SOME ASPECTS OF DETERMINER PHRASE IN BANGLA AND ASAMIYA

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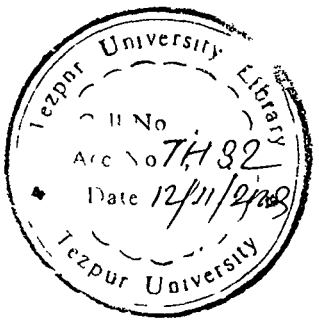

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to

Vindhya

my life-long companion in search of truth . . .

DECLARATION

This is to certify that Mr. Rajat Ghosh carried out research under our guidance and supervision to write the Ph.D. thesis titled ***Some Aspects of Determiner Phrase in Bangla and Asamiya.*** This thesis embodies the findings of his own work and enquiry of original nature into the topic. He has fulfilled all the requirements under the Ph.D. regulations of Tezpur University.

We certify that the thesis as a whole or in part has not been submitted elsewhere for obtaining a degree.

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– Rajat Ghosh.

ABSTRACT

The structure of Determiner Phrase (DP) proposed by Abney 1987 is a new designation for the erstwhile Noun Phrase (NP). The shift of syntactic headship of a nominal expression consolidates the hypothesis that phrasal and clausal architectures are similar and the structure of a nominal expression is entirely x-bar friendly. Examination of Determiner Phrases of two languages involves an understanding of the relations between various constituents of a nominal structure. Following Abney, a global discourse is on for re-negotiating the basic principles of determining the fundamental similarities across languages and local differences theoretically known as 'parameters' which distinguish sister languages. In an attempt to contribute to one domain of that global discourse, this dissertation focuses on two Eastern Indic languages, Bangla and Asamiya. The study of the Determiner Phrase in these two languages aims at examining the applicability of theoretically motivated proposals for different types of DP structures in order to explore slightly overlapping databases and at working out the point of distinction in the DP structures of these two languages.

The first chapter shows the stages of development of the DP-analysis and its impact on the study of nominal constructions of other languages. It starts by stating how the parallelism between nominal and clausal Inflection has been established. In the next step, it describes how, in Abney's system, the D(eterminer) is proposed to be the nominal inflectional head which selects a nominal maximal projection NP as its complement. Due to the absence of an AGR morphology as well as an article (the proposed candidates for lexically substantiating a D node) in Bangla and Asamiya nominal expressions, proposals of other modifications on Abney's DP-structure are reviewed in this chapter. The main among them is that a canonical DP structure must be a tripartite one with an intermediate maximal projection between DP and NP. The importance of this intermediate node for the present work is that it can

accommodate the classifier, an item that typologically characterize Bangla and Asamiya as Class languages. Since the present work concentrates on the relation of classifiers with quantifiers and demonstratives, the first chapter also considers works that examine different slots that generate articles, demonstratives, quantifiers and possessives. Finally, theoretical support is sought in favour of a key assumption that classifiers are basically nouns. The idea reported here is that across categories, a lexical head, a functional head and a head intermediate between them are committed to an identical categorial feature specification; it is (+N,-V) in the nominal domain.

The second chapter presents the Bangla database and its earlier descriptions that focus on the use of the classifier in nominal constructions. It reviews three types of its analysis: first, as a 'demonstrative signifier' by Tagore 1891; second, as a 'definitive' by Chatterji 1926 and third, as a classifier by Dasgupta 1983, 1985. The third one is reported more exhaustively because it provides the basic issues that the present work seeks to explore. The role of classifiers in quantification and definiteness marking and the presence of Aggregation instead of Number in Bangla as discussed by Dasgupta is reported here. It gives directions to the present work that concentrates on the same areas with regard to the Asamiya nominals.

The third chapter deals with the Asamiya database and its earlier descriptions. It reports how classifiers have been identified and how their role in expressing quantification of nouns have been studied. The key issues are: the post-positional occurrence of classifiers, definition of nature of objects by classifiers, observations on definite and indefinite constructions, similarity of classifiers with some other nouns and possibility of expression of Number by some classifiers. This chapter prepares the ground for the next chapters in deciding what is common between Bangla and Asamiya and what is not.

The fourth chapter starts by mapping Bangla and Asamiya nominals in a typological perspective. It is shown that they belong to the group of numeral

classifier languages. Typological information is included in detail to understand structural generalisations regarding the use of classifiers, numerals, quantifier nouns and count nouns and regarding the fact that classifier languages do not show Number. The next sections are developed on the basis of the minimalist assumption that a language consists of a lexicon and a computational syntax. Organisation of classifiers in the lexicons of Bangla and Asamiya is presented with the help of comparative feature matrices which show that the Asamiya feature matrix determining the use of classifiers in compatibility with the classified nouns is more elaborate than its Bangla counterpart. In exploring the common factors related to the syntax of DPs in Bangla and Asamiya, the main focus is on the syntax of quantification. Individual and Collective aggregation are argued to be the common deciding factors in the interpretation of quantified nominals in these two languages.

The fifth and final chapter addresses the issues related to parametric variations. First, Bangla and Asamiya are shown to be distinct from Hindi as Hindi shows Gender and Number in mutual exclusion of Class and Aggregation. After grouping Bangla and Asamiya together against Hindi, the structural difference in their DPs is studied. The difference is formalised in terms of an Excapsulation Parameter which states that in a classifier-using language, the DP's demonstrative complex may present the classifier material (its aggregation value or its lexical features) either quite generally as in Asamiya or very marginally as in Bangla. The demonstrative-classifier capsule is a syntactic object formed of rearrangements of the properties of the lexical items i.e. demonstrative and classifier. In addition to showing this difference, it is argued that Asamiya classifiers are truly semi-lexical as opposed to Bangla ones which are formalised. The classifiers and semi-lexical nouns of the two languages are brought under a unified analysis and a language boundary is proposed on the basis of values of formal features. The distinction in the values is related to the proposed Excapsulation Parameter.

CONTENTS

Chapter Two: The Bangla Database and Earlier Descriptions

Chapter Three: The Asamiya Database and Earlier Analysis

Chapter Five: Aspects of Parametric Variations

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Chapter One

Aspects of the Canonical Determiner Phrase

1.0 Introduction:

This chapter is devoted to tracing the development of a particular trend of analysing the nominal constructions of the world's languages, a trend called the Determiner Phrase Analysis or DP-analysis. The works reported here are presented in a chronological order since in this case history corresponds to the logical order in which issues are developed. These writings address concerns that range from establishing the sentential features of nominal constructions to preparations of mechanisms of analysis to be extended to the study of DPs of some languages which no generative grammarian has analysed so far.

Research towards formalising the UG structure (the structure in Universal Grammar) of the nominal construction has always worked with the standard assumption that a nominal expression is headed by a noun. Abney 1987 is the first to contest such an assumption and he offers a persuasive alternative. Continuing to pursue the objectives of establishing parallelisms between the structures of a canonical phrase and a canonical clause and of making the architecture of a nominal expression compatible with the frame of x-bar syntax, Abney proposes that a nominal expression is headed by a determiner and that the noun phrase should be treated as a complement of D. Therefore, a nominal construction should be called a Determiner Phrase and not a Noun Phrase. This chapter attempts to understand how several generative linguists negotiate to work out a phrase structure for the Determiner Phrase that should be capable of accounting for all cross-linguistic variations. The chapter starts by reporting the work of Szabolcsi 1984, 1987 whose analysis has significant influence on Abney 1987. It then presents Abney's major proposals with an emphasis on the distinction between lexical and functional categories in the nominal domain.

To make the DP-structure relevant for the present work on Bangla and Asamiya we need to see its validity as an analytical tool to understand certain crucial facts of the nominal constructions of these two languages. It becomes necessary then, to take into account many modified versions of the DP which are proposed by several analysts to whom Abney's structure seems incomplete.

1.1. The proposals for the functional head of a nominal structure:

In this section, we shall see how the existence of a functional category in the nominal domain has been argued for by Szabolcsi and Abney. It is a landmark in the history of analysis of nominal structures since it makes it possible to assume that nominal and clausal structures are parallel.

1.1.1. Parallelism of morphological organisation: Szabolcsi's work:

Szabolcsi 1984, the immediate precursor of Abney 1987, deals with Hungarian nominal expressions. She observes that the morphological organization in a nominal expression looks parallel to that in a sentence. She argues that the noun phrase in Hungarian is like a sentence because both of them have an INFL and a peripheral position. The possessor in a Hungarian nominal expression occupies the same slot as the subject of a sentence does and the possessive indicator on the noun appears in the same slot where tense/mood appears on the verb in a clausal structure. She shows that the facts related to the Hungarian noun phrases fit with the traditional assumption (for example Jackendoff 1977) that the possessor functions as the subject of NP. The following paradigm bears evidence to that:

(1)

a. az én - Ø vendég - e - m
   the I - nom guest-pos-lsg 'my guest'

b. a te- Ø vendég -e-d
   the thou-nom guest-pos-2sg 'thy guest'

c. (a) Mari - Ø vendég - e - Ø
   the Mary-nom guest - pos – 3sg 'Mary's guest'

Her point is that the morphological dependency pattern within these noun phrases is parallel to that of the sentences, with only one difference. Namely, the possessive morpheme on N in a noun phrase is in the place of the tense/mood morpheme on V in a sentence. This difference is clear from the following comparison:

(2)

a. Mari - Ø alud - t - Ø
Mary-nom sleep- past-3 sg ' Mary slept'

b. (a) Mari - Ø vendeg - e - Ø
the Mary nom guest - poss - 3 sg 'Mary's guest'

Since the absence of past-3sg from (2a) and poss-3sg from (2b) will make the expressions equally ungrammatical, it is reasonable to suppose that NP in Hungarian has its own INFL, which, approximately like the INFL in a configurational S, governs the subject and assigns it nominative case. Assuming that 1(a,b,c) are grammatical only with the order indicated here, Szabolcsi posits a base rule like the following :

(3) NP → NP INFL N' where INFL is [± Poss,(AGR)]

The issue that arises here is that since S in English has a COMP position to be used as an escape hatch for the subject and since the NP in Hungarian has a (±Poss) feature, it may have a COMP too. This is an extension of Stowell 1981. Further facts related to the occurrence of a wh-operator as a dative possessor and the possibility of the removal of a dative possessor are explained by assuming that the dative possessor occupies a peripheral (non-A) position within the X^{max}. This leads to the extension of the parallelism between NP of Hungarian and S of a configurational language to the following :

(4)

a. NP' → KOMP NP

b. NP' → NP INFL N' where INFL = [±Poss,(AGR)]

Szabolcsi 1987 gives the following data to show the presence of an overt agreement marker in the noun phrase:

(5)

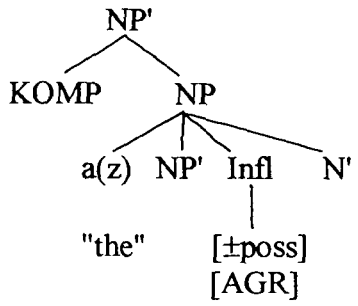
a.	az	en kalap - om	
	the	I-nom hat - 1sg	'my hat'
b.	a	te kalap - od	
	the	you-nom hat - 2sg	'your hat'
c.	a	peter kalap - ja	
	the	Peter-nom hat - 3sg	'Peter's hat'

The noun kalap can be replaced in this paradigm by any noun. It agrees with its possessor marking its person and number with an agreement marker. The possessor bears nominative case and in this regard, it is similar to the subject of the sentence. In the sentence, nominative case is assigned by the AGR under government. It is assumed that nominative case in the Hungarian noun phrase is also assigned by the AGR under government.

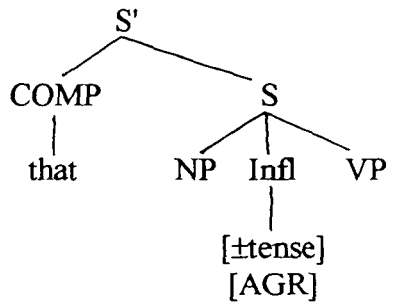
Szabolcsi consistently draws a parallelism between the structures of Hungarian noun phrases and (configurational) clauses. Szabolcsi 1981 proposed the following structure in (6a) which can be compared to the standard clause-structure proposed by Chomsky 1981, shown in (6b) below:

(6)

a.



b.



This parallelism serves as a background to Abney 1987 who proceeds further in the direction of identifying a functional head of a nominal construction.

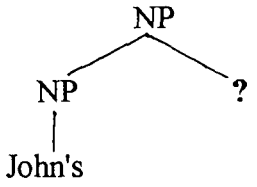
1.1.2 The DP-hypothesis takes shape: Abney 1987:

Abney 1987 begins by an attempt to match Szabolcsi's Hungarian facts with the "poss-ing" gerundive constructions in English. He points out that the following English construction can be treated both as a noun phrase and as a sentence:

(7) John's building a spaceship

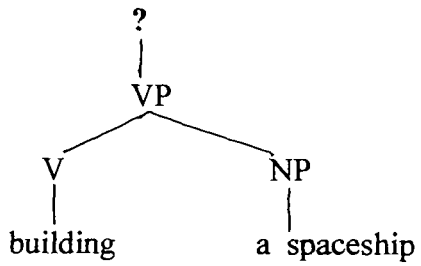
It is a noun phrase regarding its external distribution: it occurs in exclusive noun phrase positions like the subject position under subject-aux inversion, the embedded subject position or the object of a preposition. Abney calls John's the subject of the gerundive and argues that it behaves like the subject of a sentence since it receives the possessive case and not the nominative case. Assuming that the gerundive is a noun phrase, he gives the following fragment of the structures:

(8a)



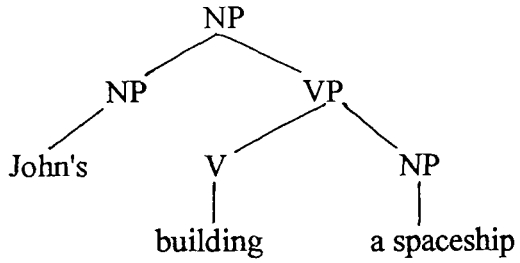
As it seems to be clear that the rest of the gerundive, i.e. building a spaceship constitutes a VP, he presents the other fragment of the structure as the following:

(8b)



In an attempt to fit the structures in (7) and (8) together, Abney finds that the following cannot serve as a solution,

(9)

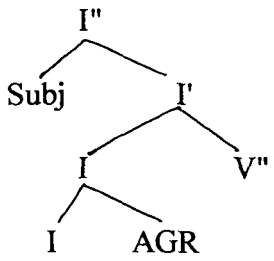


because it violates the established norms of phrase structure since here the highest NP lacks a head. The VP cannot be that missing head because its syntactic category is not the same as the NP.

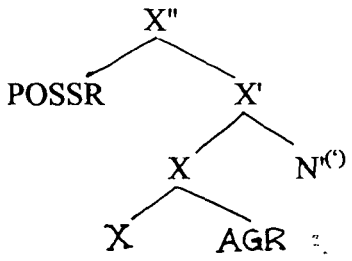
Abney takes into account the Hungarian facts from Szabolcsi 1987 (see (5) above) and starts from the common assumption that in the sentence, AGR occupies an inflectional position outside the maximal syntactic projection of V. It follows, then, that AGR in the noun phrase occupies a similar inflectional position. Thus, in Hungarian the structures of noun phrase and sentence are parallel as is shown below:

(10)

Sentence:



Noun Phrase :



In case of the noun phrase, the category of X is not clear; it is only a nominal inflectional category. It cannot be said that it is INFL, because in that case sentences and Noun phrases cannot be distinguished as different syntactic categories. Nevertheless, X is similar to INFL.

This leads to a number of issues which need to be settled. The most important ones are the following:

(a) What is the category specification of X?

(b) Is the projection of N which is sister to X, maximal ?

These questions could be avoided if it is supposed that AGR in the noun phrase does not appear in the same structural position as AGR in the sentence. An alternative would be to say that AGR is adjoined to N°. But this hypothesis is also problematic. (For details see Abney 1987:19-20).

Abney then examines data from Turkish to relate the structure of the Hungarian noun phrase to the puzzle of the English gerund. Turkish is similar to English on the one hand as both of them have gerundive construction of the possessive-ing type; on the other hand Turkish is different from English as it shows an overt AGR in the Noun Phrase, e.g.:

(11)

a.	el		
	'the/a hand'		
b.	sen - in	el - in	
	you-gen	hand - 2sg	'your hand'
c.	on - un	el - i	
	he - gen	hand - 3sg	'his hand'

Comparing Turkish with Hungarian, Abney shows that they are similar in that Turkish noun phrase is also headed by an inflectional element which hosts AGR, but the difference between them is that the nominal AGR assigns nominative case in Hungarian and genitive case in Turkish.

