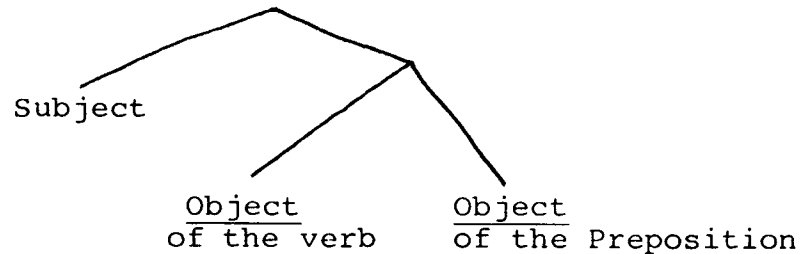
WH - trace and trace of Quantifier phrase.

Caseless : NP trace

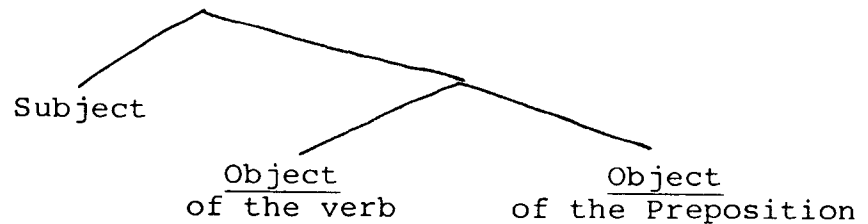
PRO

- which captures the fact that certain 'nouns' are case-marked.

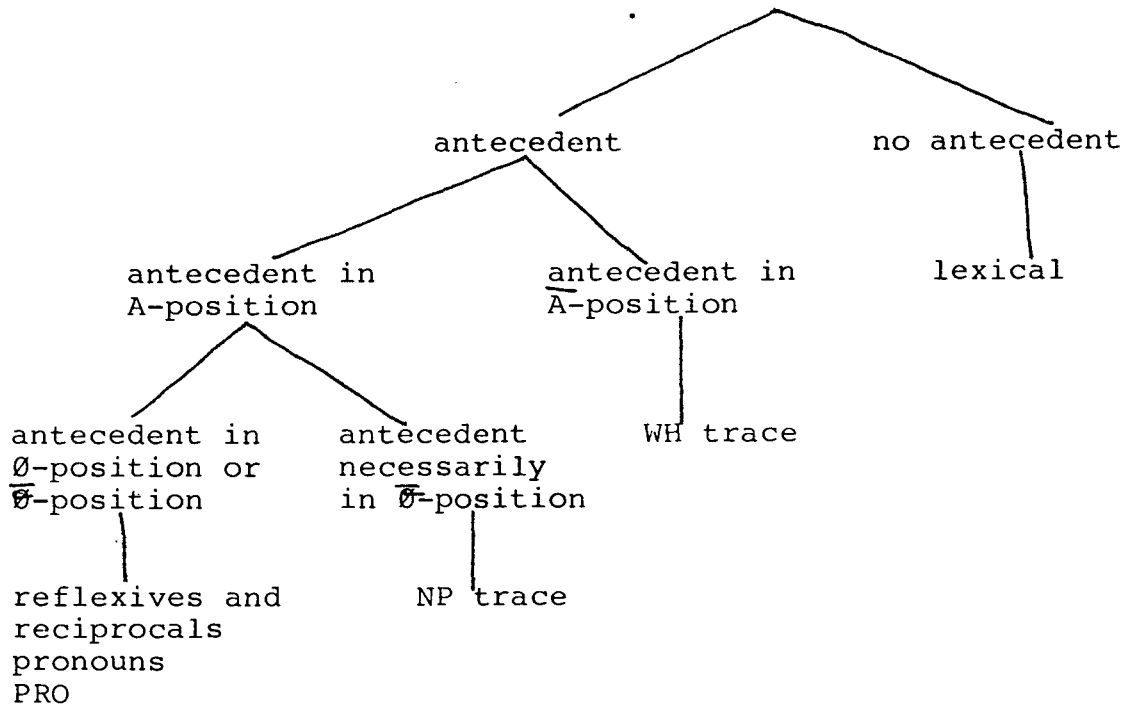
The  $\emptyset$  theory similarly classifies NP-types through the concepts of A-position and A-position. This is a very important concept and one that is intimately involved in the Binding Theory, for Binding Theory involves elements that appear in A-position, not A-positions. There are three Argument positions in language :



All other structural positions, where NP's may appear are non-Argument, or A- positions. A classification of NP's according to this principle shows that the possible antecedents of anaphors and pronouns, must be in the A - position. We reproduce here the modular classification of NP types given by Reimsdijk (1986: 260)



This reinforces the view that the traditional grammar constructs of subject/object may enter crucially into explaining anaphoric reference.



with this application, the 1986 version enumerates three binding principles:

The new Binding Theory given by Chomsky accounts for

- a) bound anaphors
- b) pronouns
- c) Lexical NPs.

The theory is subject to three principles :

- a) An anaphor must be bound in its minimal governing category.
- b) A pronominal must be free in its minimal governing category.
- c) An r - expression must be free.

(the three principles have been explained with illustrations from Marathi later in this section).

The question remains - what about the other NP-types ?  
 According to Chomsky, moved Wh-words are outside the domain  
 of the theory as they are in COMP and COMP is an A-position.  
 The unmoved Wh-, in multiple Wh-questions are like logical  
 variables which behave like lexical NPs. The same is true  
 for Wh-trace. NP-trace, on the other hand, is said to  
 behave like a bound anaphor, the essence of the trace  
 theory. What about PRO? To systematise the account of NP-  
 distribution two features have been posited to classify the  
 NP-types (will not go into details here):

( + Anaphoric )	( + Pronominal )
-	-

With these a classification of NP-types in terms of Binding  
 Theory is ~~a~~ attained:

- a. (+ anaphoric) Bound anaphors  
 ( )  
 (-pronominal) NP trace
- b. (- anaphoric) Pronouns  
 ( )  
 (+pronominal)
- c. (- anaphoric) lexical NPs  
 ( )  
 (-pronominal) logical variables
- d. (+ anaphoric) PRO  
 ( )  
 (+pronominal)

PRO is a complex element.



By the above classification PRO must be simultaneously subject to principles A and B. Reimsdijk and Williams (1986) explain this contradiction thus. This can be <sup>overcome</sup> if it has no GC. For that the NP-position has to be ungoverned which is the subject position of infinitival S. This is the position of PRO, referred to, as the PRO-theorem. (Reimsdijk and Williams 1986; p.277)<sup>1</sup>

## SECTION II

The Grammatical structure of Marathi

Marathi is an Indo-Aryan language spoken in West Central India including Bombay. (Dalrymple:1986). The unmarked word-order of the language is Sov.

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1 - Chomsky, later proposed the principle that PRO is ungoverned (Chomsky 1986; 183). Consequently PRO can never receive case; the case filter, which forbids overt NPs without case, ensures an overt NP never appears in this type of sentence. The paradox of a pronominal anaphor implied an impossible situation in which PRO was simultaneously subject to two binding principles. But if PRO is ungoverned, the concept of governing category no longer applies; as there is no governor for PRO it could never have a GC. Thus, its reference is determined not by Binding Theory but by the control theory, which determines the potential for reference of the abstract pronominal element PRO (LGB p.6) (Cook 1988; p.161).

There is a considerable amount of debate over 'PRO' and linguists like Bouchard (1984) argue that PRO can fit into the binding theory if it is seen either as a pronominal or as an anaphor.

The language comes under the class of "non configurational" languages, which derive this status alongwith other Indian languages by virtue of not possessing a fixed word order and hence are also called " free-word order" languages, unlike English, which has a fixed order.

### Nouns in Marathi

The nouns in Marathi are marked with postpositional<sup>1</sup> casemarkers

11a. "uday ni miralaa maarle"  
 uday ERG mira-ACC hit  
 (uday hit mira)

When a noun is postpositionally casemarked it appears in the oblique case, otherwise in the direct case.

mulga		mulaani
boy		boy ERG

### Pronouns in Marathi

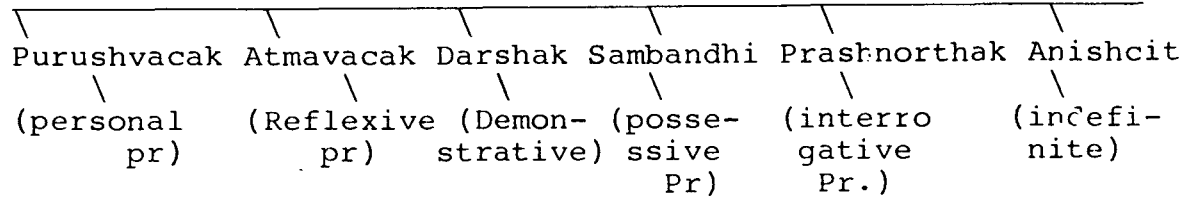
There are altogether nine prcnouns in Marathi:<sup>2</sup>

(not including number or Gender variants) -

Mi	Tu	aapan	swataah	To	ha	dzo	kon	kay
∖	∖	∖	∖	∖	∖	∖	∖	∖
(I)	(You)	(self)	(self)	(he)	(this)	(which)	(who)	(what)
		(we)						
		(you)						

1. Cited by Dalrymple (1986),

These nine pronouns have been divided into six types of pronouns.



Marathi nouns and pronouns are postpositionally case-marked and take the seven cases: Karta (nominative), Karma (Accusative), Karana (Instrument), Sampradana (Dative), Apadana (Ablative), Adhikarna (Locative) which are realised in the six cases - forms

Prathama	Karta	(nominative)
Tritiya	Karma	(accusative)
Chaturthi	Karana	(instrument)
Pancami	Sampradana	(dative)
Shashthi	Apadana	(ablative)
Saptami	Adhikarana	(locative)

These NP's can be divided into the seven GB classification of NP's discussed later in the chapter.

2. The detailed account of the pronouns in Marathi is based on Damle's (1970) grammar.

3. Aapan as will be elaborated later in this section has three distinctive uses and a fourth controversial use of the singular 'I'.

## Agreement in Marathi

In Marathi, the verb agrees with the subject unless it is case marked otherwise it agrees with the object unless it too, is case marked with ergative case in the past tense. In this situation, the verb agrees with the unmarked object.

- 18a. "uday ni pan khalle"  
uday ERG Paan ate neut sg.  
(uday ate a Paan).

Marathi also has dative subjects. It may be noted, that in Marathi, as in many Indo-Aryan languages dative and accusative marking are homophonous. The two may be distinguished on the basis of optionality. Marking appears only on animate or definite direct objects, whereas DAT marking always appears, regardless of the characteristics of the DAT-marked argument. The verb does not agree with the dative subject.

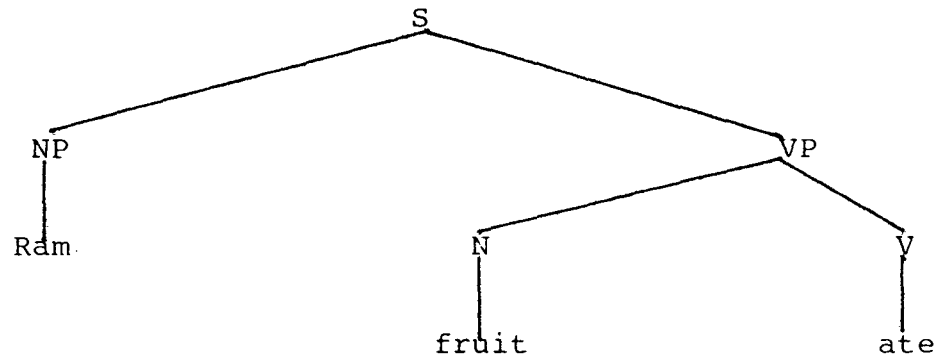
- b. "udayla miraci aathwan aali"  
DAT GEN memory came  
uday remembered mira/ (To uday mira's memory came).
- 

4. The description is that of Dalrymple's (1986).

## The Sentence Structure of Marathi

The sentence structure of Marathi is based on the assumption that the D-structure is the output of the basic PS rule - S -- NP + VP. Marathi, like all Indo-Aryan languages is a "Verb-final" language and hence has the word-order SOV (Subject-Object-Verb)

- 19a. "Ram-ni fal khalla".  
Ram ERG fruit ate.  
(Ram ate the fruit)



## Binding in Marathi

We will now illustrate the three Binding principles from Marathi. A brief description of the application of the binding rules to Marathi will be given before looking at the problematic cases as analysed by Wali (1976) (1989) and Dalrymple (1986). The 'indexing rule' is one of the

important basic assumption of the theory before the application of the various constraints that filter out the ungrammatical structure. we remain with the indexing rule, the SSC and then give the account of Binding principles with particular reference to anaphors. Finally we take up and review the problematic cases discussed by Kashi Wali etc.

The main concern of the Binding Theory as we are well aware now is how different categories of NPS are distributed in the sentence, like the anaphors such as 'aapan' and 'swataah', pronominals such as 'to (he) 'ti' (she), 'te' (they) etc. and R-expressions (names). One of the basic assumptions of the theory is that at d-structure, all positions receive an arbitrary index.

9a.            "Ravi ni Swataahca kaam Kela"  
                      i                                i  
                      Ravi - ERG Self's work did.  
                      (Ravi did his own work)

9b.            "Ravi ni aapla kam kela"  
                      i                                ij  
                      Ravi your/his own work did  
                      (Ravi did his own work)

In the sentence 9b. the SSC operates to give a correct interpretation of the anaphoric relation, the SSC (Specified  
5  
Subject Condition) is

"If a Pronoun is anaphorically free with respect to *i* in the domain-of-subject, then remove *i* from the anaphoric index of that Pronoun.

The SSC is an operation on LF that applies after the indexing rule. Thus, the SSC will derive (b) from (a).

10a. "Ravi -ni tyaca kam kela"  
i (i,j)

b. "Ravi ni tyaca Kam Kela"  
i (j)

Ravi ERG his work did

The erasure of the index (*i*) takes place because the pronoun 'tyaca' is in the domain of Ravi and is anaphorically free with respect to the (*i*) in the domain in one interpretation. At the same time, 'tyaca' need not be free in that domain and can refer to Ravi as the antecedent. In that case, co-indexing takes place, indicating a coreference by assigning the anaphor and its antecedent the same index.

---

5. The SSC was a condition proposed in the earlier version of the Binding Theory. In the revised version it was subsumed along with the TSC into the AGR. The reason for explaining the SSC here is to arrive at a more detailed account upto the revised version of the theory.

## Anaphors in Marathi

There are two anaphoric pronouns in Marathi, 'aapaṅ' ६ and 'Swataah'. These are two reflexives, or 'self forms'. The antecedent of both these must be a subject, which is obligatory and exclusive, no matter how they are case marked. It may or may not be case-marked. The status of these two anaphors has been a debatable issue for quite some time now. 'aapan' has been the most argued upon form of the two, mainly due to its various occurrences. Since the early stage of Marathi grammar, with its origin in Sanskrit, there have been a series of disagreements. 'Swataah' for example was originally an adverb in Sanskrit, but in Marathi it has been called a pronoun. 'aapaṅ' on the other hand has faced problems in its occurrences as a personal pronoun and a reflexive pronoun. The dividing line between the two is not very clear and hence gives rise to a lot of contrasting viewpoints. For the present, however, we will conform to Damle's description and look into the theoretical changes of aapan later. So, what we will describe first is the ७ traditional account of 'aapaṅ' and 'Swataah'.

---

6. Notice that we have called the reflexives pronouns as anaphoric pronouns. This is an accordance with Chomsky's division of anaphors and pronouns. Since we are analysing the application of the binding rules, for theoretical reasons, and to avoid any confusion in this section, we shall make use of this division.



'aapan'

'aapan' has two uses in Marathi :-

- (i) As a personal pronoun
- (ii) As a reflexive anaphor.

The reflexive use of 'aapan' is derived from the Sanskrit 'atman' which means 'self'. There is a considerable amount of overlapping in these uses, making it a controversial form. The uses of 'aapan' according to Damle (1970) are :

(1) "aapaṇ" as inclusive "we" (1st Person Plural)

12a. 'aapaṇ sagle milun rahuya'

we all together should live

(we all should live together harmoniously)

b. "Tyanna aaz dzau dya aapaṇ udya nighu"

Then today go let we tommorrow will leave.

(Let them go today, we will leave tomorrow).

(2) "aapaṇ" the honorific 'you' (2nd Person Plural)

The use of 'aapan' instead of "tu" (you) is essentially a form of respect, a feature found in most Indian languages, like 'aap' in Hindi and 'ninga' in Tamil.

---

7. 'aapan' and 'Swatash' have been given a detailed account due to their controversial positions and which further have a bearing on their problematic significance in the Binding theory as analysed by Dalrymple (1986) and Wali (1986,1989) as well.