So far as the Turkish gerund is concerned, it is similar to English in two ways: one, it behaves like a noun phrase in its distribution and two, it shows genitive case on the subject, for example:

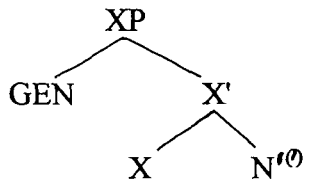
(12) halil-in <u>kedi-ye yemek- Ø ver-me-dig-i</u>
Halil-gen cat - DAT food-ACC give-NEG-ING-3sg
'Halil's not giving food to the cat'

The underlined portion in the gerundive expression in (12) constitutes a verb phrase and this is its further similarity with English.

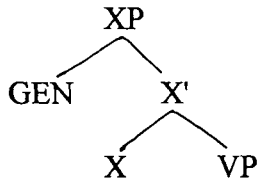
If the Turkish noun phrase is analysed with the structure in (10), the facts of the gerund can be accounted for. Gerunds are exceptional because the nominal inflectional element takes VP as a complement, instead of a projection of N. The Turkish non-gerundive and gerundive are the following:

(13)

a.

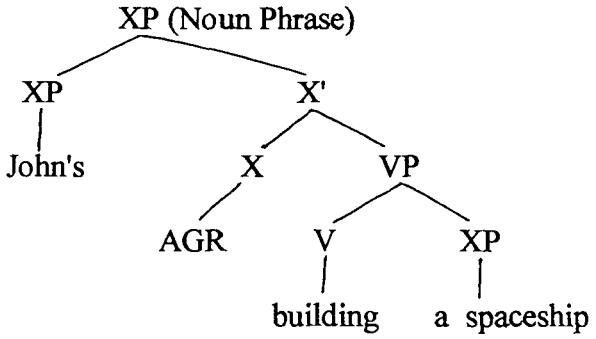


b.



This analysis treats the gerund as being a 'selectional quirk of X' when it exceptionally takes a verbal rather than a nominal complement. In the English gerund, then, there is an empty nominal AGR, which assigns genitive case. This corresponds to the overt nominal AGR in Turkish. Thus, the fragments in (8a) and (8b) can be fitted together as the following:

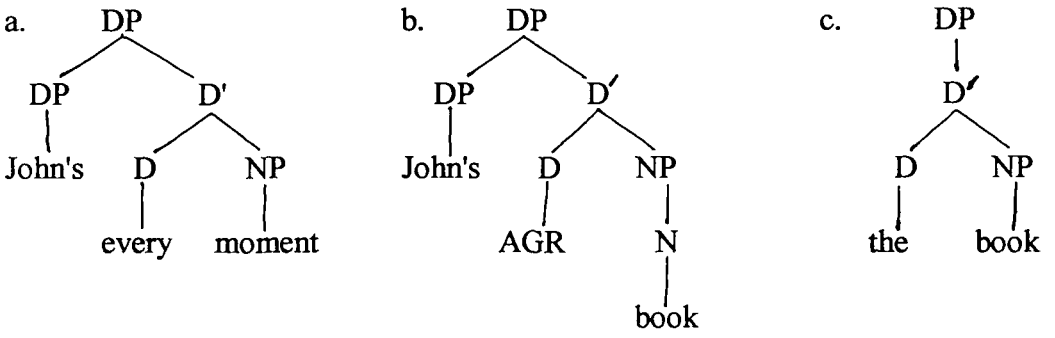
(14)



Having established that X is the noun phrase correlate of INFL, Abney argues that X as the category of the noun phrase is supplied by Universal Grammar and it is not learnt. Subsequently, there is a need to identify a class of lexical elements of category X. Drawing a parallel to the fact that the lexical class of category INFL is the class of modals, Abney finds the real candidate for X to be the determiner. If the

Determiner is a word that should project a phrasal node, the question that follows is, what are the specifiers and complements of Determiner? The most plausible answer that Abney has is to let the possessor be a specifier whereas the complement would be a projection of N. Therefore, the structure of the nominal construction (noun phrase) should be the following:

(15)



The hypothesis that D is the inflectional head of the noun phrase is called the "DP-analysis" from this point on. Abney follows the following criteria to judge D as the functional head of the noun phrase:

a. Functional elements constitute closed lexical classes.
b. Functional elements are generally phonologically and morphologically dependent. They are generally stressless, often clitics or affixes, sometimes even phonologically null.
c. Functional elements permit only one complement, which is in general not an argument. The arguments are CP, PP and DP. Functional elements select IP, VP and NP.
d. Functional elements are usually inseparable from their complements. The syntactic relation between a functional element and its complement is f-selection.
e. Functional elements lack "descriptive content" i.e. "a phrase's link to the world".

With these criteria Abney develops his argument to establish the following points:

a. NP's inflectional head is Det: Det has all the properties of a functional element – it constitutes a close lexical class, it is often phonologically weak, it is inseparable from its complement and it lacks a descriptive content.

b. D selects a nominal maximal projection (NP) as its complement.

c. The pronouns are the intransitive determiners, they are DPs containing only the functional head.

d. N is the semantic head of the noun phrase.

e. Prenominal descriptive adjectives are the nominal equivalents of the VP auxiliaries.

f. AGR in D does not co-occur with the lexical determiners.

g. There is a need for two distinct specifier positions within the noun phrase, one for possessor/external arguments and one for quantifier phrases/measure phrases.

To conclude this section, we present the following comparison of Abney's and Szabolcsi's work as Szabolcsi 1994 makes:

(16)

Szabolcsi (Hungarian)	**Abney (English)**
a. The noun phrase has a sentence-like structure containing an inflection . It is headed by a determiner.	a. The noun phrase has a sentence-like structure containing an infection.
b. Inflection is 'real', whereas the determiner that heads the noun phrase is an analog of the complementizer (C). Therefore DP = CP	b. Inflection ('s or empty AGR) and the determiner that heads the noun phrase belong to the same category. Therefore DP = CP.
c. Determiners fall into two distinct categories; only the article belongs to the category D which heads the noun phrase.	c. All determiners belong to the category D that heads the noun phrase.

1.2. Proposals for more than one layers in the DP:

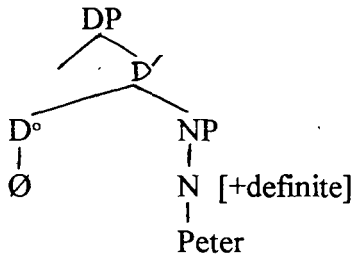
Of all the hypotheses offered by Abney what is mostly reacted upon is the proposal that the nominal functional head D selects a nominal maximal projection NP. Several analysts who work on the nominal structures give different proposals for justifying the need to introduce at least one more maximal projection in between DP and NP. The works reviewed in this section show that though there is not much unanimity about the identity of an intermediate node, all analysts argue in favour of the existence of such a projection between DP and NP.

1.2.1. Quantification and countability as a nominal functional category:

Loebel 1989:

Loebel 1989 argues that a functional category in the sense of Abney 1987 may be represented not only by overt morphological or lexical items, but also by means of inherent syntactic features. For example, the proper names contain the inherent feature [+ definite] as shown below :

(17)



It is assumed that this is why the proper names usually occur without a definite article, e.g.

(18) Peter Kommt
'Peter comes.'

Loebel claims that countability should also have the status of a functional category called Q. Her argument is based on the examination of

pseudopartitive constructions. This function may also be represented by an inherent syntactic feature [+ count] or by inflectional as well as lexical means such as plural suffix and quantifier or measure nouns respectively.

Loebel takes into account two types of constructions, partitives and pseudo-partitives as exemplified by the following pair of expressions in (19) below:

(19)

a. drei Liter von dem (roten) Wein	Partitive
three liters of the (red) wine	'three litres of red wine'
b. drei Liter Wein	Pseudo-partitive
two litre wine	'two litres of wine'
c. zwei Ø Bäum - e	
two Ø tree - pl	'two trees'

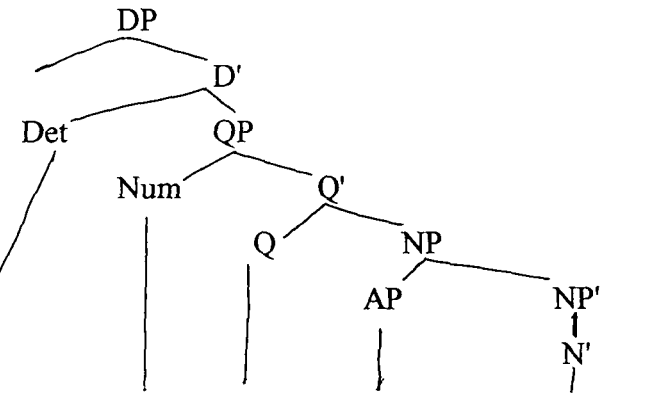
Since the syntactic relation between a functional category and its complement is f-selection, the NP complement in a partitive construction like (19a) above has a different status from the NP complement in a pseudopartitive construction like (19b). In the first case, the NP complement is a restrictive complement (in the sense of Jackendoff 1977), whereas in the second case the NP complement is an f-selected complement. She suggests that the relation between drei Liter "three litre" and Wein "wine" in (19b) and the relation between Zwei "two" and Bäume "trees" in (19c) is equal to the syntactic relation between the two items in the following :

(20) der Tisch
the table 'the table'

And, this relation is established by f-selection.

According to Loebel, the fact that quantifiers appear in between the DP and the NP implies that in the constructions involving quantifiers, Q is to be regarded as a syntactic head and not as an argument. If Q as a head can f-select an NP, the structure of the DP proposed by Loebel is the following :

(21)



(a)	die	drei	Ø	groBen	Bäum-e
	the	three	Ø	large	trees
(b)	die	drei	Stück	reifes	Obst
	the	three	piece	ripe	fruit
(c)	das			reife	Obst
	the			ripe	fruit
(d)	die	drei	Pfund	süBe	Kirschen
	the	three	pounds	sweet	cherries

In (21a) the category Q is lexically empty because Bäum "tree" has the feature [+ count] and the plural affix -e is the inflectional correlate to it. In (21b) Obst "fruit" is [-count] and it is stück "piece" which gives it countability by occupying the Q head. The category Q is not realised at all when there is no quantification involved – this is shown in (21c). In (21c) Obst "fruit" is constructed with the Singular i.e. it is syntactically treated as a noun in the singular. But this is not to be confused with the feature [± count]. We shall look into the distinction between the dimensions of number and countability in the fourth chapter, while dealing with the Bangla and Asamiya facts related to quantified nominals.

1.2.2. The syntax of classifier in DP: Tang 1990 :

The proposal to incorporate one more functional category between DP and NP is also made by Tang 1990, who works on Chinese nominal expressions which show a very significant difference from most of the western languages in the obligatory

presence of the classifier which cooccurs with numerals and demonstratives. Tang 1990 studies the structure of the Chinese noun phrase and supports Abney's opinion that a Determiner Phrase is required to demonstrate certain similarities between sentences and noun phrases. She posits a functional category 'Klassifier'(K) to explain why, in Chinese, demonstratives and numerals must cooccur with classifiers and to capture parallel relationships between CP-IP-VP at the sentential level and DP-KP-NP at the nominal level.

In Chinese, demonstratives and numerals by themselves cannot modify a head noun. This is shown below:

(22) a. *na shu
that book

b. na-ben shu
that-cl book 'that book'

c. *san shu
three book

d. san-ben shu
three-cl book 'three books'

e. *na san shu
that three book

f. na san-ben shu
that three-cl book 'those three books'

In an expression which contains a demonstrative, a numeral, a classifier and a head noun, the order of the items is fixed as (22f) above. All other orders are ill-formed. Besides, there are three facts which Tang has to account for. They are the following:

One, the classifier cannot occur without a demonstrative or a numeral, for example:

(23) a. shu
book 'books'

b. * ben shu
cl book

c. san-ben shu
three cl book 'those three books'

In (23) above, (a) shows that a bare noun is grammatical, (b) shows that a cl-N combination is ungrammatical and (c) shows that a prenominal numeral-classifier combination is grammatical.

Two, if a nominal construction contains both a demonstrative and a numeral, only one classifier is allowed before the head noun and the classifier will follow the numeral but not the demonstrative, for example,

(24) a. *na-ben san-ben shu
that-cl three-cl book

b. *na-ben san shu
that-cl three book

c. na san-ben shu
that three-cl book 'those three books'

Three, the classifier varies with different head nouns. For example, the Chinese noun shu "book" always takes the classifier ben whereas the noun ren "man" takes the classifier ge regularly. Alteration of this combination generates ungrammatical expressions, e.g. :

(25) a. na san-ben (*ge) shu
this three-cl book 'these three books'

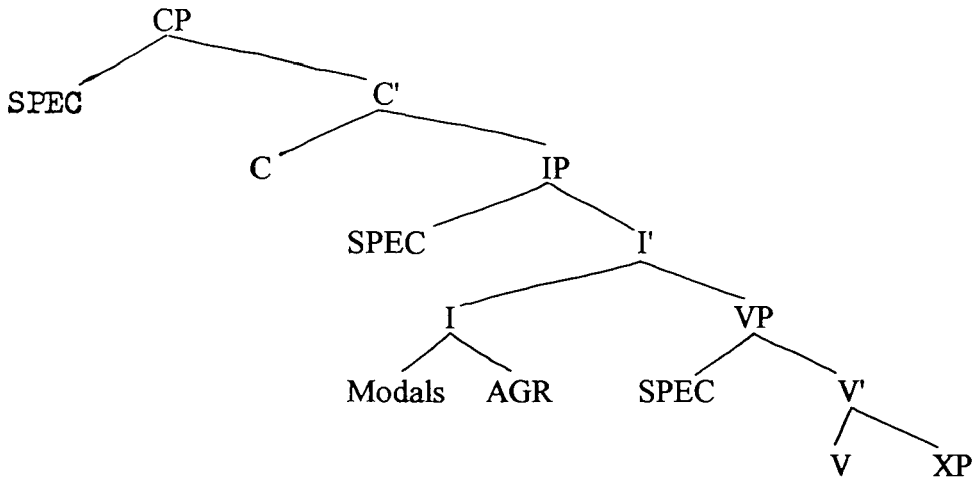
b. na san-ge (* ben) ren
this three-cl man 'these three men'

This leads to another question, why does the classifier, and not the demonstrative agree with the head noun? Although Tang looks at this selection of classifier and noun as a matter of agreement, in our treatment of a similar phenomenon in Bangla and Asamiya we do not treat this as agreement (see chapter four for details).

To account for the facts mentioned above, Tang shows that a functional category K, which stands for the "klassifier" morpheme is required. In her proposal

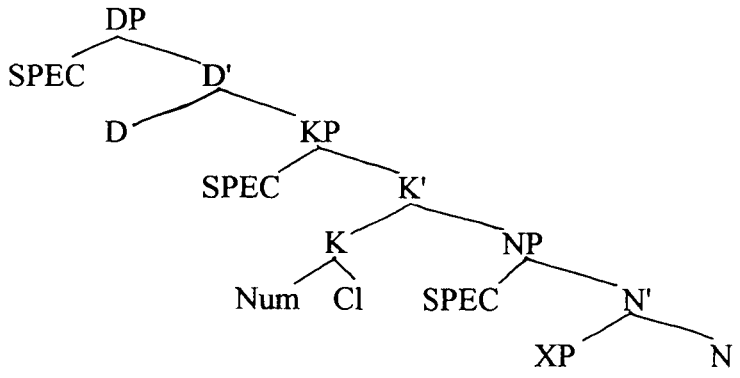
Tang agrees with Abney that the head of the nominal phrase is a D (determiner), but he deviates from him in that D takes the maximal projection of K as its complement and K itself takes an NP as its complement. In order to maintain parallelism between the structures of sentence and nominal phrase, Tang accepts the sentential configuration proposed by Chomsky(1986) :

(26)



She then examines Abney's proposal that there is a need for two distinct specifiers within the noun phrase, one for the possessor and the other for the measure phrase/quantifier phrase. As the Chinese facts do not match Abney's proposal, Tang disapproves the proposal that a measure phrase should/must appear in the Spec of NP. The structure that Tang proposes is the following:

(27)

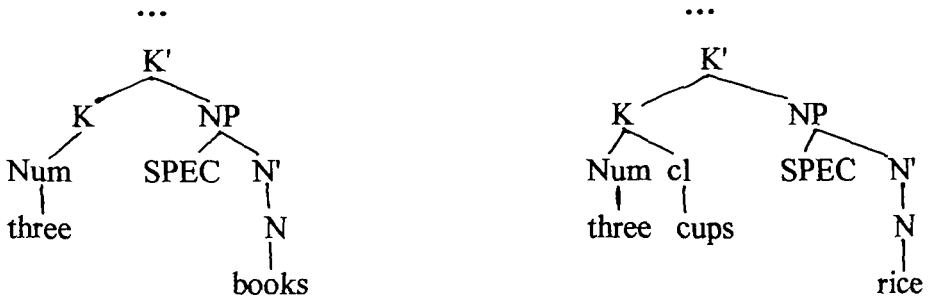


There are two significant similarities between the two structures shown in (26) and (27) above; first, both of them contain two functional projections (CP-IP and DP-KP) and one lexical projection (VP and NP) and the order of functional projections and

lexical projections are also the same; second, both the heads I and K contain lexical elements (i.e. modals and numerals) and agreement or agreement-like elements (i.e. AGR and classifier).