13a. "aapaṇ uḍya yenaṛ ka?"  
you tomorrow come will?  
(Will 'you' come tomorrow?)

(3) "aapaṇ" as a reflexive

14a. "tyaṇi ramalaa Pustak dila ani aapaṇ nighun gela" he  
ram - to book gave and self left.

(he gave the book to ram and he (self) left)

Sometimes "aapaṇ" takes a reduplicated form to convey the deed done on one's own accord. "aaplya aap", "aapaaple" etc.

b. "tyala roz shalet pcvava lagta, aaz to aaplya aap gela".

he everyday school escorted be, today himself he went.

(he has to be escorted to school everyday, but today he went all by himself).

The difference between the Personal Pronoun 'aapaṇ' and the reflexive 'aapaṇ' according to Damle and all those who agree with the view is that the former can occur at the beginning of a sentence, whereas, the latter cannot. The Personal pronoun is said to occur only in the 1st and 2nd person plural forms. Its occurrence in the singular has been denied by Damle, as a mistake in perception. The reflexive aapaṇ, can occur in all three persons and both the numbers.  
(Damle 1970)

"Swataah"

"Swataah" is essentially a reflexive and derives its form from Sanskrit, where, to the pronoun 'Swa' (meaning self) was added the postposition 'taa' giving the form "Swataha". However in Sanskrit it was used as an adverb and the justification of it being used as a reflexive pronoun, according to Damle, is that it takes postpositional case markers and also means the same as the Sanskrit 'atman'.

The two anaphors do give rise to a confusion regarding their respective syntactic domains. Damle explains their status in the following sentences :-

15a. "mi Swataah"/\*"mi aapan".

I myself i myself

"amhi Swataah"/\*"ammhi aapan"

We Ourselves We Ourselves

"tumhi swataah"/\*"tumhi aapan".

you yourself you yourself

aapan, can, however occur in the dative, like in -

16a. "amhi aapla kam karu".

we our work will do

(we will do our work)

"aapan" and "Swataah", can also be used in a compound form as "aapan - Swataah".

17a. "tyani aaple - swataahce nuksan karun ghettle"

we his own self's loss caused.

(He was responsible for his own loss).

8

#### Analysis of Reflexives

Reflexive pronouns are anaphors in Chomsky's (1981) framework: that is, like the reciprocal 'each-other' and NP and wh-traces, reflexives are subject to Principal A of the Binding Theory which requires them to be bound in their Governing categories. A GC is the minimal S or NP containing the 'anaphor' and a potential governor for the 'anaphor' (one of the lexical categories, V, N, A, or P, or INFL).<sup>9</sup> The maximal projections S, NP, VP, PP and AP are absolute barriers to Government; any constituent contained in one of these projections cannot be governed by a C-commanding governor outside it.

Relatively little work has been done on the English reflexive, and the reciprocal 'each other' is the central representative of the anaphors. A speculation suggests that this could be more in keeping with his 'disjoint reference',

---

8. In our analysis, we have restricted ourselves to a detailed description of the anaphors in Marathi due to the continuing problems of classification of these anaphors, and hence have not analysed the other NP-types. The analysis is based on the three Principles of the binding theory (c.f.p.

9. INFL was proposed as a governing category after the revised version of the theory which subsumed the TSC and the SSC in the INFL element.

and 'coreference' rule that contrast the 'Pronominals' from the anaphors. The pronominals would be the ordinary pronouns and the empty PRO. The former will be interpreted as 'disjoint' in reference within a grammatical context where on the other hand 'anaphors', must be bound to their antecedents. The reciprocals are supposed to be more in a complementary distribution with ordinary pronouns than the reflexives.<sup>10</sup>

20a. Ajayni Swataahlaa Sangitla ki tyala

tyala

Swataahlaa

Ajay ERG himself/him told that himself/him

Swapna padla asel

dream had must have

The GC of the first occurrence of Swataahlaa/tyala is in the matrix clause, as the Pronoun is governed by the verb Sangitla (told). According to the binding conditions (A) and (B) the pronoun tyala must be 'free' in this context, that is, disjoint in reference from Ajay; the reflexive 'Swataah' in this position on the other hand requires that it be bound within the matrix clause (its governing category), and the C-commanding NP Ajay is the only antecedent available. In the embedded, tensed clause, on the other hand the Pronoun cannot be governed by the matrix verb 'Sangitla', since its

---

10. A speculation by Cornish (1986) who suggests a further reading of Brame(1983:160-165) on the difference between reflexives and reciprocals.

containing constituent is an  $\bar{S}$ , which is an absolute barrier to government. The Pronoun subject of the S dominated by the  $\bar{S}$  is governed by the node INFL, a node directly dominating tense and AGR, the agreement features, which once this node has been coindexed with the subject node and nominative case assigned to the latter, will eventually appear on the finite verb of the clause. The GC for the subject pronouns in the embedded clause, is, thus the S immediately dominated by the  $\bar{S}$ . 'Swataah', as an anaphor must be bound within this grammatical context, which is not possible, as there is no other C-commanding NP in this domain. 'Tyala' (him to) on the other hand, being a pronominal may take Ajay as its antecedent since 'Ajay' does not occur within its governing category where the pronoun is free according to the principle (B). Also, being free in its 'governing category', the pronoun is not required to take Ajay as its antecedent at all, and may (as the occurrence of 'tyala' in the matrix S must) refer deictically to some single male individual salient in the context of utterance.<sup>11</sup>

(ii)

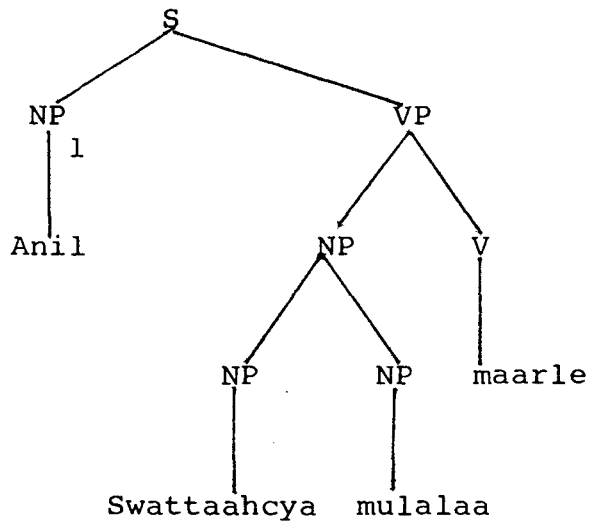
21a. "Anil ni Swataahcya mulalaa maarle"

Anil          Self's          Son          hit

(Anil          hit          his          son)

---

11. The analysis of this example is based on a similar example analysed by Cornish (1986) in English.



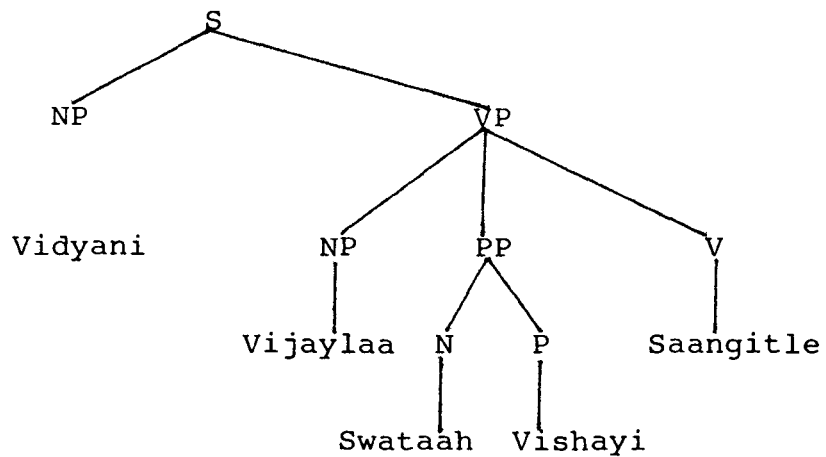
The anaphor "Swataah" is bound in its governing category. Anil is the antecedent of "Swataah" and the first branching node above it i.e. NP C-commands 'Swataah'.

1

22a. "Vidyani Anillaa Swataah Vishayi Saangitle".