To address the issue of whether the proposed structure can be applied to languages like English, Tang suggests that since English nouns can be classified as countable or uncountable, the Cl under K can be kept optional. Therefore the following structures could be assigned to English phrases with countable and uncountable nouns :

(28) (i) DP ii) DP



In our study of Bangla and Asamiya nominals, we observe that a container noun like cup which combines with a numeral behaves mostly like a classifier. This is a specialty of a classifier-using language. Following Cheng and Sybesma 1998, we suggest in chapter four that all nouns in classifier languages are grammatically mass nouns and classifiers are used to obtain countability, just as the English noun rice (which is a mass noun both semantically and grammatically) is made countable with the help of a partitive construction with the inclusion of cup in quantification.

1.2.3. The syntax of Number in DP: Ritter 1991:

Abney's hypothesis that DP's D head takes a maximal projection NP as its complement is also modified by Ritter 1991 who proposes to postulate a functional projection NumP (Number Phrase) between DP and NP. The proposed NumP is the locus of number specification of a noun phrase. A three tier structure of the DP as

proposed by Ritter can account for at least three different facts of the syntax of Modern Hebrew noun phrases. They are the following:

(a) word order difference in genitive constructions

(b) differences between number and gender suffixes on nouns

(c) differences in the distribution of 1st and 2nd person pronouns on the one hand and 3rd person pronouns on the other.

Ritter 1991 suggests that modern Hebrew allows short movements of N to an intermediate head position (specified as Num) and also the long movement of N to D. She considers two kinds of genitive structures. Of them the first one is the construct state noun phrase in a DP whose head is a phonetically null genitive case assigning element; it is a definite noun phrase with the order possessed noun-definite article-possessor. Among the examples below, (b) is a construct state noun phrase.

(29)

a. ha -mixtav
   the letter 'the letter'

b. mixtav ha- mora
   letter the- teacher 'the teacher's letter'

c *ha - mixtav ha-mora
   the letter the-teacher

d*. ha - mixtav mora
   the letter teacher

Ritter explains the ungrammaticality of constructions like (29c) and (29d) by saying that a movement of N to D licenses the null head and derives the surface word order (29b).

The second type of genitive structure considered by Ritter is called "free genitive constructions". In such a structure, the definite article ha- appears in the initial position and the subject bears an overt genitive case marker Sel (to use capital S for a palato-alveolar) e.g.:

(30) ha- axila Sel dan et ha - tapuax
   the eating of Dan OM the apple 'Dan's eating of the apple'

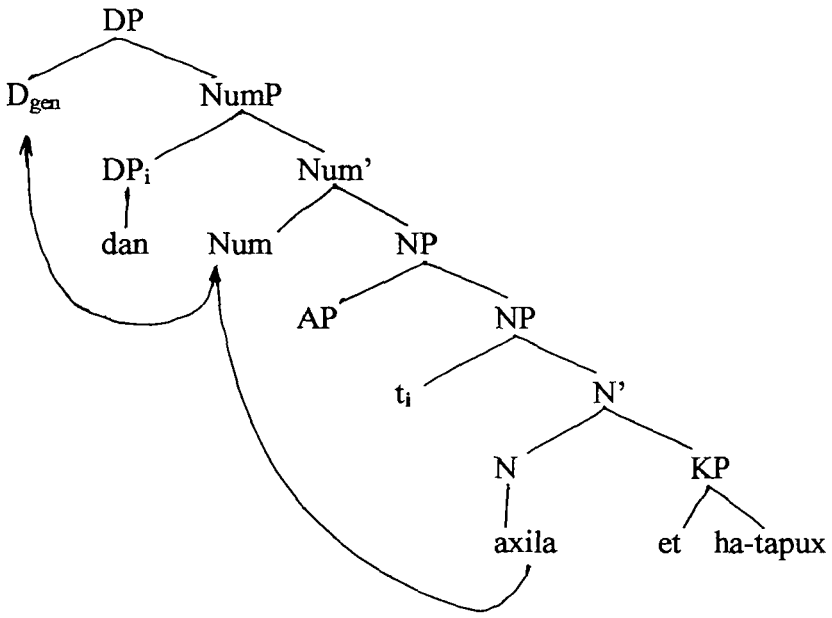
This free genitive structure has a variant in the construct state which is as follows:

(31) axilat dan et ha - tapuax

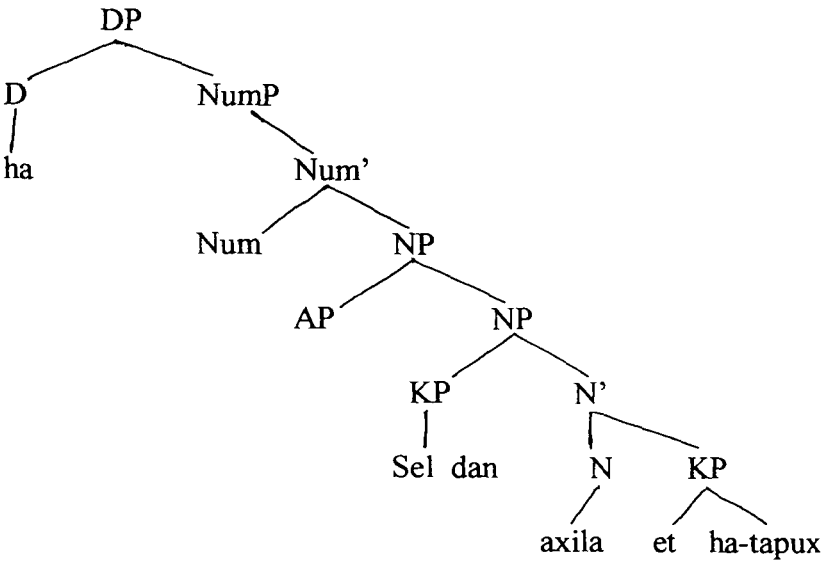
eating Dan OM the apple 'Dan's eating of the apple'

Ritter argues that the differences between the construct state and free genitive construction are superficial and are due to a difference in genitive case-assignment strategy applied to the subject of the noun phrase. The following DP structures proposed by Ritter explain the difference:

(32)



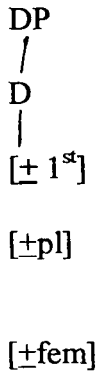
(33)



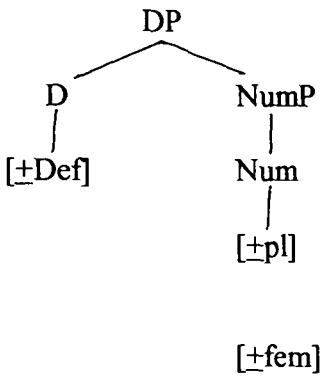
Ritter shows that the functional projection Num which bears the number specification of the DP also helps account for the difference between plural suffixes and feminine suffixes in Hebrew. She accepts the standard assumption (following Anderson 1982) that there is a distinction between inflectional affixes and derivational affixes. She also subscribes to the view that derivational affixes are attached to a lexical stem in the lexical component prior to d-structure and inflectional affixes are attached to the lexical stem in the syntactic component, as a consequence of a syntactic movement, especially head movement. This means that the (inflectional) affixes that are attached in the syntactic component must be heads of syntactic projections. It follows that as far as the Hebrew nouns are concerned number is an inflectional affix whereas gender, particularly feminine, is a derivational affix. That is why the number of a Hebrew noun phrase is realised as the head of a syntactic category.

Ritter offers further modifications of Abney 1987 while working on the pronouns. She does not extend the distribution of phi-features among the various heads to the pronouns as pronouns do not have an NP-projection. Abney holds that pronouns are Ds with specification for person, number and gender features. Ritter's hypothesis that there are two distinct functional categories D and Num implies that there are two classes of pronouns. First and second person pronouns are DPs whose heads are specified for person, number and gender (see (34a) below) and the third person pronouns (mainly the non-person pronouns) have a rather complex structure where D is specified for definiteness and Num is specified for number and gender.

(34) a. $1^{st}/2^{nd}$ person



b. 3^{rd}/non-person



Thus, there are two kinds of pronouns - 1st and 2nd person pronouns which contain only the DP projection and the third person pronouns which contain both functional projections DP and NumP.

Ritter's work implicitly assumes that different noun phrases may contain different functional categories, but their hierarchical organization is fixed. The inventory and hierarchy of phi-features is also determined by the interaction of UG and language specific considerations. The feature hierarchy suggested by the investigation of Hebrew noun phrases is (case >) person> number > gender. This implies that the possible syntactic categories that would make up a nominal construction and their hierarchical organisation are determined by Universal Grammar but the projections in any given DP and their feature specification depend on considerations that vary from one class to the other and from one language to the other. However, Ritter does not consider the possibility of the absence of Number dimension in a particular language. In our study, we show that classifier languages do not manifest number and gender dimensions as grammatical categories.

1.2.4. Dealing with a postnominal item: Santelmann 1993:

One of our tasks will be to account for a definite reading while a classifier occurs in a postnominal environment in Bangla and Asamiya. In chapter two and three we will see that earlier grammarians describe the classifier as a definite article since its postnominal occurrence gives a definite reading. Though we assume that the classifier is essentially distinct from the article, we need to present case studies dealing with the article, especially a postnominal one. We need to understand why in a classifier language the article is totally absent. It is in that context we review Santelmann 1993. This work looks at the distribution of the double definiteness construction in Swedish where a definite noun phrase appears with two articles: a prenominal definite article and a postnominal suffixal definite article. He argues that the pre-nominal article is inserted to support features in D° only when the head noun and the suffixal article cannot raise into D° and support D°. There are three contexts when the head noun cannot raise to D° : (a) emphatic expressions, where the suffixal

article cannot support the emphasis at PF; (b) with pre-nominal adjectives, when N° remains in situ to license adjectival inflection and (c) where there is an intervening head that prevents the head noun from raising to D°.

Swedish has two elements which are classified as determiners. The first one is a suffixal, post-nominal determiner, e.g.

(35)

a. bil - en		b. billar - na	
car the	'the car'	cars - the	'the cars'.

The second element is pre-nominal and may occur even when the suffixal determiner is also present, in constructions such as one involving an attributive adjective, e.g.

(36)

a. den stora bil - en	
the big car - the	'the big car'
b. de nya bilar - na	
the new cars - the	'the new cars'

Santelmann feels that for the above constructions the DP structure proposed by Abney 1987 and expanded by Ritter 1991 and others are not sufficient to account for the cooccurrence of two determiner-like elements and also to understand their distribution since there are restrictions regarding them. Double determination is available in Swedish in the following environments:

(a) when there is an adjective in the noun phrase; for example the expressions in (36) above. The expression will be ungrammatical if either determiner is dropped, e.g.

(37)

a. *den stora bil	b. * stora bil en
the big car	big car the

(b) In the presence of numerals and weak quantifiers; e.g.

(38) a. de många bilar na

the many cars- the 'many cars' (def)

b. de tre bilar na
the three cars the 'the three cars'

(c) in some demonstrative expressions, e.g.

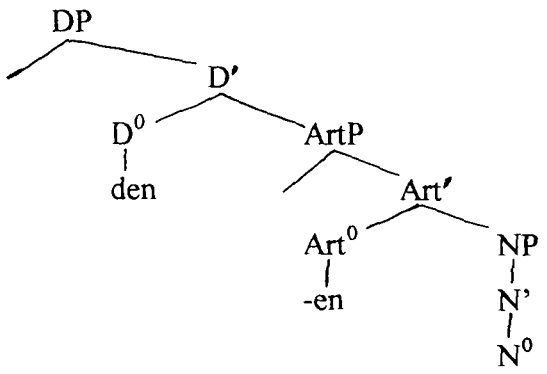
(39) a. den här bil - en 'this car'
the here car - the

b. den där bil - en 'that car'
the there car - the

Double determination is restricted in Swedish in certain environments. The suffixal determiner cannot cooccur with the indefinite determiner, with possessives, with some demonstratives and with restrictive relative clauses. The prenominal determiner cannot cooccur with the possessives, with the post nominal arguments or modifiers and with some attributive adjectives. The phrase acquires an emphatic meaning if the determiner appears in the presence of a post-nominal complement.

To settle the issue of headship in Swedish DP, Santelmann argues that it cannot be assumed that both den and en are in D° since they are not in complementary distribution. This means there is a need for selecting either den or en as the head of DP, i.e. D°. With the support of two facts, that Swedish is generally left headed and that positing den in D° gives scope for placing -en in a lower position in the structure, he proposes an extended DP structure for Swedish. Having taken the option of an additional functional category between DP and NP as proposed by Valois 1991, Ritter 1991, Giusti 1993 and others, Santelmann proposes that the suffixal article –en is located in the head of an intermediate phrase Art P and den is generated at D° .The structure is the following:

(40)



Two more assumptions are made for the above analysis: one, the features for definiteness are located in D° and they are, in the sense of Chomsky 1991, strong features which need to be attached to a lexical head (as strong INFL features need to be supported by a lexical verbal head); these features are satisfied either by raising of the noun by insertion of an item into D° ; two, adjectives are N' modifiers and not heads.

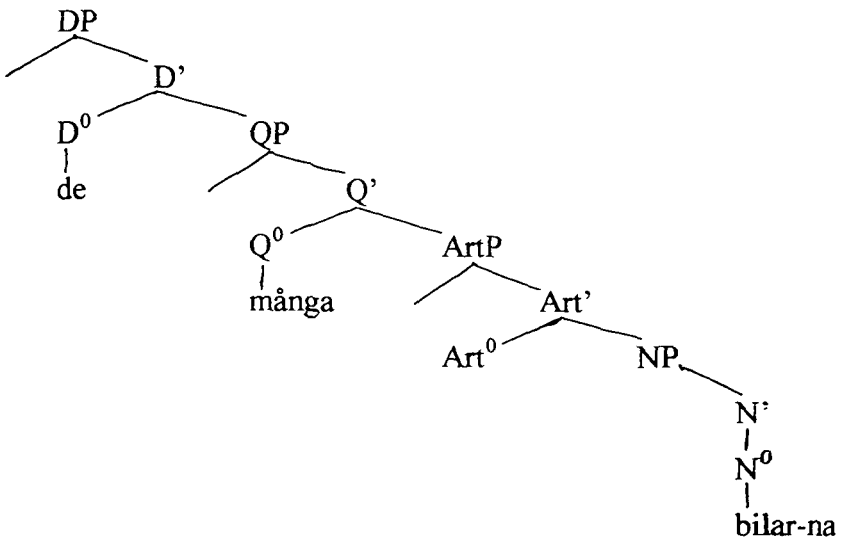
To account for the fact that numerals and weak quantifiers also trigger double determination (cf. data in (38) above) Santelmann argues that these elements are the heads of a QP category below DP but above Art P. The evidence for such a position is drawn from the fact that numerals and weak quantifiers cannot co-occur, e.g.

(41)

a. de många bilar-na
   the many cars - the
b. de fyra böcker- na
   the four books-the
c*.de moye fyra böcker- na
   the many four books - the

It is also important to note that they do not show any agreement morphology and they always precede attributive adjectives. They block noun raising to D° and need den to support the features of D° because head movement of the noun is blocked by elements occupying an intervening head. the structure is the following:

(42)



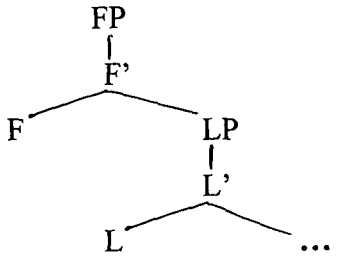
As regards the double determination in the demonstrative expressions (see,(iii)above) Santelmann (takes the same position as traditional grammarians and) treats den här "the-here" 'this' and den där "the there" 'that' as single lexical items which are inserted in D°. It completes the argument that double determination occurs in the contexts that require den-support to D° for the satisfaction of strong definiteness features of Swedish DPs. We are not aware if Santelmann revised his analysis later on following Giusti 1994 who argues that demonstratives are base-generated in a specifier position and D can be occupied only by an article.