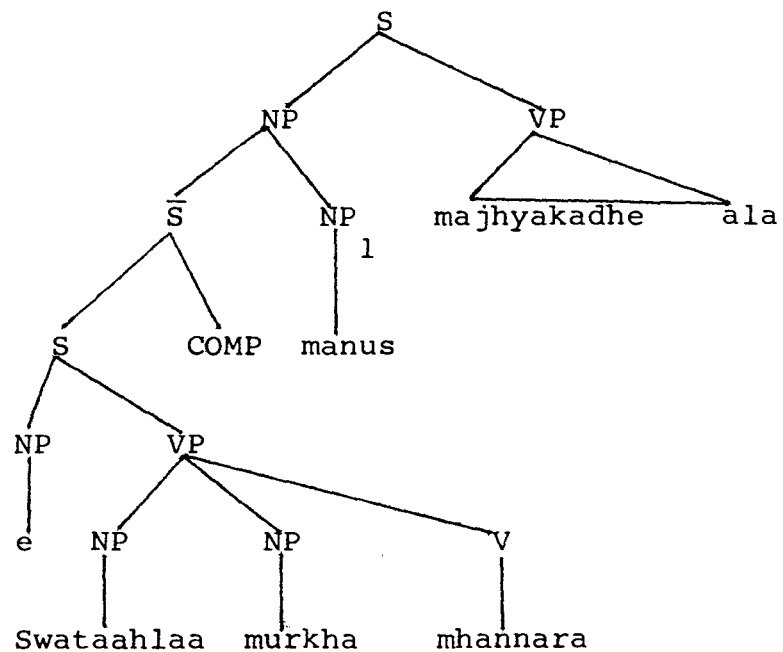
Vidya ERG Anil-ACC Self about told

(Vidya told Anil about herself).



Here, too, the anaphor is bound in its minimal governing category since the antecedent *vidya* C-commands it.

23a. Swataahlaa murkha mahannara manus majhya kadhe ala  
 Self-ACC fool Calls man to me came  
 (A man who calls himself a fool came to me)



Surendran observes that maximal projections like *S* are absolute barriers to government. In the given example, we cannot say that the anaphor 'Swataah' is bound in its GC. The only way out according to him is to state that the reflexive is bound to a C-commanding subject. Thus 'mannus', is the subject and it C-commands Swataah (Surendran 1986 ).

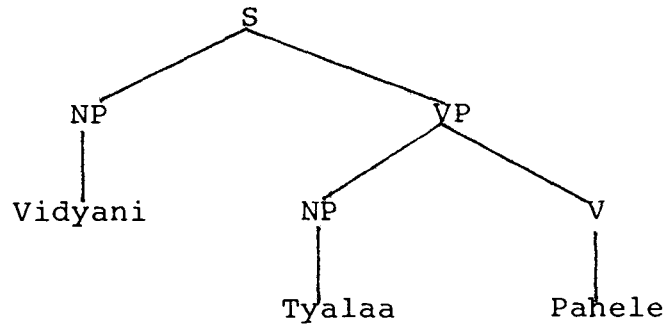
The Principle B of the theory says that make the anaphor pronominal should be free in its governing category.



24a. "Vidyani tyala Pahele:"

Vidya-ERG Him-ACC Saw

(Vidya Saw Him)



The governing category for 'Tyala' is the 'S' in itself and it is free in it.

"aapan" as a long distance reflexive

The feature of long distance binding was discovered in many Asian languages. In such a feature the antecedent reference does not have a restricted domain and thus crosses any number of clauses to look for its antecedent, and is perfectly grammatical. This is fundamentally against the "locality condition" of the binding theory. There were speculations regarding the word-order of these languages. Some were non-configurational and Marathi is one of them. Chomsky (1981.b) did not dismiss the possibility of such features in these languages, but dismissed them as not being



In this sentence, aapan has an antecedent in the matrix S, Anil. But it has a governor in its containing S, which is dominated by the  $S_1 S_2$ , as we all know, is a barrier to government, so aapan cannot cross its boundary to refer to Anil.

c. "Anillaa vattla ki aapan jinkel"

Anil to thinks that self will win.

[ NP AGR V [ Ki [ Aapan AGR VP ] ] ]  
 $S_1$  i i  $S_2$   $S_2$  i i  $S_2$   $S_2$   $S_1$

In this sentence, the governor of himself, aapan, is the AGR of the embedded clause and it does not violate the i-within-i condition. But the reflexive is not bound inside S and has a C-commanding NP outside it. Hence according to the binding principle, the sentence is ungrammatical.

Let's now look at an example, where aapan has a tenseless governing verb.

d. Miralaa aaplyaa Jinkayci apeksha ahe

[ S NP ( aaplyaa to VP ) ]  
 $S_1$  i  $S_2$   $S_2$   $S_1$

The verb is in the infinitive and aaplyaa is governed inside the GC to its governing verb. And it can be bound to NP .  
 $i$

The problem posed by aapan, then, is, that it occurs in the subordinates tensed clause and cannot cross the tensed boundary. How does the binding theory account for this ?

'aapan' as a Pronominal anaphor

After considerable amount of debate over the issue of aapan being a long-distance reflexive it was suggested that aapan has the properties of a pronominal too and thus cannot be strictly classified as an anaphor. Wali and Subbarao (1989) put forth a proposal to class the "aapan" in Marathi and the "tanu" (reflexive) in Telgu as coindexed pronouns on the basis of a concept proposed by Reinhart (1983).

Wali & Subba Rao (1979) claim that 'aapan' does not satisfy the requirements of a roots and a minimal NP with subject. At the same time, however, aapan lacks intrinsic reference like an anaphor and requires a c-commanding subject, but cannot be strictly called a reflexive as it shares the properties of a pronominal and an anaphor. To cite her own examples :-

26a. \* aapan haste (self laughs)/ti haste (she laughs).  
'aapan' requires a C-commanding antecedent.

B. \* (aaplyaa mulaa-ni) Lili - laa maarla  
i i  
self's son ERG lili-to hit  
Self's son hit lili.

C. Lili Samajte Ke aapan libral aahot  
i i  
lili thinks that self liberal is  
(Lili thinks that self is liberal)

- D.            Lili    Samajate   ki   Sushi   aaplya   laa\*   haste  
                                i    j    ij
- lili thinks that Sushi self to laughs  
(Lili thinks that Sushi laughs at her (=Lili))

'aapan' in root S and minimal NP

' aapan ' in root S and minimal NP.

- 27a.            Lili    aaplyaa - laa   haste  
                                i    i
- (Lili laughs at herself)

- d.            (Lili - ca   aapla   vislesan) nehmi   Suru asta  
  i    i
- (Lili - of self's analysis always continue is  
(Lili's self's analysis is always going on).)

According to Wali, the aapan, is unacceptable in the core local domains. 'aapan' does not have the status of regular pronouns in the local domains. She reiterates this in the following examples :- (Wali :1989).

aapan vs regular pronouns:

- 28a.            \* lili    la\*   haste  
                                i    ij
- Lili-ERG her - to laughs  
( 'Lili laughs at her' )
- b.            \* (Lili-ca<sub>j</sub> ti-ca\*   vislesan )   nehmi suru asta  
Lili-of her's analysis always continue is.  
( "Lili's analysis of her is always going on").

'Swataah', on the other hand, Wali, proves, fits into the slot for anaphors in the Binding Principle A. It is, thus, bound in its local domain which is the minimal governing category containing a lexical governor of 'Swataah'.

The distribution of the two anaphors, according to Wali's analysis.

<u>+ bound</u>	<u>- bound</u>
+ Local domain 'Swataah'	to ti, te (Regular Pronouns names)
- Local domain 'aapan',	
	variables,
	wh-trace.

In 'aapan' not having a local domain, the further implications are - It is not governed by AGR or mood. Unlike 'Swataah', it does not require the i-within-i condition and only requires a C-commanding subject.

#### Accessible Subject

The accessible subject has not been accepted without doubts by many linguists like Huang (1983) Yang(1983) Dalrymple(1986) etc. Some of them have expressed the feature of non-configurationality as the reason for not

accepting the AGR. Huang proposed, that the Chinese reflexive may appear in the subordinate clause by saying that the INFL in Chinese contains no AGR. He predicts that a reflexive may appear in a subject-position of a subordinate clause. Even when it is bound to an antecedent in a higher clause. By saying that INFL contains no AGR, it means, that there is no subject accessible to the subject position in the lower clause (the subject is not accessible to itself).

Huang denies Chomsky's distinction between anaphors and pronominals made on the basis of 'co-reference' and 'disjoint reference', where he calls them mutually exclusive. Huang denies this by illustrating in the following sentences. This holds in Marathi as well:

29a. They saw pictures of each other

They saw (pictures of them).

b. tyanni 'eka-mekace' citra pahelit

they each-other's pictures saw

c. tyanni 'tyanci' citra pahelit

they their pictures saw.

d. tyanni 'aapli' citra pahelit

They their pictures saw.

In all these, the anaphor and the pronoun share the same structural position and are not mutually exclusive.

In the previous analysis of other languages in the binding theory (reports at the end of this chapter), similar instances of local binding have been found. And in most

cases the notion of 'accessible SUBJECT' seems to be a stumbling block. In Marathi, in earlier analysis by Wali (1970) and Dalrymple (1986) 'aapan', was analysed as the Long-distance reflexive and within the GB format it faced problems in identifying its closest "Accessible SUBJECT". The other reflexive, "Swataah", on the other hand, termed as the short-distance reflexive, seemed to fit in well with the GB principles according to these analysis. Later, on the basis of Huang's (1983) argument, and the above findings, "aapan", was analysed as a possible exception to anaphors. The distinction marked between pronominals and anaphors has been adopted by many linguists including Reinhart ( 1983 ). The essential difference that the anaphors require a GC while the Pronominals do not, has been the catch. This is mainly because the notion of "Accessible SUBJECT" is clearly related to the notion of possible antecedents within a local domain, essential for the anaphors, but not for pronominals. For pronominals, as Huang (1983) argues it does not matter in grammar what their possible antecedents are, since, they may not have antecedents at all and can be used deictically.

Wali (1989) seems to have adopted Huang's argument in identifying the pronominal and anaphoric qualities in "aapan" existing simultaneously and called it a "pronominal anaphor". She further bases her argument on Reinhart's notion of co-indexed pronouns. Which become bound pronouns when anteceded by a Quantified , wh-Question NP's.



Aapan (Wali 1989)

- a. Classified as coindexed pronouns, a pronominal anaphor.
- b. Does not occur in the root S and minimal NP subject.
- c. Requires only a C-Commanding subject NP.
- d. Bound, but no local domain.
- e. Its local domain is not limited by AGR or mood. Not subject to the SSC and the i - within-i condition does not apply.
- f. Bound to a C-Commanding subject, outside its local domain.

Coindexed Pronouns (Reinhart 1983)

Distinguishes them from Regular Pronouns. The two are homophonous but the R. Pronouns are co-referential, Pragmatically determined. The co-indexed pronouns become bound pronouns when anteceded by quantified and Wh question NPs and show up in the sloppy identity context.

30a. Sarvaanaa vaatta ki 'aapan'; libral aahot/\* te<sup>i</sup>  
libral aahet.

Everybody believes that self libral is they  
libral are.

Everybody believes that self/\* they are libral.

30b. aapan/\* to libral aahot asa konaa-laa vaatta  
self/\* he libral is that who believes.  
Who believes that self/\* he is libral ?

### Sloppy identity

'aapan' is expected to give only the sloppy identity unlike the R-pronouns.

31.a        Lili-laa    Vaatta    ki    aapli    bahin    liberal    aahe

              aani    agdi    tasac    Ravilaa    vaatta.

Lili-to feels that self's sister liberal is and exactly same Ravi feels.

Lili believes that self is liberal and Ravi believes exactly the same.

### Problem for the Binding Theory and Previous Analysis

Initial criticism toward the binding theory came from languages like Japanese, Korean, Indo-Aryan and Dravidian languages, which had the feature of 'Long-binding'. The Binding theory could not account for such features then and hence Chomsky claimed that they are not anaphors in essence. Later on Chomsky (1986) did propose a binding theory for such features but most of the linguists do not appreciate the separate account which moves away from the original framework and would appreciate if there were to be a solution within the original framework.

Yadurajan (1989)<sup>12</sup> cites examples from Kannada which pose problems for the theory :-

32a. (Taanu baruvuda Kaagundill vendu) raamanu bare diddaane  
(S NP AGR himself VP comp) ram has written  
himself cannotcome that  
tensed finite clause

A long distance anaphor has to have an antecedent subject. In the sentence the closest accessible subject is AGR and it violates the i-within-i-condition. The AGR is in the embedded clause, but the NP is not bound in the S and cannot cross the tensed finite clause to look for an antecedent in 'raamanu' in the matrix S. Yet this is a perfectly grammatical sentence in Kannada.

Even in English, Yadurajan (1989) says, ambiguous sentence like -

33. John told (Bill stories about himself)  
Can pose problems for the notion of subjects as antecedents.

#### Distribution of Pronouns and Anaphors

Haung (1983) and further evidence from Malayalam, Surendran (1986) Marathi, Wali (1989) etc. seems to defy the notion so far and proposed by Chomsky, that pronouns and anaphors are in complementary distribution with each other. As a result the binding theory does not make provision for

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12. The description is taken from Yadurajan's lectures delivered at D.U. (Feb. 1989).

the pronouns and anaphors to occur in the same environment as in the example which were given earlier and in

- 34a. They read their books
- b. They read each other's books.

The problem of Co-indexing

Yadurajan (1989) cites examples in English - and these are applicable <sup>12</sup> in other languages too - where there exist problem of co-indexing. In simple sentences like :-

- 35.a John told Bill that they should leave.

The theory does not provide for an indexing system of 1+2 = 'they' and neither can we put 3 as an index for 'they'. There are no referential indices available for 'they'.

Korean 'Caki' - Problems in the Binding Theory

Kang (1989) in his analysis of the Korean reflexive 'Caki' poses problems for the binding theory. The reflexive 'caki', which is basically interpreted at the sentence level, take an antecedent indefinitely far away from it. He gives an example ( Yale Romanization system is used for the transcription of the Korean sentences).

- 36a. John - i Bill - Gypey (mary ka Caki lul  
i 2 3 1\*  
NOM DAT NOM self -all
- Cohaha - nta - Ko) Malhayssta
- like - DEC Comp said

John said to bill that mary liked herself/him

Kang finds Caki interesting in that they violate the supposedly local character of the reflexives. He feels that any theory of reflexives should be flexible enough to handle these kind of unbound reflexives in Korean. Kang also claim similar properties for the Japanese reflexive 'Zibun'.

The solution for this, as many other linguists have claimed in such cases in other languages, is to postulate that within the binding framework, such features do not have AGR and hence, accordingly, the locality condition also doesn't arise. But Yang (1983) Kang (1987, 1989) show that, at the same time, it has been noted that the Korean reciprocal 'sero' (each other) shows strict locality.

37a. Soyantul - i (aitul - i sero \* - tul)  
boys - NOM children NOM acc  
Cohaha - nta-ko) malha - ass-ta  
like-DEC-Comp Say - past-DEE.

The boys said that the children<sup>2</sup> liked each other.

Kang (1989) finds the solution proposed untenable, because in GB, as we are aware, the reciprocals and reflexives are anaphors following the same principle A of the Binding Theory.

Similar problems have been identified in many languages and linguists like Huang (1983) suggested that the governing category for reflexives and reciprocals may differ in a

given language. On the basis of this argument, Huang by citing the examples of anaphors and pronominals in complimentary distribution with each other given earlier, says, that the notion of accessible subject" has good motivations for anaphors but not for pronominals.

Kang (1989) however, fear that as a result of arguments as quoted above, the next step would be, to assume different GC's for reflexives and reciprocals. He quotes Mazini and Wexler (1987) as taking this line of reasoning and finds it too far awar from the original spirit of GB.

## CHAPTER III

### ANAPHORA IN DISCOURSE

#### Introduction

The function of anaphora discussed so far, in traditional Grammars and Generative Grammars has been established as a 'relation' either between a noun and a pronoun, or between an anaphor and its antecedent. In the Generative phase the relationship came to be restricted in terms of a 'domain'. The domain was a sentence or a clause identified as the minimal 'S'. This restriction is thus imposed on the anaphor, that it must have a necessary reference within the minimal 's'. This made it, possible to account for its referential Content within the theory as something that is 'grammatical' and "rule-governed". The relationship between the anaphor and its antecedent was a 'formal' one, accounted for, in the theory of grammar.

In this chapter, we will discuss the discourse property of the anaphoric elements which stand in opposition to the previous 'Grammars'. We will also explain these properties with the help of illustrations from Marathi and analyse a short text for its discourse elements.

## Discourse

Primarily, then, we define a discourse "as a hierarchically organized sequences of utterance-acts which jointly accomplish a communicative goal". [Cornish [1986 ; 135]. This goal is realised by the interaction of smaller "local goals". This 'local goal' has a specific function to perform. It establishes a referential link with the bigger communicative goal, thus making the discourse, a connective text.

It refers to the linguistic level above the sentence, considered as an object of study. It denotes a unified set of one or more sentences connected semantically (and ideally) representing a completed utterance.