1.3. The relation between lexical and functional projections: Grimshaw 1991

Grimshaw 1991 offers a version of the theory of phrase structure where she extends the standard principles of x-bar theory to the elements such as determiners and complementisers. She takes into account three steps in the development of the theory of phrase structure since Jackendoff 1977. They are the following:
(a) Recognition of the fact that elements belonging to the minor syntactic categories like complementiser, determiner and also some bound morphemes like inflection are zero level categories for x-bar theory and they head their own projections;
(b) Division of the syntactic categories into two groups - the lexical categories and the functional categories;
(c) Development of the hypothesis that the lexical categories and their projections occur within the functional projection as complements to functional heads.

In her analysis, Grimshaw assumes that the head of an expression composed of the functional head (f-head) and lexical head (l-head) along with their projections is not lexical but functional. An f-head, then, is a complement-taking item, just as the l-head. In other words, each zero level category heads a maximal projection and every head takes a complement. This is shown in the following structure:

(43)



The functional head hypothesis gives good results in the area of clause structure as well as the structure of the nominal system. Since the theory posits heads and projections of two different kinds, the immediate task is to find out what combinations of f-heads and l-heads are possible. It is in this context that Grimshaw proposes that a proper subset of the logically possible combinations have a special property: they form "extended projections". The notion of extended projection is based on the hypothesis that N and D in the nominal structure have the same categorial features but they are different in the sense that N is lexical whereas D is functional. A similar relation exists between V and I also. Once it is seen that N is similar to D and V is similar to I in their respective categorial features, there is a need to distinguish them from each other. She abides by the feature specification proposed by Chomsky 1970 where N and D are [-V + N] and V and I are [+V, -N]. She shows that N and V are different from D and I respectively in their functional status.

Grimshaw posits the functional feature (F) and assigns (F1) to the functional category and (F0) to the lexical category. The value of F is independent of its categorial specifications for the following reasons: (a) the value of (F) plays a role in the formation of extended projections which is distinct from the role played by the categorial features; (b) (F) is not a binary feature; (c) (F) does not interact with the categorial features - it is cross categorial. She emphasises that the (F) feature has similarity with the X-bar theoretic level value which distinguishes X" from X' and from X°.

The idea of extended projection is based on the categorial theory and implies that a functional category is a relational entity: its relationship to a lexical category is crucial for its existence. Hence DP should be demarcated not just as a functional

category, but as a functional category for N. Similarly, IP is a functional category for V.

On the basis of the analysis of syntactic categories in Bresnan 1982, Grimshaw shows that in Extended Projection there are three specification levels of nodes: (a) category specification, (b) level specification and (c) lexical/functional specification. A comparison of nodes is as follows:

(44)

	The node	Category features	Level features	Lexical/functional features
a.	V	+V - N	L0	F0
	V'	+V - N	L1	F0
	VP	+V - N	L2	F0
b.	I	+V - N	L0	F1
	I'	+V - N	L1	F1
	IP	+V - N	L2	F1
c.	N	-V + N	L0	F0
	N'	-V + N	L1	F0
	NP	-V + N	L2	F0
d.	D	-V + N	L0	F1
	D'	-V + N	L1	F1
	DP	-V + N	L2	F1

With the help of this three level feature distinctions, Grimshaw develops definitions for 'unextended (perfect) head/projection and extended head/ projection. The definition of unextended or perfect head/projection is the following:

(45i) X is the perfect head of Y and Y is the perfect projection of X iff:

(a) Y dominates X

(b) Y and X share all categorial features.

(c) All nodes intervening between X and Y share all categorial features.

(d) F value of X is the same as F value of Y.

In the context of DPs and NPs, according to this definition, DP is a projection of D' and D; it shares its categorial and functional features with them, but not with N, N' and NP, which share only the categorial features with it.

Grimshaw's definition of extended head and extended projection is follows:

(45ii) X is the extended head of Y and Y is the extended projection of X iff:
(a) Y dominates X
(b) X and Y share all categorial features.
(c) All nodes intervening between X and Y share all categorial features.
(d) If X and Y are not in the same perfect projection, the F value of Y is higher than F value of X. Where N intervenes between X and Y if Y dominates X and N, N dominates X but does not dominate Y.

It is to be mentioned especially that only the complements participate in extended projections, specifiers do not. It may be because of the requirement that all maximal projections intervening between X and Y are complements.

Our study in the later chapters include the relation between two items, the N and the Q. Though the earlier grammarians treat the occupants of Q (such as quantifiers and classifiers) as modifiers of the noun, their syntactic relation can best be understood with the help of the notion of extended projection. By accepting as well as using Riemsdijk's (1997, 1998) proposals for our analysis, we also happen to accept the basic ideas developed in Grimshaw 1991.

1.4. Distribution of heads and modifiers in DP: Giusti's work:

Grimshaw's distribution of heads and projections in the DP can be appreciated better with the help of Giusti 1994 who determines the categorial status of the determiners. Her work starts with the assumption that as the verb builds a lexical projection VP which reflects its argument structure and then projects a functional

structure including AgrOP, TP, AgrSP etc, the noun also builds a lexical projection NP which reflects its argument structure and then projects a functional structure including some functional heads. This assumption is based on Grimshaw's (1991) idea that functional categories are projected by the inflectional properties of the lexical head in a relationship of extended projection. Giusti 1994 considers the cases of determiners namely articles, demonstratives and quantifiers. She examines the contemporary assumption that these three prenominal elements occupy the D^{o} position since they belong to the category of determiners. The evidence in favour of this view is usually drawn from English, where the demonstrative, the article and the quantifier are apparently in complementary distribution in the first position in a nominal string, e.g.,

(46) these/the/many students.

But Giusti's principal argument is that they do not constitute a homogeneous class.

1.4.1. Articles:

Giusti 1994 considers the articles in the universal perspective and argues for the following points:

(a) articles form a closed class.

(b) articles are phonologically and morphologically dependent on the noun or other nominal elements.

(c) they are structurally inseparable from their complement.

(d) they have no semantic value, and

(e) they are the extended nominal heads in the sense of Grimshaw 1991.

The fact that the article can cooccur with adjectives, prepositions and other nominal modifiers is an evidence for its status as a functional head. This is under the assumption that nominal modifiers project their own extended projection which may be identical to the nominal projection. Giusti gives evidence from Hebrew where the adjectives are preceded by a definite article which is the same as the one preceding the noun:

(47) ha- bayit ha- gadol

the- house the- big 'the big house'

She draws further evidence for the functional (syntactic) nature of the (definite) article from a contrast between Rumanian and Italian masculine-singular form of indefinite quantifiers.

In general, articles are different from the demonstratives and quantifiers on the following grounds :

(a) articles are not inserted on semantic grounds

(b) they do not have a straightforward distribution across languages

(c) record of previous stages of development in Indo-European languages show that articles have developed at some intermediate stage to compensate the loss of the inflectional morphology of noun and/or adjectives.

Giusti 1994 shows that the article and the demonstrative cannot occupy the same position because they cooccur in a language like Rumanian. Rumanian has two types of constructions. In the first type, a phrase initial demonstrative is in complementary distribution with an article, e.g.,

(48)

a) acest/acel (frumos) baiat (frumos)

this that (nice) boy (nice)

b)** a cestul baiat

this-the boy

c)**acest baiatul

this boy-the

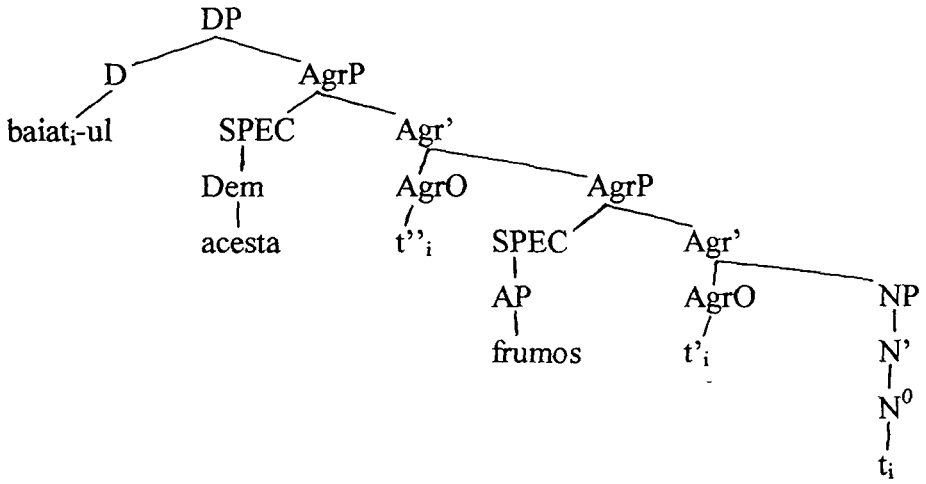
But in a second type, a phrase initial N is inflected with the enclitic definite article whereas the demonstrative is in the second position, e.g.

(49) baiatul acesta /acela (frumos)

boy-the this A/that A (nice).

The DP structure proposed by Giusti 1994 for the above expression is the following:

(50)



In this configuration, N travels to D° through Agr°s and adjoins the article which occupies the D°. Dem and AP are in the specifiers of AgrPs.

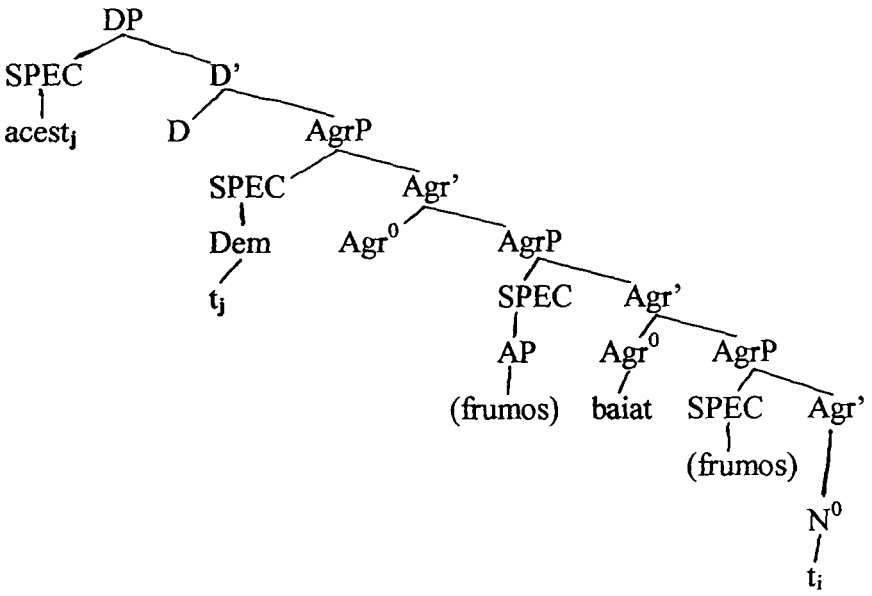
Giusti 1995 insists that the only candidate for the head of DP is the article, which always belongs to a closed class. With support from Grimshaw 1991 and Szabolcsi 1994, Giusti 1995 feels that CP and DP are parallel in saturating a predicate (VP or NP) by turning it into an argument. Besides, in some languages, both CP and DP seem to be under restriction regarding 'doubly-filled COMP/DP filter' which means though they have two positions -- a specifier and a head, only one needs to be filled. With emphasis on D being instantiated for syntactic reasons, she argues that articles must be inserted to instantiate DP when nothing else is inserted in this projection. But there are cases such as the PPs in Rumanian where the D head is allowed to be null and the article cannot be inserted. She has shown that insertion of an article in D allows the Spec of a lower projection to be filled.

Giusti's standards of judging the articles help us determine that the classifiers in Bangla and Asamiya cannot be analysed as equivalents of articles. We will see in chapter two that earlier grammarians described classifiers as equivalents of English the. We would discard such a view in our analysis mainly because we observe that classifiers are mostly meaning-sensitive.

1.4.2. Demonstratives:

To provide a unified analysis of the demonstrative in two different types of constructions, Giusti assumes that in the first case, the demonstrative has moved to the highest specifier, i.e. the [SPEC, DP]:

(51)



Giusti proposes that the movement of demonstrative to Spec, DP allows the licensing of enough features of the whole projection and as a result no article needs to be inserted in D°. This explains the complementary distribution of demonstrative with articles in the first type of constructions.

Giusti 1994 explains two crucial issues: (a) an element in SPEC, DP is in complementary distribution with the article in D° in some languages and (b) the motivation for optional/obligatory movement of the demonstrative and its original slot. To address the first issue, she refers to the "doubly-filled COMP filter" of Chomsky and Lasnik 1979 and argues that since DP and CP have similarity in terms of being the topmost extended projections of noun phrase and clause respectively, the conditions on cooccurrence of lexical items in SPEC and in head should be similar. She argues that if an element in SPEC makes some relevant features morphologically

visible, the corresponding head in agreement will be empty and if the relevant features are not morphologically visible, the relevant head must be inserted for the proper interpretation of the projection in the LF. So far as the second issue is concerned, Giusti argues that languages vary regarding the level from which the demonstrative starts its movement towards SPEC, DP. However, the demonstrative is base-generated in a specifier, which is lower than the article.

Among other issues related to the demonstrative, discussed in Giusti 1994, the following are of importance for our study:

(a) Demonstratives have a semantic value, through they are similar to articles regarding the lack of descriptive content. They are crucial for the interpretation of the referential index of the noun phrase.

(b) Demonstratives are neither phonologically nor morphologically dependent. (This may not be universal. According to our observation, they are partially dependent in some languages, like Asamiya and Bangla.)

(c) In the languages that lack articles, demonstratives are similar to adjectives.

Giusti, however, leaves open the issue of categorial specification of the demonstratives. She indicates two options; one, they belong to a new category Indexical; two, they are Adjectives as they are modifiers of the noun. Each option insists that demonstratives not be in D^0 unlike articles.

Regarding the demonstratives, Giusti 1995 shows that though in English they are in complementary distribution with the articles, many languages which are not related to each other show demonstrative-article cooccurrence, for example:

(52)

a. autds δ anēr	Greek
this the man	
b. ika n' anak	Javanese
this the boy	
c. ez a haz	Hungarian
this the house.	

Here the order is Dem-Art-N. These three elements can be in other orders too, e.g.,

(53)

a.	toj covek - ot this man - the	dem - N + Art	Macedonian
b.	pana wig jainan the way this	Art - N - Dem	Gothic
c.	omul acesta man-the this	N + Art - Dem	Rumanian

Giusti 1995 argues that this variation in word order is parallel to the one displayed in the position of adjectives which may appear pre-nominally or post-nominally in various languages. Her assumption is that in the languages where the demonstratives co-occur with the determiners, they are adjectives. The languages where they may or may not co-occur with the article, for example in Rumanian, the demonstrative is in the Spec of AgrP. Rumanian is different from English in that the demonstrative is in Spec of DP in English.

We adopt Giusti's points in our study of demonstrative-classifier combinations in Bangla and Asamiya in chapter five.

1.4.3. Quantifiers:

The primary assumption about quantifiers in Giusti 1994 is that they are different from the demonstratives. She divides quantifiers into three different classes at the level of description. They are : a) those that precede articles b) those that follow articles and c) those that neither precede nor follow articles. The first type is external to the DP, they are heads projected as QPs and complemented by DPs. The second type, which are preceded by a determiner, are adjectives in a higher specifier (SPEC,AgrP). Following the criteria of Abney 1987, to judge the lexical/functional nature of elements, Giusti 1994 argues that the quantifiers are not functional heads, they are lexical categories. The following are her main arguments:

(a) Quantifiers do not form a closed class since in a language like Italian it is possible to make new quantifiers from descriptive adjectives.
(b) Quantifiers are neither phonologically nor morphologically dependent on the noun.
(c) Quantifiers are not inseparable from their complement.

Finally, quantifiers are different from both articles and demonstratives. They are neither in D^0 nor in SPEC, DP.

Giusti 1995 works in the same line of argument as in Giusti 1994. With evidence from Romanian, she shows that the term 'determiner' generally applied to four nominal elements namely quantifier, article, demonstrative and possessive, obscures the important distinctions regarding both the categorial status and the structural position of these elements. She maintains that there are two types of quantifiers - universal quantifiers and quantificational adjectives. The categorial status of a quantified nominal is QP and Q embeds a DP, a nominal projection. The quantifiers preceded by D are inside the DP, they are like adjectives. The structure obtained by her is the following:

(54)

$$[QP\ [_{Q'}\ Q^0 \qquad [\,DP\ [_{D'}\ D^0\ [_{AgrP}\ QP\ [_{Agr'}\ \ldots\ N^0\,]\,]\,]\,]\,]\,]$$

For the possessive, Giusti 1995 proposes that it is in SPEC, AgrP when it co-occurs with the article and in SPEC, DP when it is in complementary distribution with the article. The possessive cannot precede the article due to the 'doubly-filled DP-filter' (discussed above). The difference in distribution of the possessive in various languages can be explained in terms of its movement to SPEC, DP or SPEC, AgrP.