There is a considerable amount of disagreement between the Generative Grammarians who regard the 'Sentence' as the basic unit of analysis and those who analyse discourse as a whole. The disagreement exists mainly due to the difference in approaches and the necessary requirements that follow, to make up these approaches. What can be captured by a discourse, referentially, cannot be captured by the sentence and vice-versa. Werth, in fact, even states that all the properties of a discourse are also properties of a sentence, since the sentence does, form a part of the discourse. But to capture the nuances of these properties, the discourse, as a whole, is needed, as the sentence is itself fails to do so. A Discourse, then, can be said to synthesize the sentence properties into its own. (Werth 1984).



Discourse, also, involves a verbal context which is syntactic and grammatical, and also a situational context. Linguists involved with sentence-Grammar would for theoretical reasons, not consider the situational context which necessarily involves an extra-linguistic world. The situational context, involves, 'language-in-use', and this is not an important prerequisite in the 'Chomskyan orthodoxy'. Chomsky distinguished between 'competence' and 'performance'. According to Werth, in discourse 'competence', is the verbal surround of the given 'S' and the 'language-in-use' is the performance (Werth 1984). For obvious, theoretical reasons, 'performance' is excluded from the theory of S-Grammar.

To the discourse grammarians, performance has a direct bearing on the verbal surround. But in the S-Grammar it is excluded to the extent of leaving its accountability to other branches of study, like the rhetoric, macro-linguistics, or performance-studies.

Anaphora in discourse

'Anaphora' apart from its sentential behaviour, has been established as an important device in the construction of a discourse.

The problem of interpretation of an anaphora in discourse is identified on two plains - 'spoken discourse' and 'written discourse'. Spoken discourse is the most problematic, as it requires an assumption of the field of reference to be understood. In the Sentence -

"tyani saangitla ki to, tithe gela"

he said that he, there went.

the pronouns 'tyani', 'to' and 'tithe', need to have the same identity for both the speaker and the listener. Written discourse on the other hand can be divided into-'Text' and 'Sentence'. The 'text' too requires a problematic identity of reference which can occur within or outside the text. The sentence, however, is the least problematic of the three.

Anaphora in discourse, maintains a reference to an earlier established reference for a particular duration infers a latent-discourse referent via an existing one, among other functions. We will observe the function of anaphora in the following sentences.

1. Sarvanchi icha aste ki, te, eka swantantra pakshi sarka jagat rahava. Pan tyaca sathi Swataahcya payawar ubharahun Swataahcya Swabhimān rakhavinyaci kshamata asavi lagte.

(Everybody feels that they should live the life of a free bird. But for that, the ability to stand on one's feet and secure one's self-respect is a must)

In the discourse unit above, the anaphor 'Swataah' which occurs in the second sentence, has an antecedent in the main sentence, 'Sarvanchi' (Everybody) Sarvanchi has a reference outside the sentence. As a discourse property, the anaphor, maintains the reference of 'Sarvanchi' even if it in itself occurs in another sentence. (a point of departure from the sentence - Grammar).

- (i) Swataahcya Payawar }  
                                   } refers to sarva (Everybody)  
                                   } on Self's feet.
- b. Swataaca Swabhimam }  
                                   } refers to Sarva (Everybody)  
                                   } Self's Self-respect

(ii) 'Tyaca Sathi' (for that), on the other hand, infers a latent discourse referent of "everybody's wish to lead the life of a free bird".

The reference of an anaphor, is established within a 'domain' (not to be confused with 'domain (of the generative grammar). Anaphora in discourse, has been identified in terms of its domain-of-reference, which the anaphora constructs, maintains or changes within a developing discourse mode, (as illustrated in ex- 1a) Cornish 1986. P. 134). To distinguish between the two uses of 'domain' in the discourse model and in the Generative Grammar, Grimes says, the 'domain' has a very broad scope encompassing the construction by the speaker) writer of a homogeneous internally consistent universe, whether "fictional or factual" (Grimes (1975; Ch. 20.1) <sup>1</sup>). The 'domain' has also been called, the 'field of reference' by-Grimes. Several

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1. ~~cited by~~ Cornish (1986).

other terms have been used to refer to this functionally defined unit of discourse realised in the spoken or written form. The 'domain-of-a-reference' is also identified as a 'local goal' (c.f. P.2) and the anaphor is an important functional device which helps in the formulation of this local goal as stated earlier.

The problem of anaphoric reference in a discourse seems more of that of an interpretive connection between the segments which contain the antecedent and the anaphor. The segment, as suggested in the previous paragraph, is a "wider utterance segment" (Marslen-Wilson Levy and Tyler (1982: 367) which in its entirety functions as a referential device. To illustrate the concept we will apply it to an extract from the text 1 analysed later in this section.

2a. Damlyanca dinacarya prarambh, devpujene hot ase

(Damle's daily routine began with the worship of God.)

Pahate Carla Uthun, Snanadi Vidhi ataplyawar, Swataahce

(early morning at four, bath etc finish, self's)

Kapade Swataah dhuun, Valat ghalun, te Sumare

(clothes self wash put-to dry, he, around)

taasbhar Sandhya, devpuja, ityadi kar:t.

(an hour Puja ect. did.)

This extract is a description of Damle's daily routine which is stated vividly in the first statement. An elaborated description of the routine in the sentences which follow, display a unity of purpose. The sentences :-

Pahate carla uthun  
Snanadi Vidhi karun  
Kapade dhuun, valat ghalun  
taashbar, sandhya, devpuja karu t



form a "wider-utterance segment" which functions as a referential device for Damle's routine. Cornish argues, that it is due to such wider domains in a discourse that, an anaphor derives its reference in the form of a full contextual interpretation, thus ruling out the possibility of within the reference or 'Subject-localised' relationship, like in the Generative Grammars.

Both in Grammar and in discourse, the anaphor has the same tense and number as it's antecedent. The interpretation of the anaphor depends on these referential properties. In discourse, however, it also requires identification of its arguments status with reference to the predicate and other discourse related functions. For example, the sentences:-

3a. "Ramni 'Swataahca kaam kela".

in which 'Swataah is the argument of the Predicate verb kaam. In another sentence -

"Shyamni Anilca kaam kela, pan Ramni Swataahca"

the ellipsis after 'Swataah' functions as a predicate anaphora because 'Swataah', is it's argument.

#### Properties of a 'Text'

The well formedness of a text requires connectivity (or coherence) which is claimed to be the single, most important principle of textuality. Connectivity is realised in four ways.

- (i) Cohesion (formal connectivity)
- (ii) Collocation (lexical Connectivity)
- (iii) Connectors (logical connectivity)
- (iv) Coherence (Semantic Connectivity) Werth 1984)

In this section, we will analyse a text and our main concern will be to establish an important contrast in the treatment of formal connectors in the 'sentence-grammar' of the generative phase and the discourse-grammar.

#### Cohesion

It is wholly accounted for by the exigencies of identification and contrastivity in a discourse and both these conditions are semantic. (Werth. 1984) ; P.60). Cohesion is also seen in contrast with segmentation of units in a text, depending on the message. For a text to be 'cohesive', it must be implicitly or explicitly bound together and not just be a random collection of sentences.

Example :-

4a. Swatantrata divascya Samarohakarta, tyaca, Samman rakhavinya Sathi, Pradhan mantri Smt Indira Gandhini Pandhri Sadi nesli hoti. ashya sadya dakshin bharatet khoob miltat. Samaroh velewar suru zala.

(on the independence day, in the honour of the occassion, the Prime Minister Mrs. Indira Gandhi wore a white sari. Such sarees are found in abundance in South India. The event began on time.)

This is not a 'cohesive' text as it does not have a connective link and seems a random collection of sentences. There is a sudden point of departure, in the , description of the saree, and then, a return to the previous context, not making any particular sense if the same text had excluded the description of the Saree, it would have been a cohesive unit.

The connectivity of the elements of a text is essentially a matter of meaning and reference, and what a text analyst is concerned with, is the formal means by which these connections are signalled" (leech and short 1981; P. 244). The problem is, of Linear connectivity between sentences and within them. Leech and short list the following elements in a sentence, calling them 'cross-reference'.

I Definite reference

(a) Personal Pronouns: he, she, it, they, etc.

to, ti, te, etc.

(b) the definite article : 'the'

(c) deictics: this, that, these, those, etc.

he, te, hi, te, etc.

(d) Implied: same, different, other else, such etc.

Sarkha, Vegla, dusra, aso, etc.

II Substitutions:

Pro forms such as one, ones, do, and so, which

ek, ho, and asa.

substitute for other linguistic expressions.