When Giusti 1994 proposes that the quantifiers are not functional heads but lexical categories, the only distinction she is aware of is that of Abney 1987 who distinguishes between lexical and functional categories. In our study, we see quantifiers mainly as semilexical categories, which means they are partly lexical and

partly functional. This takes care of the fact that they have lexical elements in them, which Giusti also acknowledges. But we cannot accept her view that they are not at all functional. Languages studied by us consist of data to illustrate that quantifiers have functional elements in them.

1.5. More on demonstratives and movements within DP: Bernstein 1997:

Once the phrase structure of the DP is more or less decided upon and it becomes agreeable that there is at least one intermediate node between the DP and the NP, there seems to be a trend in showing that word order variations in Romance and Germanic languages are results of overt or covert movements of items. Bernstein 1997, while examining constructions that involve demonstrative and reinforcer elements, argues that prenominal deictic demonstratives in Romance and Germanic languages are generated in a specifier position below DP and they raise to D overtly. This analysis is in the same line with Giusti 1994. In some languages, where a demonstrative shows two possible interpretations namely a deictic and an indefinite specific, the first one raises upto the DP projection overtly and for the second one, only covert feature movement to D takes place. Demonstrative reinforcement constructions in Germanic are different from those in Romance. In Germanic, both the demonstrative and its reinforcer precede the noun whereas in Romance the demonstrative precedes the noun and the reinforcer follows the noun. Bernstein 1997 assumes that the demonstrative and its reinforcer are base-generated as the specifier and head respectively of a functional projection FP. She argues that in Romance, there is a syntactic movement of a phrasal category to the left of FP which derives the postnominal position of the reinforcer. This movement is absent in Germanic.

Bernstein 1997 first deals with the general nature of the demonstratives and its structural representation. She subscribes to the view established in standard literature on the demonstrative that it is distinct from the definite article and they do not correspond to the same structural position. There are three arguments in distinguishing the demonstratives from the definite article: first, the two elements can cooccur in many languages; second, the demonstrative can stand on its own but the

definite article cannot; third, the demonstrative is adjectival in nature in some languages where they show the full range of adjectival inflection having occupied the position of adjectives.

Bernstein 1997 shows that the reinforcer is dependent on the demonstrative but it is not the other way around. To express this relationship syntactically, she postulates that in both Germanic and Romance the demonstrative-reinforcer combination is base-generated prenominally as a complex syntactic unit - the specifier and head respectively, of an FP. She suggests that in a language like French the constructions with demonstrative-Noun-reinforcer order could be due to the head movement (left adjoining) of N to the reinforcer. But further evidence show that it is an XP and not an X^O which raises and adjoins to a position between the demonstrative and the reinforcer. She considers the following examples from French:

(55)

a. ce livre jaune ci
   this book yellow here 'this yellow book'

b. cette femme intelligente ci
   this woman intelligent here 'this intelligent woman'.

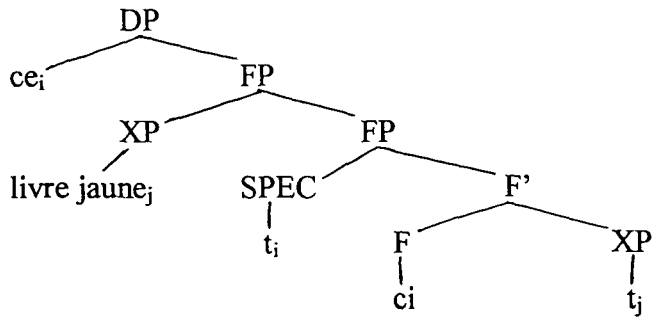
Here the reinforcer ci follows both the noun and the postnominal adjective. As a (noun+adjective) combination cannot be regarded as a complex syntactic head, the better explanation is that the noun livre has crossed over the adjoined adjective jaune on its way to the Num(ber)^O position, which is the locus of number agreement of the noun. The configuration is the following:

(56)

... [$_{NumP}$ [$_{Num'}$ livre$_i$] [$_{NP}$ [$_{AP}$ jaune] [$_{NP}$ t_i]]]
book yellow

Subsequently, livre jaune as an XP, moves to the SPEC of FP and the deictic demonstrative ce moves to the SPEC, DP. The process is shown below:

(57)



This XP movement available in Romance is not allowed in Germanic languages.

Bernstein proposes that the XP movement is related to the morphological properties of the head of FP - the head which is occupied by the reinforcer. The reinforcer in a language like French contains a strong feature that must be checked, triggering overt leftward movement of the XP which contains the NP and its modifiers. Languages like Spanish and Catalan, which lack the French type of reinforcers, also have a strong F with the demonstrative. This strong F seems to be responsible for the overt raising of the NP and its modifiers to the left of FP, thus deriving the post-nominal position of demonstratives. It is supplemented by an additional requirement that D should be lexically filled with the definite article. There is no such movement in Germanic languages because there F is not strong, which accounts for the prenominal position of reinforcers across them.

Bernstein 1997 is relevant for us in deciding that the demonstrative is in a specifier position and not in a head. The Indic languages which we study do not have reinforcers to go with the demonstrative though all the classifiers in Asamiya (and one in Bangla) can combine with the demonstrative. However, the role of classifiers in these cases are not like the reinforcers in French, Spanish or Catalan. We discuss this in detail in chapter five.

1.6. A different version of extended projection : Riemsdijk's work:

Riemsdijk (1990,1997,1998) develops the notion of "extended projection" in a way that is different from Grimshaw 1991. To account for the internal coherence of a phrase, he proposes two modifications to the notion of 'extended projection': Firstly, there exists a functionality level between the lexical and functional heads, which can be called a semi-lexical level. He argues that the Dutch direct partitive constructions as discussed in Vos 1999 and German restrictive appositive constructions involve semilexical heads. He shows that as syntactic nodes connecting the lexical and functional heads within an extended projection with the phrasal nodes have the same category, the semilexical nodes also have the same category. In short, the lexical, semilexical and functional heads within an extended projection have categorial identity. Secondly, to account for the fact that prepositional elements are often inserted within an extended projection, Riemsdijk suggests that it is the positive categorial feature value whose mutual attraction is responsible for the internal cohesion of the phrases. The preposition remains a neutral element because it carries negative value for both the categories.

The version of x-bar theory that Riemsdijk 1990 offers is similar to that of Grimshaw 1991 in the sense that categorial identity plays an important role in both. But Riemsdijk differs from Grimshaw in giving up the notion of perfect (non-extended) projection. He assumes that there should be no maximal projections inside a projection. Whereas Grimshaw maintains that every type of head has full bi-unique relation between head and projection, Riemsdijk suggests that the biuniqueness is only at the level of lexical heads, which means there is only one lexical head in a projection and the rest are functional projections.

Riemsdijk agrees with Grimshaw that the three subsets of features that characterize the heads and projection nodes are categorial features or C-features, level features or L-features and functionality features or F-features. Regarding the level

features, however, he accepts the binary features - Maximal and Projected as proposed in Muysken 1983. The tentative feature system of Riemsdijk is the following :

(58)

C-features : [+/- N], [+/- V]

[+N, -V] = N, D, Q...

[-N, +V] = V, I, AGR....

[+N, +V] = A, DEG...

[-N, -V] = P, FP

L-features: [+/- PROJ, +/- MAX]

[-PROJ, - MAX] = Head (H^0)

[+PROJ, - MAX] = Intermediate node (H')

[+PROJ, + MAX] = Maximum Projection (HP or H^{max})

[-PROJ, + MAX] = Unprojected particles.

F-features: [±F] [- F] = lexical node

[+ F] = functional node.

The above feature system is to work in accordance with the following welformedness conditions :

(59)

a. Categorial Identity Thesis(CIT): Within a projection the values for the c-features must be uniform.

b. No value reversal condition (NVR):

The following relation holds within a projection

*[-L/F]

|

[+L/F]

c. All phrases are maximal (PAM).

With the help of the above, Riemsdijk presents the idea of maximal projection in the following way:

(60)

An M-projection is the maximal (vertical) path through a tree such that that path satisfies the wellformedness conditions CIT and NVR.

It is to be noted that here M stands for both 'maximal' and 'minimal'. The dependents of M-projections are the following:

(61)

a. a specifier if it entertains an agreement relation with a functional head of M

b. a complement if it is θ-identified (theta identified) by the lexical head of M.

c. an adjunct in all other cases.

To argue in favour of the existence of semilexical heads within a noun phrase, Riemsdijk draws evidence from Dutch Direct Partitive Constructions (DPCs). In a DPC, two nouns (say N_1 and N_2) in partitive relation are juxtaposed and there is neither a genitive case marker nor a preposition intervening between them, for example,

(62) een plak kaas (Dutch)
a slice bread
det N1 N2

Note that here N2 is not a complement of N1. A direct partitive construction is different from an indirect partitive construction where there is a preposition or a genitive marker between N1 and N2, for example,

(63) een bus met toeristen
a bus with tourists
Det N1 Prep N2

Among the six subtypes of N1 as analysed by Vos 1999 (discussed separately in this chapter), Riemsdijk suggests that Quantifier Nouns and some Measure Nouns are truly functional as they constitute a closed class. The rest of the measure nouns along with other four subtypes (Container Nouns, Partitive Nouns, Collective Nouns and

Kind Nouns are a semi-open class). In the light of above findings, the F-features of the noun phrase elements are distributed as follows by Riemsdijk 1998:

(64)

F-features:	[+/- F(unctional)]	
	[+/- Grammatical]	
[+ F, + G]	=	Functional projection
[-- F, --G]	=	Lexical head
[+ F,--G]	=	Semi-lexical heads
[-- F, +G]	=	Quantificational nouns.

As the constructions involving N1 and N2 are considered to have constituted single extended projections, they abide by the Categorial Identity Thesis (CIT). Riemsdijk observes that any instances of N1 are similar to the nominal classifiers found in many non-Indo-European languages. Treating N1 as a semi-lexical nominal head or as a light noun gives the scope to account for its dual nature: it shows the symptoms of a functional projection, but at the same time it constitutes a somewhat open class. The example of this dual nature is available in the Asamiya semi-lexical nouns which we discuss in chapter five.

1.7. Semilexical nouns within the DP: VOS 1999:

Vos 1999 deals with quantificational noun phrases in Dutch, German and Spanish. She divides the quantificational phrases into two main types: Direct Partitive Constructions (DPCs) and Indirect Partitive Constructions (IPCs). Her observations on the first type will be relevant for this work. A DPC contains two nouns - N1 and N2. N1 precedes N2 in a linear order. Her opinion is that N2 is the semantic head of a DPC and either N1 or N2 is the syntactic head. N1 denotes a quantity or an amount; it has a referential feature. The features of N2 determine the spell-out of the inflectional features of the verb. The semantic features of the verb also correspond to those of N2. She claims that a DPC is an extended nominal projection where N1 and N2 are part of one single extended nominal projection. She calls this a macro-N-

projection. A functional nominal element such as a determiner or a cardinal numeral and the quantificational adjectives cannot occur on the projection line from N2 to N1.

Vos 1999 proposes that there are six subtypes of N1s which are as follows:

(65)

i. Quantifier Nouns (QNs) ii. Measure Nouns (MNs)

iii. Container Nouns (ConNs) iv. Collective Nouns (CoINs)

v. Part Nouns (PartNs) vi. Kind Nouns (KindNs)

This division is based on a division of arrangement quanta in Allan 1977.

Among the six subtypes, some Ns behave like regular Ns and participate in pluralisation, diminutive and compound formation - they are called lexical Ns. the rest are defective in these regards - they are called functional Ns. There is another group which shows mixed behaviour. The following table from Vos 1999 makes the picture clear:

(66)

	QN	MN	Con N	Part N	Col N	Kind N
Plural	-	+/-	+	+	+	+/-
Diminutive	-	+/-	+	+	+	+/-
Compound	-	+/-	+	+	+	+/-

This table shows that QNs are the defective functional (Vos 1999:60) Ns, CoNN, CoIN and Part N are like regular lexical nouns and MN and kind N show mixed behaviour.

Vos 1999 shows that DPCs are distinct from Nominal Compounds, though both the forms apparently show the juxtaposition of two Ns. The following examples are considered to show the distinction:

(67)

a. een stapel wolken		Dutch
a pile (of) clouds		'a pile of clouds'

b. een stapelwolk

a pile-cloud 'a cumulus'

c. stapels wolken

pile-pl(of) clouds 'piles of clouds'

d. stapelwolken

pile-cloud-pl 'cumuli'

e.* Stapels wolk

In the above data (a) and (c) are DPCs which involve an N1 and an N2 where either can take the plural marker. The compound stapelwolk in (b) and (d) is a nominal compound which does not allow a plural marker in between, as seen in (e).

While comparing the properties of cardinal numerals with those of N1s, Vos 1999 suggests that cardinal numerals are functional nominal elements which head their own projection and the projection dominating a cardinal numeral is not a maximal projection. Among the six subtypes of N1, QNs and MNs appear in environments of quantifiers. ConN and PartN, as they denote quantity (unlike CoIN and KindN), fit better in the environments of quantifiers than CoIN and kind N.

Vos' distinction between compounds and partitive constructions is significant to us. Some Asamiya partitive constructions which involve light nouns show two types of arrangements, Num(one)-N1-N2 and N2-N1. The second type looks like a compound to one who is not a native speaker of Asamiya or to one who is not informed of the implication of that structure. However, we cannot use Vos' identification test of compounds since in our analysis, there is no number dimension in classifier languages.

1.8. Summing up:

The review of literature in this chapter serves as a background to our theoretical analysis of Bangla and Asamiya nominals in chapters four and five. Most of the works reported here offer us more of insights rather than any analytical equipment to

be borrowed directly for use. Except the work on Chinese (Tang 1990), none of the works deal with a language which has classifiers. Besides the classifier languages that we study do not have definite articles -- a class on which the original DP-hypothesis is built up. Still, since we accept in principle that nominal constructions in all languages have sentential properties, we adopt the overall structure of the DP. We would suggest that in a classifier language, the Q (which hosts the classifier) itself is the locus of referentiality and not D. We have not reviewed other works on classifier languages in this chapter since our interaction with those writings will be of a different kind. We would be in a position to react to the analyses there for availability of common issues. The literature surveyed in chapter one places greater stress on the principles involved in nominal structures. We would take our cue from here to use the DP-structure in exploring parametric issues related to Bangla and Asamiya.

Chapter Two

The Bangla Database and Earlier Descriptions

2.0. Introduction:

This chapter gives a survey of how the database of Bangla has been approached by earlier grammarians. It reviews the works of Tagore 1891, Chatterji 1926 and Dasgupta 1983, 1985. Each of the three grammarians is unique in his mode of exposure to data, overall intellectual orientation and investigative pursuits. Tagore is basically a creative writer who has been a witness of a long course of changes, growth and development of Bangla through his participation in creative literature and spoken discourse at various levels. His interest in grammatical issues has been semi-academic, but his observations are very original. The credit of identifying the classifiers in the nominal constructions and reflecting upon their uniqueness goes to him and his attempt to understand them with the help of the limited means of description available to him gives us a different perspective. Chatterji is a comparative philologist who has given the first most exhaustive diachronic description of Bangla and has sufficiently surveyed the comparative structures of Bangla and its neighbouring languages. Dasgupta belongs to our time. He is the first successful generative grammarian of Bangla who has worked in all the major versions of generative grammar. His association with the changing trends in frameworks allows us to share his reorganization of description of the database that befits a theoretical analysis in a generative framework. Our work is directly related to Dasgupta's description since he has unequivocally established the status of classifiers in Bangla nominals and has given directions to the works to follow. His treatment of definiteness marking through classifiers and his introduction of the notion of aggregation have significant bearing on our work. The diversity of perspectives of these three stalwarts in their respective fields is reason enough for us to exclude other descriptions.

2.1. Tagore, the grammarian:

The first attempt to discuss the role of classifiers in the grammatical system of Bangla is made by the Nobel laureate litterateur Rabindranath Tagore who has also contributed a number of essays on grammatical issues. Tagore 1891 identifies Ta, To and Te as grammatical entities and calls them *bibhoktis*. He provides a morphophonemic account of these three items and shows that the change in the vowel is systematic in Bangla. Though we do not accept Tagore's view that Ta, Ti and Te are *bibhoktis*, we surely owe the opinion that they are allomorphs of one another to him.

Tagore offers a comparison between the English articles and Bangla classifiers. He treats the classifiers as *nirdesok cinho* i.e. demonstrative signifier (Translation is ours; not to be confused with demonstratives). It is due to this signifier that a common noun becomes a specified noun (*SadharOn biSeSSo*' becomes *biSeS biSeSSo*, in his terms), for example the word kagoj 'paper' means all papers but one needs a special signifier to indicate a particular paper. Similarly ghoRa "horse" indicates a species but in constructions such as ekTi ghoRa "one-cl-horse" and tin Ti ghoRa "three-cl horse" the meaning becomes restricted and the expression indicates one (or more than one) particular horse(s). The demonstrative signifier, according to Tagore, is an equivalent of English article and it is attached to the right of a noun but the English article precedes the noun, e.g..

(1)

a. the room English

b. ghOr-Ti

house – cl ' the room' Bangla

Tagore points out that the English article the cooccurs with nouns specified for both singular and plural numbers but Bangla Ti and Ta specifies only one entity. Considering the following examples,

(2) a. rasta kon dike

road which side 'Which side is the way ?'

b. rasta-Ta kon dike

road-Cl. which side 'Which side is the road ?'

Tagore says that (2a) is a general question about the way as opposed to (2b), which is a question about a particular road.

Another distinction between English the and Bangla Ta is that the use of the is more frequent than the use of Ta. The following pair shows the comparison :

(3)

a. modhu ghOr-e ache Bangla

Madhu room-loc be-lp-pres 'Madhu is in the room'

b. Madhu is in the room. English

In the context of (3a) above, the noun ghOr is enough since the expression indicates that 'Madhu is not outside'. But if in a sentence there are two nouns and one of them needs to be emphasized, it can be done with the use of Ta, Tagore observes that among the following,

(4)

a. goru-Ta maThe corche

Cow-cl field-loc graze pc 3p 'The cow is grazing in the field'

b. maTh-Ta-te goru corche

field-cl-loc cow graze-pc 3p 'In the field, a cow is grazing'

(4a) gives more importance on goru "cow" which is why Ta is added to goru and in (4b) the emphasis is more to the location, maTh "field" where the cow is grazing.

Tagore discusses the issue of selection restriction of Ta and Ti also. The signifier Ti is used when the speaker refers to something which is either small in size or is rather dear to him/her. In contrast, Ta is used with the noun which indicates something which is big in size and is not very dear to the speaker. His examples are the following:

(5)

a. chata-Ta kothay ?
umbrella-cl where 'where is the umbrella?'

b. chata-Ti kothay ?
umbrella-cl where 'Where is the umbrella?'

Here, the speaker expresses a little care towards the umbrella in (5b), but (s)he does not do so in (5a).

Tagore notices that though Ta does not occur with proper names, there are some special cases where Ta / Ti gives the speaker some scope to express his/her attitude towards the information conveyed through a sentence. For example,

(6)

a. hori-Ta baRi gEche
Hari-cl home go-pr-pf. 3p 'Hari has gone home'.

b. SEm-Ta bhari duSTu
Shyam-cl very naughty 'Shyam is very naughty'.

In (6a), the combination of classifier with the proper name shows that the speaker does not like the idea that someone has gone home. On the other hand, the same strategy is used in (6b) to show that the speaker is rather indulgent towards the person who is naughty. But Ta cannot be used with the name of a respectable person.

Tagore observes that when Ta is combined with a mass noun it never indicates a small quantity. Consider the following sentences:

(7)

a. behar-er maTi-Ta urbOra
Bihar-gen soil-cl fertile 'The soil of Bihar is very fertile'.

b. giriDi-r kOyla-Ta bhalo
Giridi-gen coal-cl good 'The coal of Giridi is good'.

c. bhim nag SondeS-Ta kOre bhalo
Bhim Nag sandesh-cl makes good 'Bhim Nag makes really good sandesh'.
(Bhim Nag is a legendary sweet maker of Bengal.)

According to Tagore (and we too agree with him), in all the three sentences above, the items indicated by the mass nouns are not small in quantity.

In contrast, the classifier Tuku, which is also used with mass nouns, always indicates small quantity. Tagore feels that the selection of Tuku by a mass noun is not idiosyncratic. It does not combine with something which indicates a particular shape. His examples are the following:

(8)

a. *iar-riN-Tuku
earring - cl

b. *poddoM-Tuku
lotus - cl

c. *pagRi -Tuku
turban - cl

d. Sona-Tuku
gold-cl 'the little amount of gold'

e. cun-Tuku
lime – cl 'the little amount of lime'

f. reSOm-Tuku
silk-cl 'the little amount of silk'

The nouns used in the examples (8d-f) are all mass nouns; they retain all the properties of the matter even when the quantity is very little.

One more important behaviour of Tuku is observed by Tagore. That is, it can be combined with demonstrative pronouns like ei "this" and oi "that". This combination works as an adjective, modifying the noun that follows it, for example,

(9)

a. ei-Tuku manuS
this-cl man 'such a little man'

b. oi-Tuku baRi
that –cl house 'such a small house'

This point is discussed in detail in chapter five. Tagore has not shown the contrast with Ta in this regard. Ta does not get combined with demonstratives ei or oi to precede a noun. It is shown in chapter five of this dissertation how Ta and Tuku are different in their grammatical behaviour. The prenominal occurrence of a

demonstrative-classifier combination is very rare in Bangla. It is possible only with Tuku and not with Ta or any other classifiers.

It is also pointed out by Tagore that the behaviour of Bangla Ta is exactly the opposite of English articles when it comes to the cooccurrence with the demonstrative this or the possessive my. Thus, dem-*art-N or my-*art-N are ungrammatical combinations in English but the Bangla demonstrative signifier (Tagore's term) Ta allows both demonstrative and possessive before the noun; e.g.:

(10)

a. ei boi-Ta

this book-cl 'this book'

b. amar kOlom-Ti

my pen-cl 'my pen'

Among other observations on Ta made by Tagore, the following would be relevant for the present work.

If Ta is added to an adjective, the combination will be nominal in nature, e.g. :

(11)

Ordhek- Ta rakho

half -cl. keep ' keep half (of it)'

(ii) Case makers are added after Ta, in combinations of Noun-cl, e.g.

(12)

a. meye-Ti-r

girl-cl-gen. 'the girl's'

b. lok-Ta-ke

man-cl-acc. 'to the man'

c. baRi-Ta-te

house-cl-loc 'in the house'

(iii) When Ta is combined with a numeral, the combination has adjectival function, e.g.:

(13)

a. Ek -Ta gach

one-cl tree 'One tree'

b. dui-Ti meye

two-cl girl 'two girls'

The Bangla equivalent of the English indefinite article a is Ek-Ta i.e. the combination of numeral Ek "One" and classifier Ta, e.g.

(14)

Ek-Ta manuS ghOr-e elo

one-cl man room-loc come-past 'A man came into the room'.

The above expression is different from the one shown in (15) below where Ta follows the noun and there is no numeral attached to it:

(15)

manuS-Ta ghOre elo

man-cl room-loc come-past 'The man came into the room'

Here, the identity of the man is specified.

However, Tagore thinks that Ek-Ta "one-cl" or ek-Ti "one-cl" is not indefinite when Ek/ek "one" indicates the numeral "one".

(v) Ta is generally prohibited where the word Ek "one" is added to an adjective:

(16)

a. lOmba Ek phOrdo

long one list 'One long list'.

b. mOSto Ek babu

big one gentleman 'One important gentleman'.

c. Sat-hat Ek lathi

seven-hand one stick 'a stick which is as long as seven arms'.

(vi) If Ta/Ti is combined with a numeral other than Ek "one", the combination works as a numerative adjective and it cannot be compared to an indefinite article.

Tagore establishes that khana (which has a variation khani), another demonstrative signifier of Bangla, indicates individuation. Though its etymological meaning is "part", it does not mean the part of the item denoted by the noun; rather it specifies the noun in its completeness and independence, for example:

(17)

a. kagoj-khana
   paper-cl 'the paper'.

b. sleT-khana
   slate-cl 'the slate'.

He introduces a general rule of semantic restrictions. The words, which denote items with the dimension of one surface (only length and width) and without height usually, prefer khana. The items which has all the three dimensions (length, width and height) usually do not allow khana/khani. The following list of correct and incorrect expressions is given to support this view:

(18)

a. maTh- khana	g. *pahaR-khana
field-cl	hill-cl
b. khet-khana	h. *nodi-khana
farm-cl	river-cl
c. thala-khana	i. *ghoTi khana
plate-cl	utensil-cl
d. khata-khana	j. *baTi-khana
plate-cl	utensil-cl
e. luci-khana	k. *SOndeS khana
puri-cl	sandesh-cl
f. Salpata-khana	i *am-khana
sal-leaf-cl	mango-cl

There are exceptions to this rule; khana is used with items which are not specifically thin, for example:

(19)

a. khaT-khana
   bed-cl 'the bed'

b. ghOr-khana
   room-cl 'the room'

c. nouka-khana
   boat – cl 'the boat'

The things which do not have a specific shape and which are in liquid form or remain isolated or scattered do not allow khana, e.g.

(20)

a. *bali-khana
   sand-cl

b. *dhulo-khana
   dust-cl

c. *maTi-khana
   soil-cl

d. *dudh-khana
   milk-cl

e. *jOl – khana
   water-cl

f. *tel-khana
   oil-cl

The word EK "one" cannot be added to Ta to modify words like dhulo "dust" or jOl "water", e.g.

(21)

a. * EkTa dhulo
   one-cl dust

b. *EkTa jOl
   one-cl water

but there is no such restriction with the word Onek "much", e.g.

(22)

Onek-Ta/khani jOl
much-cl water 'a lot of water'.

Here Onek indicates quantity and not counted number. One must note here that with words like dudh "milk" and jOl "water" it is khani and not khana which is combined with Onek "much":

(23)

a. Onek-khani dudh/jOl
much-cl milk/water ' a lot of milk/water'

b. *Onek-khana dudh/jOl
much-cl milk/water

In short, khana is used for indicating individuated countable entities and khani is used for indicating uncountable quantities.

Khana and khani cannot occupy all the slots of Ta and Ti respectively but Ta and Ti can occupy all the slots of khana and khani respectively.

Tagore considers two more items gacha and gachi which belong to the same category of 'demonstrative signifiers'. These two are used with items which has mainly the dimension of length (regardless of straight or curved) and which is thin, for example :

(24)

a. choRi-gacha
stick-cl (walking stick) 'the stick'

b. laThi-gacha
stick-cl 'the stick'

c. doRi-gacha
rope-cl 'the rope'

d. Suto-gacha
thread-cl 'the thread'

e. har-gacha
chain-cl 'the chain'

f. mala-gacha
garland-cl 'the garland'

g. cuRi-gacha
bangle-cl 'the bangle'

h. Sikol-gacha
chain-cl 'the chain'

Compared to Bangla, English has a lexical gap. The two Bangla words soru and patla have only one translation equivalent in English "thin"; gachi and gacha is used with items which are soru "thin" i.e. string/stick shape. Only inanimate objects allow gachi

or gacha. Names of living beings, even those with specifiable and appropriate shape, do not occur with gachi or gacha, e.g.

(25)

* keMco gachi

earth worm-cl

Shape is not the only criterion, suggests Tagore, since the item needs to be of considerable length. In the following expressions:

(26)

a. doRi-gacha

rope-cl 'the rope'

b. *goMph-gacha

mustache cl

(26a) is permitted considering the length of doRi "rope" as opposed to *goMph "mustache" in (26b). Tagore notices that there are combinations of both gacha and Ta which are attached to nouns. In such cases the final vowel/a/ is deleted, for example :

(27)

a. laThi-gacha

stick-cl 'the stick'

b. mala-gach-Ta

garland-cl-cl 'the garland'

As it appears from the above review, Tagore's primary concern is to find out how semantic selection is done by the classifiers. His repertoire is about one hundred years old. Some of the expressions are not in use at present. Among all the points made by him, the following are incorporated in our analysis:

a. Classifiers and nouns cannot be chosen at random. Mismatch of their semantic properties results in wrong constructions.

b. Classifier selection is sensitive to distinctions of nouns regarding mass/count, animate/inanimate, human/non-human, long/otherwise, little amount/otherwise etc.

c. Case-marker is added after the classifier in the noun-cl combination, in other words, a case marker does not interrupt a noun-cl combination.

d. In an expression with quantifier-classifier combination that excludes a noun, the identity of the noun is understood.

2.2. Chatterji 1926:

Chatterji 1926, an exhaustive work on Bangla in the tradition of comparative philology, defines classifiers as 'post-positional affixes or words which are added to nouns or numerals to define the nature of the object or article referred to'. Chatterji calls classifiers 'articles' or 'definitives'. He observes the following regarding their environments:

i. They may occur after 3rd person pronouns.

ii. They may occur after nouns.

iii. When a noun or pronoun is in singular the classifier comes after it.

iv. When a noun is in the plural, it must be qualified by a combination of a numeral and a classifier.

v. If the number is vague or unknown the classifier is not used.

vi. The numeral classifier combination, if preceding the noun, works as an attributive adjective. In such contents the case markers are added to the noun and not to the numeral or classifier, e.g.

(28)

a. Ekjon manuS-er
one cl man-gen 'one man's'

b. Ekjon manus-ke
one cl man-acc 'to one man'

vii. If the classifier or numeral-classifier combination follows the noun the case affixes follow the combination, e.g.:

(29)

a. manuS-Ta-ke
man-cl-acc 'to the man'

b. manuS-du-jon-er

man-two-cl-gen 'of the two men'

c. manuS-du-Ti-ke

man two cl acc 'to the two men'

The classifier can occur with the qualifying genitive ; the case marker or post-position comes after the classifier :

(30)

a. nice-r-Ta-r

below-gen-cl-gen 'on the one below'.

b. upor-er-khana-theke

top-gen-cl-pp 'from the piece on the top'

c. paS-er-jon-ke

beside-gen-cl-acc 'to the one beside'.

ix. When the classifier occurs before the numeral instead of after it and the combination either precedes or follows the noun, the sense conveyed is vague or indefinite, e.g. :

(31)

a. jon-dui manuS

cl-two man 'some two men'.

b. manuS jon-dui

man cl- two 'some two men'

The vagueness of sense can be emphasised with the indefinite forms of the numerals with the use of the word Ek /ek "(indefinite)one" combined with another numeral, e.g.

(32)

a. jon dui-ek

cl. two-one(ind.) 'some two people'

b. khan dOS-ek

cl. ten-one(ind.) 'some ten pieces'

Chatterji observes that the general principle related to the distribution of classifiers in Bangla resembles that of the numerative or qualifying words of Chinese and Japanese though the variety and range of their use are more restricted in Bangla compared to the other two languages.

Chatterji identifies seven items (classifiers) as the common numeratives of Bangla, of which one item goTa/ guti does not seem to occur with numerals. The rest of them are the ones underlined in the following data :

(33)

a. dui khan hat (khani/khana)
   two cl hand 'the two hands'

b. gach / gacha / gachi

c. bhai dui jon-e
   brother two cl-nom. 'the two brothers'

d. duTi hat (Ta/ Te)
   two cl hand 'the two hands'

e. kapoR du than
   cloth two cl 'the two pieces of cloth'

f. du ta kagoj
   two cl. paper 'two sheets of paper'

(The item ta, though similar to Ta in sound, is basically a Persian borrowing.)

Among these items shown above, khan/khana/khani (a) is used to "specialise objects of rectangular or flat form or objects which have a frame-work", gacha/gachi is used with reference to thin and as the 'post-positional 'definite article' meaning an object, a whole and than is used to indicate a 'flat piece', or 'round or rectangular piece'. The item ta is used only with the noun kagoj "paper".

Chatterjee treats Ta, To, Te, Ti, Tu and Tuku as variations of the same 'post positional definite article'. He holds that each of the first four means 'an object, a whole' and Tu is the variation of the affix Ta when it occurs with the numeral ek/Ek

and forms ekTu, this form seems to be further strengthened to Tuku which means 'a small quantity of anything' which is in liquid form or is in fragments. For example:

(34)

a. ekTu jOl/nun 'a little water/salt'

b. jOl/nun Tuku 'the little water/salt'

We do not agree with this view. We shall treat Tuku as an independent classifier, distinct from Ta and its variations, and ekTu as an integrated quantifier since it does allow a classifier after it, just like other quantifiers and numerals, e.g.

(35)

ekTu-khani jOl/ca/dudh

little-cl water/tea/milk 'a little water/tea/milk'.

2.3. Dasgupta 1983:

Dasgupta 1983 establishes the grammatical status of Ta as a classifier and not as definiteness or specificity marker. Having worked on an enlarged database, he argues that the kind of definiteness marking Ta participates in is essentially different from that obtained by the definite determiners in English, French and German. The following are the major points which have longstanding impact on the future work and which give directions to the further research areas.

2.3.1. Variations of Ta and the classifier's environment :

Talking along the same line with Tagore 1892 and Chatterjee 1926 Dasgupta 1983 also shows that Ta, To and Te are allomorphs. One of them occurs in the environment of Num-N, as seen in the following data :

(36)

a. Ek Ta kOlom

one cl pen 'one pen/a pen'

b. du To kOlom

two cl pen 'two pens'

c. tin Te kOlom

three cl pen 'three pens'

Other classifiers also occur in this environment even though the numeral might indicate a fraction as in aRai "two and half", e.g.