III Ellipsis:

Omission or deletion of elements whose meaning is 'understood' because it is recoverable from the context.

IV Formal repetition:

Repeated use of an expression (morpheme lexical item, proper name, phrase etc) which has already occurred in the context.

V Elegant Variation:

Use of an alternative expression (not a pronoun or a substitute) as a replacement for an expression in the context.



They also list the elements which link the various sentences within the text.

Linkage

VI Co-ordinating conjunctions:

and or, but, both and neither ..... nor etc.

ani, nahitar, pan, donhi etc.

VII Linkage adverbials:

for, so, yet, however, therefore, meanwhile for  
karta, asa, azun, taripan, manhun, tavar,

example, etc.

udaharanarthi, etc.

Leech and short illustrate with the example -

"The princess loved the hunter. But 'she' could not marry <sup>him</sup>"  
~~him~~, in which, in the second sentence, 'she' and 'him'  
involve, cross-reference, and the conjunction 'but', is an  
example of linkage cross-reference involves a repetition of  
an idea or of another element already referred to or  
mentioned in different parts of the text linkage involves  
the use of over connectors like conjunctions and linking  
adverbials.

To illustrate the cohesive devices, we have chosen an  
extract from Moro keshav Damle's life, in his 'Marathi  
Grammar' (1970). This passage is a description of Damle's

daily routine, which is a description of the traditional mode of daily routine and ritual in the Brahmanical tradition.

The text

Damlyanci dinacarya

Damlyanci dinacaryaca prarambh, devpujene hot ase. Pahate Damle's daily routine began with puja. Every morning Carla uthun, Snanadi vidhi ataplyawar Swataahce kapade at four waking up, bath etc, routine after finishing, Self's cloth.

Swataahac dhuun, valat ghalun, te sumare taasbhar Sandhya, self washing, put-to-dry, he around one hour puja.

devpuja ityadi, karit; aani mag du;dh gheun satca etc would puja perform; and then milk having bought around, seven

Summaras vruttapatre vacun kaamala lagat. daha vazta sovale seven papers read having at work get down. Ten O'clock dhot.

nesun jevlyawar thodi vishranti gheun, te vyavasayasthani wearing, having eaten, little rest taken, he office would

zat. parat alyawar sandhyakali, thodeshe khane-pine karun go. after returning evening-in the a little eating-drinking

mulanna shikvit.

children teach to.

The text

The text describes Damle's daily routine. A noticeable feature of the extract is the feature of implicit reference and inferred linkage throughout the text. The second sentence for example, begins with,

'Pahate carla uthun'

and has the implicit reference to Damle's routine in the first sentence. Moreover, there is no overt use of a pronoun and it is understood that it is Damle, who would begin his day early in the morning. Throughout the extract, no conjunctives like 'and' or 'because' have been used, thus giving the text a property of inferred linkage. Every routine is followed by another one, without, 'and' or 'then, showing the inferred linkage - like in,

Pahate carla uthun - Snanadi vidhi karun - Swataahce kapade dhuun - valat ghalun - etc.

The gaps, between the phrases represents the null existence of a conjunction, not used to avoid unnecessary repetition and redundancy. It gives the extract a continuity and represents the time-bound routine of Damle. There is, a use of a coordinating conjunction, 'aani-mag', once in -

"devpuja ityadi kari:t; aani mag du:dh gheun...."

This use seems more of an emphasis on the cultural and traditional values in the Brahminical mode of life, where the day begins early in the morning with a bath and a puja. It is only after these essential routines that Damle would begin the other routines.

There are altogether fourteen NPs in the text. They form a part of the wider utterance segment which has a unity of purpose. The whole segment refers back to Damle. Each individual NP has a reference in Damle.

- |     |                                |                      |
|-----|--------------------------------|----------------------|
| 1)  | Dinacarya (routine)            | - Damle's            |
| 2)  | DevpuJa (PuJa)                 | - Performed by Damle |
| 3)  | Snan (bath)                    | - Damle's            |
| 4)  | Kapade (clothes)               | - Damle's            |
| 5)  | Sandhya (PuJa)                 | - Performed by Damle |
| 6)  | Vruttapatre (reading material) | - read by Damle      |
| 7)  | Kaam (work)                    | - Damle's            |
| 8)  | Sovale (dhoti)                 | - Damle's            |
| 9)  | Jevan (dinner)                 | - Damle's            |
| 10) | Vyavasayasthani (office)       | - Damle's            |
| 11) | Vishranti (Rest)               | - Damle's            |
| 12) | mula (children)                | - Damle's            |
| 13) | Khane-Pine (eat drink)         | - Damle's            |
| 14) | dudh (milk)                    | - bought by Damle    |

These NP's occur in various 'Local domains' which have a specific function of significance within the limited

structure, in order to contribute to the significance of the wider domain. For example, the first NP, Dinacarya, occurs in first sentence which describes the beginning of Damle's routine. This discourse 'topic' is explicated, by the other NPs and their governing (in the 'generative' sense) verbs and prepositions occurring within the 'local goal'. But unlike the generative claim, this 'local goal' or 'local domain, apart from it's limited structure, has a much wider reference to the whole discourse unit. The whole unit, thus, has, various 'local domains', depending on their 'topics' and together, they form a cohesive unit.

The text uses two Personal Pronouns - 'te' and 'swataah'. The anaphor, 'swataah' in particular does not merely link the event like the Generative grammarians where the relation was of coreference, but also establishes the identity of reference. It functions as an argument of the predicate. It refers to Damle in the first sentence and thus links the identity of the subject across sentences. Unlike the other linkages in a discourse, 'swataah' is far more specialised in function and is an important device in the 'connectivity' of a discourse. It emphasises, replaces, reduces redundancy and can occur anywhere in a discourse, with backward reference to a previously occurred element or can have an outside reference altogether. The anaphor cannot have an implicit reference like the pronoun - te' in the given text, mainly due to its function of emphasis and reducing redundancy. 'Swataah' is first subJect to sentence

grammar - i.e. its coreference is established with Damle. But the referential context, or function of Swataah is not exhausted by this in the given discourse sample. It has to go to the noun it modifies which can occur across many sentences in the discourse unit. For example :-

Swataahce kapade

in which 'Swataah' refers to 'Damle' across the sentences, thereby reducing the possibility of 'kapade' referring to other people's clothes. A reader processes the 'Swataah' in totality in this way.

The pronoun 'te' in the text also refers to 'Damle' but unlike 'swataah' it has an implicit reference and sometimes even undergoes ellipsis like in - Parat alyawar - sandhyakali, where 'te' is an implied reference. An interesting property of 'te' in a discourse is its status of being 'bound' unlike the claim in the Generative grammar that it is 'free' in a sentence. In the text, throughout, the use of 'te' is bound to 'Damle', across sentences even in the elliptical reference as stated above.

The other reflexive 'aapan' in Marathi, unlike 'Swataah' need not be 'bound' within the discourse unit, even 'Swataah' has an antecedent within the discourse segment. But 'aapan' goes out of the Segment to look for its antecedent. For example, we refer back to the age-old usage of apan as the inclusive 'we' -

"aapaṅ mitra kan nahi hot ? Tulahi tec pahiJe, mala Pan tec PahiJe. Pan dhartilaa te nako hota, aakashalaa te nako hota."

(why don't we become friends ? You want it, I want it too; but the Earth and the Sky didn't want it.)

In this extract from the novel - "Passage to India", an Englishman extends his hand of friendship towards the Indian, who finds the situation, irreconcilable, due to the overriding influence of the Earth and the Sky under which he lives and who, do not want a merger of the two Skies.

'aapaṅ' in the beginning of the sentence seems to carry a much more significant function, even above, the inclusive 'we'. The 'we', here, refers to the Englishman and the Indian as obvious contexts. But why not attribute a more significant reference to 'aapaṅ' and say that it also includes the Sky, the Earth etc as it is portrayed as a part of the dilemma faced by the Indians, and has a Semiotic reference for him. The other units, the NP-types, the Pronouns, 'tec', 'te' etc contribute to the 'topic' in the first sentence and thus refer back to it. The extract is a cohesive unit in this sense.

The two anaphors in Marathi, thus, perform a wider and complex discourse function and accordingly require an account beyond the Sentence Grammar too.

## Conclusion

We will review the treatment of pronouns and anaphora in the three linguistic theories and in the process probe a few areas as possible question and alternatives to these treatment.

In the Pre-Generative phase, the pronouns reference has to be inferred - its grammatical categories, number, person, gender acting as matching conditions. Two other constraints are also mentioned - the antecedent, must be mentioned and it ought to be in the same 'sentence' (i.e. clause). Therefore in this phase, it is left to the hearer's/reader's deduction - who a process of deductive reasoning, establishes the reference of the pronouns.