(37)

a. car jon sromik

four cl labourer 'four labourers'

b. paMc khana luci

five cl puri 'five puris'

c. aRai khana rOSogolla

two and half cl rasgolla 'two and half rasgollas'

The classifier jon indicates persons and khana indicates inert objects.

2.3.2. Constructions without classifiers:

It is shown that classifiers are not a necessary component of every numeral – noun combination. In the following constructions, the numeral is not supported by any classifier :

(38)

a. du deS-er moitri

two country-gen g friendship 'the friendship between two countries'.

b. car paS

four side 'four sides'

c. tin bOchor

three year 'three years'

d. tin caka-r gaRi

three wheel-gen vehicle 'a vehicle with three wheels'

e. tin dik

three direction 'three directions'

f. ora car bon tin bhai

they four sister three brother 'they are four sisters and three brothers'

Dasgupta 1983 sees that constructions with measure words do not normally take classifiers. This applies to both standardised and indigenous units and time measure words, e.g.

(39)

a. du gOj
two yard 'two yards'

b. tin hat
three hand/arm 'three cubits'

c. car miTar
four meter 'four metres'

d. paMc peala ca
five cup tea 'five cups of tea'

e. du din
two day 'two days'

f. tin maS
three month 'three months'

The measure word peala "cup" and the time measure word bOchor "year" or maS "month" may occur with classifiers where they take the position of a noun, e.g.:

(40)

a. duTo bOchor
two cl year 'two years'

b. duTo maS
two cl month 'two months'

c. paMc Ta peala
five cl cup 'five cups'

The issues related to slot sharing by the classifiers and measure words will be dealt with in the later part of this thesis.

2.3.3. Combination of mass quantifier and classifier:

Dasgupta 1983 shows evidence that the classifier Ta occurs not only with numerals but also with the mass quantifiers like Onek 'much' and SOb 'all', e.g.

(41)

a. Onek Ta bhat
   much cl rice (cooked) 'a lot of rice'

b. SOb Ta cini
   all cl sugar 'all the sugar'

He treats kOek "a few" as a numeral in the following expression :

(42)

kOek Ta bOsta
few cl sack 'a few sacks'

However, Ta occurs with other mass quantifiers as in the following:

(43)

a. SOb Ta tel
   all cl oil 'all the oil'

b. kichu Ta tel
   some cl oil 'some oil'

c. khanik Ta tel
   some cl oil 'some oil'

This mass quantifier-classifier combination is said to have adjectival functions, but it is not categorically adjective. It is an element which modifies a noun but syntactically it is different from adjectives.

2.3.4. Classifiers and definiteness marking:

Dasgupta 1983 strongly argues that definiteness marking that involves classifiers is a syntactic process in Bangla. A numeral classifier combination, while preceeding a noun, gives an indefinite reading, e.g. :

(44)

a. Ek Ta kham
one cl envelope 'one envelope'

b. du To kham
two cl envelope 'two envelopes'

c. tin Te kham
three cl envelope 'three envelopes'

As opposed to that, when the same combination follows a noun, the expression has a definite sense, e.g. :

(45) a. kham du To
envelope two cl 'the two envelopes'

b. kham tin Te
envelope three cl 'the three envelopes'

Though the encliticisation of num-cla to noun seem to mark definiteness, there is no permanent solution as to why Ek "one" does not participate in such encliticisation in a definite expression. For example,

(46)

a. Ek Ta kham
one cl envelope 'one envelope' : indefinite

b. *kham Ek Ta
'envelope one-cl

c. kham Ta
envelope cl 'the envelope' : definite

(b) is not permissible but (c) is.

Other members of the classifier group, especially the human classifier jon and inanimate classifier khana also take part in the same pattern. In this matter, khana is closer to Ta as evident from the following data :

(47)

a. Ek khana CiThi indefinite
one cl letter 'one letter'

b. du khana ciThi		indefinite
two cl letter	'two letters'	
c. ciThi khana		definite
letter cl	'the letter'	
d. ciThi du-khana		definite
letter two cl		

But jon is not very free to occur in the postnominal position, marking definiteness in all varieties of Bangla. A definite expression like the following which involves jon is not used by all speakers of standard Bangla :

(48)

sromik car-jon	
labourer four-cl	'the four labourers'

Moreover jon is not at all allowed in a combination similar to (c) and (d) above, which shows its default character regarding sharing of environmental patterns with other classifiers; the following expression is not permitted in standard Bangla :

(49)

* sromik jon
labourer cl

Dasgupta 1983 is informed that the Asamiya counterpart of jon is permissible in this environment. Our own investigation however does not tally with his prediction that dialects of Bangla which are closer to Asamiya may permit this.

2.3.5. Combination of non-numeral quantifier and classifier:

Dasgupta 1983 extends classifierhood to gulo and shows that it is a morpheme on its own and is independent of Ta because occurrence of gulo prohibits Ta. The classifier gulo is positively specified for the count feature and it selects a non-numeral quantifier, e.g.:

(50)

a. Onek gulo bOsta

many cl sack 'many sacks'

b. kOtok gulo bOsta

some cl sack 'some sacks'

c. SObgulo luci

all cl puri 'all the puris'

The quantifier kOek "a few" which is treated as a numeral (see example) and the real numerals take Ta (or any of its variants) whereas non-numeral count quantifiers take gulo. Mass quantifiers take Ta instead of gulo. This generalisation is further confirmed with the help of the following contrasting structures :

(51)

a. Onek Ta rasta

much cl road 'a long way'

b. Onek gulo rasta

many cl road 'many ways'

Bangla does not have two separate morphemes for 'much' and 'many' but their morpho-syntactic contrast is maintained with the contrast of Ta and gulo as separate morphemes.

2.3.6. Vague quantification and the classifier's environment:

Dasgupta 1983 postulates goTa as an independent classifier which is not an allomorph of Ta despite apparent similarity. It is also different from gulo. He shows that there is a pattern of vague quantification in Bangla noun phrases where the order of numeral, classifier and noun is : cla-Num-N. The numeral is suffixed by ek, which is a vegueness marker and is not a variant of the numeral Ek "one" (They may be historically related, but not synchronically). The suffix –ek, if added to a numeral, makes the sense of the numeral vague, e.g. :

(52)

a. tin-ek

three-v.m. 'three or so'

b. du-ek

two-v.m. 'two or so'

c. car-ek

four-v.m. 'four or so'

This combination of numeral and vagueness marker does not allow the classifier to occur after it. The classifier occurs before this combination with a minor change in its final vowel, e.g:

(53)

a. jOn (a) car ek sromik

cl four vm labourer 'four labourer or so'

b. khan paMc-ek luci

cl five-vm puri 'five puris or so'

It is noteworthy that Ta does not occur in this environment, rather goTa does, e.g.:

(54)

a. goTa tin-ek kOlom

cl. three-v.m. pen 'three pens or so'

b. goTa kOtok bOsta

cl some sack 'some sacks'

Still, goTa is not to be treated as an allomorph of Ta. Has it been so, kOtok would have allowed Ta after it in a Q/Num-cl-N order. But that does not happen:

(55)

* kOtok Ta bOsta

According to Dasgupta 1983, goTa is similar to gulo as both of them are specified for count quantifiers, but they are different since goTa selects a vague quantifier unlike gulo.

2.4. Dasgupta 1985:

Dasgupta 1985 makes some significant claims which offer a radically different dimension to the study of the syntax of noun phrases. He reviews the standard GB assumption that AGR, the constituent of INFL consisting of agreement features, contains a Number feature. He argues that Bangla does not syntactically manifest Number as a feature; instead, it manifests a similar kind of feature, Aggregation. Aggregation is defined as "a contrast between individual and collective modes of aggregating or considering entities."

The main difference between Number and Aggregation is that Number shows contrast between singular and plural (or sometimes dual, trial etc.) but aggregation shows contrast between individual and collective. Another difference is that unlike Number, Aggregation is not pervasive; in other words, a given NP in a number language must be specified for Number feature but in an Aggregation language, a given NP need not have a specification for Aggregation. It is possible to have truly neutral NPs. Besides, in an Aggregation language like Bangla, verbs and adjectives do not agree with nouns for Aggregation.

Dasgupta 1985 indicates, but does not fully develop, a new perspective in research suggesting the possibility that the primitives of linguistic theory includes neither Number nor Aggregation, but something more elemental which apparently manifest as either Number or Aggregation. Postponing the development of a broad theory which would cover count/mass distinction as well as the syntax and semantics of noun classes and classifiers, he tentatively proposes that Number and Aggregation are morphological features which do not co-exist in a particular language. The idea that a particular language selects either Number or Aggregation for its nominal system leads to the (formal) theoretical proposal that there is a UG parameter regarding this. Two possible alternatives of their mode of operation are: One, UG compels Number languages to include Number in the AGR feature bundle but just permit or does not even permit Aggregation languages to include Aggregation in the feature bundle of

AGR; two: UG makes Number pervasive in a language which selects it but allows Aggregation to be non-pervasive in a language that has it -- that is why, a given noun in an Aggregation language may or may not be specified for Aggregation.

Dasgupta 1985 argues that the structure of Bangla noun system is such that it is misleading to try to analyse it with terms like 'singular', 'plural', 'Number' etc. which are applicable to the structure of a language like English. The feature Number, in a Number language has to do with the issue : Is a designatum of an NP a plurality or not ? In contrast, the basic question related to the feature of Aggregation is : Does the NP approach its designatum collectively or individually? This question can be appreciated better with a close look at the following data in (56) and (57) below. The expressions in (56) show cases of individual aggregation:

(56)

a. Ek Ta kukur
   one cl dog 'one dog'

b. paMc Ta kukur
   five cl dog 'five dogs'

c. kOek Ta kukur
   few cl dog 'a gew dogs'

d. kukur Ta
   dog cl 'the dog'

In these expressions, the classifier Ta marks individual Aggregation where the NP is approaching its designatum one segment at a time where a segment is either a countable object or a diffusely measurable stretch. Counting may not be necessary for individual Aggregation if the designatum in reality is not countable, as is the case for the following:

e. Onek Ta jOl
   much cl water 'a lot of water'

f. jOl Ta
   water cl 'the water'

Collective aggregation is exemplified in the following expressions:

(57)

a. kOTok gulo kukur

some cl dog 'some dogs'

b. Onek gulo kukur

many cl dog 'many dogs'

c. kukur gulo

dog cl 'the dogs'

Here the items are bunched together in a collective group.

The dual role of the quantifier Onek "many"/"much" which gives the meaning "many" with regard to countable segments and the meaning "much" with regard to the amount of the entity approached in an undivided "one", stands proof for the contrast between the individual aggregation classifier Ta vs. the collective aggregation classifier gulo :

(58)

a. Onek Ta kaj

Q cl work 'a lot of work'

b. Onek gulo kaj

Q cl work 'many works' / 'a lot of works'

The word Onek itself is undecided about its choice of meaning while it is in the base form. Its 'much' reading is obtained when it is combined with the individual aggegation classifier Ta and the 'many' reading with the collective aggregation classifier gulo.

The other regular classifiers of Bangla are also sensitive to Individual/collective Aggregation difference and each classifier maintains its Aggregation value in all its uses. The human classifier jon marks Individual Aggregation. The inanimate classifier khana and its variant khani also do the same. khana occurs with count nouns and khani with mass nouns. Although Dasgupta 1983 rejects the possibility of khani being used postnominally, in poetry there are postnominal uses of khani,e.g:

(59)

a. die genu bOSontero ei gankhani
giving gone spring-gen this song-cl
'I have presented you this song of the spring'

b. bhOra thak SriMtiSudhay hridOy-er patrokhani
filled be memory-sweet-loc heart-gen bowl-cl
'let the bowl of heart be filled with sweet memories'.

The nouns gan in (59a) and patro "bowl" (a simile for heart) are meant to be countables. Here khani might have been used as a poetic variant of khana. Otherwise Dasgupta is right saying that khani and khana are mutually exclusive. khana is not permissible with mass nouns, as I see in the expression like the following :

(60) a.*Onek khana aTa
much cl flour

b. Onek khani aTa
much cl flour 'a lot of flour'

Details on Dasgupta's observation that Goswami 1982 identified individual/collective distinction in Asamiya correctly but gets odd results due to the use of the terms 'singular' and 'plural' will be discussed in the next chapter on Asamiya.

2.5. Overall observation:

The Bangla database related to nominal constructions involving the classifiers has drawn the grammarians' attention primarily to two major facts: one, the role of classifiers in definiteness marking and two, the role of classifiers in the expressions of quantification. Among the three grammarians discussed in this chapter, all the three have noticed that the postnominal occurrence of classifier or a classifier-numeral combination marks definiteness. As regards the quantificational expressions, Tagore's comparative analysis of the classifiers Ta and Tuku can be interpreted as classifiers having a meaning content. Though the use of the classifier khana has been reduced in synchronic data, we would see that its environment (as shown in 18) is similar to

the Asamiya classifier khOn. In the standard colloquial Bangla of the present time, Ta seems to have replaced khana in a major way, especially in formal discourse. However, the classifier system of Bangla, regardless of whether it operates totally, can roughly distinguish nominal referents in relation to different features (such as human or non-human, structured or non-structured etc). It is also sensitive to their countability. This aspect is reflected in the syntax of Bangla quantified nominals. In our study of Asamiya nominals in the next chapter, we shall see how the same aspect is much more prominent in a language with a richer classifier system.

Chapter Three

The Asamiya Database and Earlier Descriptions

3.0. Introduction:

This chapter gives a chronological account of how quantified nominal expressions in Asamiya have been treated by earlier grammarians. The changing trends bear some similarity with those of the analysis of similar expressions in Bangla. The different phases of analysis are: identification of a group of lexical items taking a significant role in quantification, determination of their uniqueness, comparison with Sanskrit and English, attempts to look for English equivalents, extension of English-based description to vernacular data, assessment of such analysis and demonstration of its limitations. Each of these phases contributes significantly to the development of a cross-linguistic perspective. A mere superficial comparison of Bangla and Asamiya nominals show that the classifiers form a more developed system in Asamiya than Bangla. Asamiya classifiers are not only more in number than their Bangla counterparts, their range of operation is also quite wide. Semantically, they classify more distinctly according to shape, size and constitution of the classified noun for the non-human referents and according to age, sex and honorificity of the human referents. Syntactically, they show a lot of consistency in definiteness marking through changes in the word order. All the analysts whose works have been reported in this chapter are all native speakers of Asamiya. Their descriptions are so exhaustive that the database itself can function as a metalinguistic tool to comment on the Bangla facts. However, a direct comparison is postponed to chapters four and five. The review of earlier descriptions serves as a prelude to the theoretically oriented discussions which follow the standardised conventions of DP-analysis. The theory-free descriptions reported in this chapter lead to problematization of facts and formation of issues to be addressed later. For example, the terminological differences indicate the existence of conflicting opinions on the identity of certain nominal items. All descriptions are appreciated since they give us the scope to examine several

possibilities. The examinations finally result in our theoretical observations recorded in the following chapters.

3.1. The identification of classifiers: Medhi 1936:

Medhi 1936 studies Asamiya nominals and comments on the role of classifiers in them. He calls the classifiers 'particles'. He argues that their use with the numerals is a significant factor distinguishing the Tibeto-Burman family of languages from Sanskrit. In Sanskrit, numerals are used as adjectives without the addition of any word to show the class of things they qualify. But in Tibeto-Burman languages, a numeral needs a certain 'particle' to show the class to which the thing enumerated belongs. The particle is prefixed in some Tibeto-Burman languages such as Chutia, Kachari and Garo. Medhi points out that though Asamiya owes the particles to the Tibeto-Burman languages, they are used in a different manner. In Tibeto-Burman languages, the particles are prefixed to the numeral, whereas in Asamiya, they are suffixed to the numerals. Compared to the later works such as Kakati 1941 and Goswami 1982 which suffers from the use of descriptive terminology suitable only for the structure of a language like English, Medhi 1936 appears to be more original in using his linguistic insights. He gives more importance to the data. Unlike the other two analysts, he does not try to fit the Asamiya data into a system set by the structure of English. His comparison of the Asamiya data with Sanskrit and English as well as Tibeto-Burman languages Chutia, Kachari and Garo makes it clear how classifiers work in them. His data is presented here with full glosses to make the comparison more visible:

(1)

a.	(i)	ekah narah		
		one man	'a man'	Sanskrit
	(ii)	one man		English
	(iii)	dugu-cha mushi		
		cl one man	'a man'	Chutia
	(iv)	mansui sa se		
		man cl one	'a man'	Kachari

	(v)	mande sak sa		
		man cl one	'a man'	Garo
	(vi)	E zOn manuh		
		one cl man	'a man'	Asamiya
b.	(i)	one bamboo		English
	(ii)	tho se wa		
		cl one bamboo	'one bamboo'	Kachari
	(iii)	gang sa wa		
		cl one bamboo	'one bamboo'	Garo
	(iv)	E dal baMh		
		one cl bamboo	'one bamboo'	Asamiya
c.	(i)	a piece of flesh		English
	(ii)	dat sa bedat	'a piece of flesh'	Kachari
		cl one flesh		
	(iii)	dat sa bitin		
		cl one flesh	'a piece of flesh'	Garo
	(iv)	E khutura manxO		
		one cl flesh	'a piece of flesh'	Asamiya

Grammarians of Medhi's generation are primarily concerned about the morphology rather than the syntax. Having found that classifiers are essentially related to the numerals, Medhi focuses on which side of the numeral the classifier is attached to and draws the distinction between Asamiya on the one hand and Chutia, Kachari and Garo on the other hand. It is evident from the data that there is one more distinction between the two in the first set, that is, a numeral classifier combination occurs before the noun in Asamiya but after the noun in (1.a.iv) and (1.a.v.), in Kachari and Garo respectively. Medhi does not mention whether the word order is comparatively free in those languages.