In the Generative phase, the noun is introduced originally in the deep structure. Then by the rule of Pronominalization, a pronoun is substituted for the second occurrence of the same noun. So at deep structure, the reference is established. This, however, would not apply to cases where the pronoun has no antecedent in the sentence - viz He left.

The GB framework attempts a systematic theory of the distribution of all NP's including pronouns. It classifies ~~them~~

- (i) Lexical NP's
- (ii) Pronouns and



according to their distribution. Then it establishes their reference through a process of indexing. What items are to be co-indexed to show their co-reference and which items are to be so indexed as to show 'disjointed reference' is not left to the judgement of the hearer/reader/learner - it is determined by the grammatical structure which is defined in terms of certain given constructs such as Governing category, Governor and C-Command. So indexing is non-arbitrary. Two kinds of indexes are used - 'referential index' and 'anaphoric index' - for the purpose of marking reference. The theory is intended to be universal, so its constructs and claims apply across languages. To these constructs and claims there is invariably a counterpart in the traditional grammar. The difference lies in the degree of formalisation achieved by modern grammatical theory. Also, the Binding conditions apply or involve A-positions. This also recognizes the fact that subject/object are involved. This could be restated in terms of case also - Nominative in subject position; Accusative in object position etc.

#### Coreference possible

1. John hopes that he will get the prize.
2. John wants Mary to like him.

In sentence (1) the pronoun 'he' is a subject of the dependent clause and is in the nominative case. In sentence (2) the pronoun is the object of the dependent clause and is in the accusative case.

Only disjoint reference

3. John likes him

4. John wants him to get the prize.

In sentence (3), the pronoun is the object of the main clause and is in the accusative case. In sentence 4, the pronoun is the object of the main clause and agent of the infinitive to get.

5. He wants Mary to like John

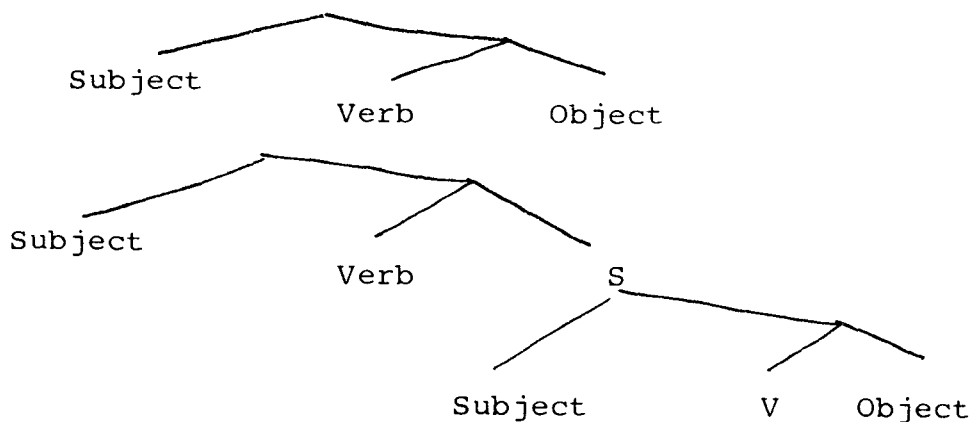
In sentence (5), the pronoun is the subject of the main clause and is the nominative case.

We can restate the above as :

1. The object of the main clause (3,4) ] are always  
and subject (5) ] disjoint.
2. Object, subject of the dependent clause (1,2)

+ disjoint  
-

These could be represented as -



Now, GB too seeks to use the concept of "SubJect of main clause or of dependent clause" in a condition that governs the relation of an anaphor to its controller and states - "An anaphor must not be free in the smallest domain of a subject in which it occurs" (Reimsdijk and Williams 1986;222)

Much the same applies to Reflexives :-

Control, Bound Anaphora and NP trace:

The rule governing the bound elements in the binding theory is - The element must not be free in the 'smallest-domain-of-the-subject'. The Reflexive must have an antecedent. We will once again refer to the examples stated in Chapter II -

1. Those picture of himself<sub>1</sub> please John<sub>1</sub> .
2. John talked about himself to Bill  
(John talked to Bill about himself).
3. John expects himself to win
- 4.a John expected (pictures of himself) to be on sale  
b John expected that (pictures of himself) will be on sale  
c John expects that himself will win.

In Ex.1, the 'antecedent' comes after the object of preposition in an NP Subject.

In Ex.2, the 'antecedent' comes as the object of preposition in a PP object.

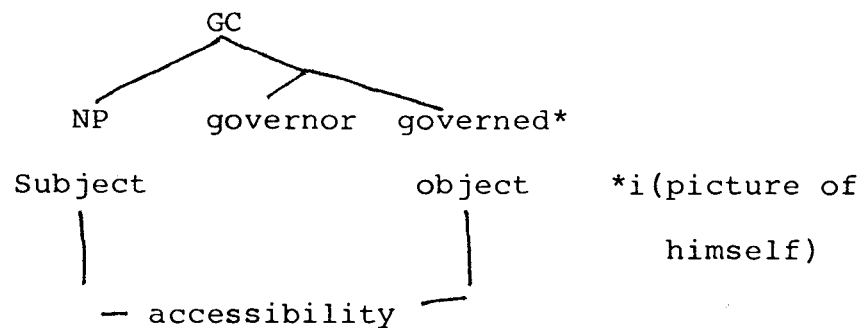
In Ex.3, the 'antecedent' is not bound in the minimal clause and is 'governed' outside it's clause, by 'expects' and the subject is John.

In Ex. 4a the 'antecedent' is the object of preposition in NP - object and subject of 'to be' in the dependent clause.

In Example 4.b it is the object of preposition in NP and subject in dependent clause.

In Example 4.c, no antecedent in it's governing category, so it is co-indexed with the closest accessible SUBJECT (Reinsdijk and Williams 1986 ; 273) and there is a redefinition of governing category'

When in a dependent clause in NP object or subject, the antecedent is outside the dependent clause. When in PP - Subject, the antecedent comes later.



( Reimsdijk and Williams 1986 ; 276 )

The problems encountered in Marathi, of 'aapan' and Swataah, whether they are pronominals or anaphors can also perhaps be handled in the grammatical function framework interacting with the main clause - dependent clause pair.

A very complex apparatus is involved in GB which is the natural consequence of refining a framework which starts with a given assumption.

In chapter - II, we gave an account of the anaphor, 'aapan' in Marathi and the 'tanu' in Telugu as being 'Pronominal anaphors' and not pure reflexives. They are said to be bound to a quantified NP and are also called - 'Co-indexed Pronouns' (Reinhart 1983), necessarily contrasted from the regular pronouns (for a detailed account c.f.chap. II). On the basis of this account we would like to raise a question. Can there be a possibility of including the 'Semantic' aspect of these 'bound pronouns'? Evans (1980) gives an account of the 'Semantics' of these bound Pronouns which according to her are Semantically dependent on the regular pronouns. To illustrate :-

"Pratyek mansala aapli aai aavadte.

Every man to his mother likes.

(Every man likes his mother).

We cannot give the same account to this sentence, as we would give for -

Ravilaa aapli aai aavadte,

Ravi to his mother likes.

(Ravi likes his mother).

But at the same time they do not have unconnected explanations. According to Evans, it is simply not credible that the speaker's capacity to understand the two sentences is unconnected semantically. This can be illustrated in -

"Ravilaa aapli aai aavadte"

(Ravi likes his monther)

and -

"Kontyahi mansala aapli aai aavdat nahi."

(No man likes his mother)

The aim, then, Evans says, should be, to provide, an account which is adequate to deal with Pronouns in both the categories.

Anaphoric reference is found in a sentence and in discourse as well. The anaphor in a discourse has a much more complex function in terms of a 'referential domain' which can be anything and anywhere either within the discourse unit or outside it as we saw in chapter - III. The Pronoun is in the subject position and has a 'Topic' role along with other devices of cohesion necessary for a discourse. The Long-distance anaphor in Marathi 'aapan' seems to perform a very complex discourse function as an inclusive 'we' and the short-distance anaphor 'Swataah' does not seem to have a restrictive domain in a discourse unlike its position within the generative grammar.

The 'Anaphora', then, has a much<sup>more</sup> complex application than has been projected in the 'Sentence Grammar' of the generative theory. What we need now, is a total grammar which will account for the behaviour and conditions of the anaphora. Both in a sentence and in a discourse.

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