Medhi's description of Asamiya particles and of the nature of corresponding objects is as follows:

(2)

a. ta	:	for unintelligent animals, such as beasts, birds etc.
b. ta, khOn etc:		for articles conceived as separate entities
c. dal	:	for long things such as bamboo.
d. dhokhar and khutura:		for pieces of stone, meat etc.

However, Medhi treats bor and bilak as 'plural terminations' and does not include them in his list of 'particles' (classifiers). This may be because of his basic criterion that particles occur with the numerals. As bor and bilak do not occur with numerals, Medhi treats them differently.

3.2. Classifiers as definiteness markers: Kakati 1941:

Kakati 1941 works in the same tradition as Chatterji 1926 and his analysis of classifiers is essentially different from that of Medhi 1936 and Goswami 1965, Kakati 1941 calls the classifiers enclitic definitives or numeratives just as Chatterji 1926 does, and presents a similar analysis. In order to define these items, he highlights the following aspects:

(3) a. They are 'post positional affixes' or words added to nouns; or numerals.
b. They define the nature of the object or article referred to.
c. They are commonly described as 'articles' and have the value of the in English.
d. Pronouns other than those of first and second persons take on these 'post-positions'.

Kakati substantiates his analysis with the help of data in the following way:

3.2.1. Post-positional occurrence:

Kakati emphasises the suffixal nature of the definitives (classifiers). All his examples show that the definitives (classifiers) are added to the stem of either a noun

or a numeral. The items identified by Kakati are the following, all of whom show the post-positional occurrence with nouns. He uses the term 'post-positional' to refer to their placement in post-nominal position:

(4)

a. manuh - to
   man - cl 'the man'

b. manuh - zOn
   man - cl 'the man' honorific

c. manuh - gOraki
   man - cl 'the man' honorific

d. dol - gOs
   rope - cl 'the rope'

e. baMh - dal
   bamboo - cl 'the bamboo'

f. botha - pat
   oar - cl 'the oar'

g. barhoni - tar
   broom stick - cl 'the broom stick'

h. baMh - sOta
   bamboo - cl 'the split bamboo strip'

i. zOri - khOr
   rope - cl 'the rope'

j. noi - khOn
   river - cl 'the river'

k. lOra - kOn
   boy - cl 'the little boy'

As far as the 'post-positional' occurrence of definitives (classifiers) with the numerals is concerned, Kakati 1941 shows that the item ta, which is a form of to (as in (a) above) is used only after numerals, e.g.:

(5) a. du - ta
   two - cl 'two'

b. tini - ta

three - cl 'three'

Since Kakati's system is primarily morphology–based, he does not seem to consider the string with Numeral–classifier–Noun combination in the orders Num-cl–N or N-Num-cl to relate it to definiteness marking especially when definiteness marking is a syntactic process. We need to remember that in Kakati's time the tools of language description are mainly English based. That is why both Chatterji for Bangla and Kakati for Asamiya are involved in looking for direct lexical equivalents of English the in the constructions of Bangla and Asamiya.

3.2.2. Definition of the nature of objects by definitives (classifiers):

Kakati 1941 observes that each definitive (classifier) defines the nature of the object indicated by the noun. While describing each of the items, he specifies the kind of nouns which takes a particular definitive. Data in (6) below shows Kakati's examples along with his specification on Noun-Definitive (classifier) co-occurrence restriction:

(6)

a. powali - kOn

child - cl 'the little one'

(kOn shows endearment by emphasizing smallness.)

b. sOlOni - khOn

sieve - cl 'the sieve'

(khOn is used after nouns indicating something broad and flat.)

c. botia - gOs

thread - cl 'the thread'

(gOs is used after nouns indicating something long and flexible.)

d. baMh - sOta

bamboo - cl 'the split bamboo strip'

(sOta is used after nouns indicating something long and flat, especially if it has been split and made into strips)

e. suli - tar

hair - cl 'the bunch of hair'

(tar indicates something long and loose, tied into a bunch or bundle.)

f. baMh - dal

bamboo - cl 'the bamboo'

(dal is used after nouns indicating something long but round and solid.)

g. xOr - pat

arrow - cl 'the arrow'

(pat indicates something long, flat and narrow.)

h. lon - phera

salt – cl 'a small quantity of salt'

(phera is used after material nouns to indicate a small quantity.)

Apart from showing the distinction between the items listed in (b – h) all of which occur with inanimate nouns, Kakati 1941 observes that definitives (classifiers) occuring with human nouns are distinguished on the basis of the degree of respectability shown to the person(s) indicated by the noun and also on the basis of the sex (male or female). Thus the same noun manuh combines with different definitives (classifiers) to give different results, as shown in (7) below :

(7)

a. manuh - to

man - cl 'the man' (neutral regarding honorificity)

b. manuh - zOn

man - cl 'the man' (more honorific than a.)

c. manuh - zOni

man - cl 'the woman' (feminine)

d. manuh - gOraki

man - cl 'the person'

(both masculine and feminine, more honorific than a, b, and c.)

3.2.3. Observation on (in) definiteness:

As mentioned earlier, Kakati 1941 treats definitives as equivalents of English the as he gives more importance to the expressions where a definitive is suffixed to a noun. His only consideration of indefinites is related to the suffixation of ek after a word, e.g. :

(8)

a. mah-ek
   month - ek 'a month or so'

b. pOx - ek
   fortnight - ek 'a fortnight or so'

c. bOsOr - ek
   year – ek 'a year or so'

For some expressions which can be treated as quantified nominals, Kakati considers them to be equivalent to English 'a few' though they seem to retain some parts with phonological similarity with the numerals and definitives (classifiers). They are the following:

(9)

a. guti - diek sinta
   cl - few thought 'a few thoughts'

b. zOn - serek, lOra
   cl - few boy 'a few boys'

Kakati 1941 compares the behaviour of Asamiya ek with Bangla Ek "one". He shows that whereas Bangla Ek is attached after ordinary numerals as in the following:

(10)

goTa tin-ek 'three or so',

in Asamiya, a similar effect is obtained through the use of man after a combination of numeral and classifier, e.g. :

(11) tini - ta man

three- cl vagueness marker 'three or so.'

We shall see later that Goswami (A.C.) 1971 contests Kakati's view that classifiers should be treated as definiteness markers whereas Goswami (G.C.) 1982 accepts Kakati's position.

3.3. Classification and quantification: Goswami 1965:

Goswami 1965 has Emeneau 1956 as the background offering an extensive discussion of classifiers and quantifiers of Indian languages belonging to three language families, namely, Indo-Aryan, Dravidian and Munda. Goswami 1965 treats Asamiya as one of the important Magadhan languages spoken in eastern India and as the one which makes the most extensive and elaborate use of classifiers and quantifiers among its sister languages. According to him, classifiers and quantifiers gained currency as cultural contact among Aryan and non-Aryan people became more intense. He ascribes the extensive use of classifiers and quantifiers in Asamiya to the diverse influences and counter-influences of the extra-Aryan languages of its neighbourhood.

3.3.1. On classification:

The classifiers in Asamiya, according to Goswami 1965, do not classify the nominals into distinct classes. There is no evidence that they did so in the past. However they do convey some sense and give some idea about the object which they are attached to. The information available in a classifier relates to mainly the following aspects of the noun:

(12)

a. whether male or female
b. whether honorific or general
c. whether big or small
d. whether round, flat or oblong
e. whether in bunches or otherwise, etc.

Goswami 1965 considers the following classifiers to be the most important:

(13)

a. zOn	:	for persons, male and respectable
b. zOni	:	for women and female animals, disrespectful
c. gOraki	:	for both men and women with respect
d. pat	:	for things flat, wide, thin, long or short
e. khOn	:	same meaning as d.
f. dal	:	for things round, long or oblong
g. sOta	:	for things thin and flat
h. khila	:	for things, thin and leaf-like
i. zopa	:	for trees and tree-shaped things
j. mutha	:	for things in bunches
k. tar	:	for thin and long objects
k. ta/ti/to	:	general classifiers for discrete items

Though Goswami 1965 does not share the terminology of Kakati 1941, he too considers ta, ti and to to be the equivalents of English the for men and things in general senses.

Goswami 1965 observes that for non-discrete items, a container or the like may be used as a classifier. Words like bati "bowl" or ghOr "house" may assume the role of a classifier in the following expressions :

(14)

a. E bati pani
one bowl water 'a bowl/cup of water'

b. pani bati
water bowl 'the bowl/cup of water'

c. E ghOr manuh
one house man 'one family'

d. manuh ghOr
man house 'the family'

Emeneau 1956 shows that the regular constructions with the classifier and numeral in classifier-using languages are noun-numeral-classifier and numeral-classifier-noun and there is no information on different meanings for the constructions. Most probably he makes such an observation on the basis of information available from the informants who could be untrained about how to describe language constructions and how to formalise their linguistic intuition. Goswami, since he is a native speaker of the language and also a trained linguist, observes that there are differences in meaning as there are differences in structure. While discussing the constructions identified by Goswami 1965, we will see the ones which are exclusive in his work.

3.3.2. Pronoun-classifier combination:

It is mentioned in Kakati 1941 that pronouns other than first and second persons may cooccur with classifiers. In this regard, Goswami 1965 shows that the combination of third person pronoun and classifier is quite free in Asamiya. He gives following examples of three human classifiers and one general classifier which combine with a pronoun:

(15)

a. i - zOni gai
   dem-cl cow 'this cow'

b. zi - zOn manuh
   dem-cl man 'which man' (relative pronoun)

c. kon - gOraki mohila ?
   which - cl lady 'which lady' (interrogative pronoun)

d. xi - to ghOr
   dem - cl house 'that house'

One limitation that Goswami 1965 seems to have is his treatment of items like bor and bilak as plural morphemes and not as classifiers with a sense of semantic plurality. Grammarians of his generation are preoccupied with the descriptive tools

provided by structures of languages like Sanskrit and English both of which have grammatical number and both of which are non-classifier using languages. The possibility of number as an optional grammatical entity (against aggregation, as Dasgupta 1985 proposes) and not a compulsory one arises only after the development of Principles and Parameters theory of Generative Grammar in the early 1980s.

Goswami 1965 states that in the constructions in (15) above, the classifier is mutually exclusive with the plural morphemes bor, bilak and hoMt. He does not address the question as to why a number marker and a classifier should be mutually exclusive. However, with the modification that these items should also be treated as classifiers, his examples are highly relevant in this regard:

(16)

a. kon - bor kitap
   which - cl book 'which books?' (interrogative pronoun)
b. zi - bilak kitap
   which - cl book 'the books which' (relative pronoun)

3.3.3. Word order and (in) definiteness

Unlike Kakati 1941, Goswami 1965 observes that the order in which numeral, classifier and noun occur in the phrase is related to definiteness marking. But in the apparent order of noun-numeral classifier, he distinguishes two types of constructions – one with a phrase juncture after the noun and another without a phrase juncture. It is the second type which gives us a definite reading. He presents the following data:

(17)

a. du-zOn manuh ahise
   two - cl man come.pp 'two persons (any two) have come'
b. manuh – du-zOn ahise
   man PJ two- cl come.pp 'two persons (any two) have come'
c. manuh du-zOn ahise
   man two-cl come.pp 'the two persons (already referred to) have come'

It is stated that though (b) has the same word order with (c), due to a phrase juncture (indicated as PJ) it gives the same reading as(a). The difference between (b) and (c) stands in the following examples also:

(18)

a. kitap – sari - khOn porhilo
book PJ four-cl read.pt.lp 'I have read four books' (any four)

b. kitap sari-khOn porhiloM
book four-cl read.pt.1p 'I have read the four books' (four particular books)

The fact that in Asamiya definite constructions the numeral need not be a small number (unlike Bangla) is evident from the following expressions discussed by Goswami 1965, (though he does not compare it with Bangla as it is outside the scope of his work):

(19)

a. du - xO manuh
two hundred man 'two hundred men'

b. manuh du - xO
man two hundred 'the two hundred men'

Here the numeral is followed by a numeral unit (xO "hundred"), which is probably working as a classifier. Goswami 1965 does not explain how this definite reading is obtained.

In some indefinite expressions, Goswami shows that a word order difference does not result in a definite expression. These constructions include two numeral–classifier combinations regardless of the order, e.g.:

(20)

a. du - khOn E - khOn kitap
two - cl one - cl book 'one or two books'

b. kitap du - khOn E - khOn
book two - cl one - cl 'one or two books'

The behaviour of the classifier here is the same as a numeral unit in the following expressions:

(21)

a. E - kuri du - kuri manuh
   one-score two-score man 'one or two scores of men'

b. manuh E - kuRi du - kuRi
   man one-score two-score 'one or two scores of men'

But Goswami does not extend any argument whether a classifier like khOn in (20) or a numeral unit like kuri "score" are to be treated as equivalents. The availability of similar expressions where classifiers are also used leads to the issue whether or how far classifiers are obligatory items in a quantified nominal. Goswami does not explain this, but presents the data, e.g.

(22)

a. manuh E- kuri du - kuri zOn
   man one - score two - score cl 'about one or two scores of people'

b. E - kuri du - kuri zOn manuh
   one score two score cl man 'about one or two scores of men'

What becomes evident from the further data given by him is that if there is no numeral unit such as xO "hundred" or kuri "score", the classifier is compulsory, for example:

(23)

a. xat - at - zOn manuh
   seven - eight - cl man 'about seven or eight people'

b. manuh xat - at - zOn
   man seven - eight - cl 'about seven or eight people'

c. bis - pOsis - ta lOra
   twenty - twenty five - cl boys 'about twenty to twenty five boys'

d. lOra bis - pOsis - ta
   boy twenty - twenty five - cl 'about twenty to twenty five boys'

However, Goswami 1965 does not mention that all these expressions would be unacceptable if the classifier is dropped.

3.3.4. Vague quantification:

The point to be noted here is that a numeral-classifier combination can be repeated (with different sequential numerals) in an indefinite expression where the nature of quantification is rather vague. Goswami shown that even word order difference does not change the indefinite status of the expression, e.g.:

(24)

a. du - khOn E - khOn kitap
   two - cl one - cl book 'one or two books'
b. kitap du - khOn E - khOn
   book two-cl one-cl 'one or two books'

About the scope of compound numeral in expressing vague quantification, Goswami feels that their occurrence is limited with numeral units, e.g.

(25)

a. xO - diek
   hundred - some 'some hundreds'
b. hazar - serek
   thousand - some 'some thousands'

Goswami notices that the classifier may follow a compound numeral and their combination either precedes or follows a noun. In either case, the expression is indefinite, e.g. :

(26)

a. zOn - serek manuh
   cl - few man 'a few men'
b. manuh zOn - serek
   man cl - few 'a few men'

Rest of the types of constructions discussed by Goswami are not regular and productive. Therefore they are not included in this section of the dissertation.

3.4. Goswami (A.C.) 1971:

Goswami 1971 is a very important work on the classifiers and quantifiers in Asamiya. The work, despite its merits, has been a victim of indifference and neglect and is unpublished till date.

3.4.1. Reactions to Kakati 1941:

Goswami 1971 finds the four-point observations of Kakati 1941 (given in (3) above) inadequate and offers to modify them in the way described below.

Firstly, Kakati 1941 fails to distinguish between the following two types of constructions as given in (27) below:

(27)

a. tini - khOn kapor
   three - cl cloth 'three pieces of cloth'

b. kapor tini - khOn
   cloth three - cl 'the three pieces of cloth'

Goswami emphasizes the point that the classifier ('numerative' in his term) is always attached to the numeral and not to the noun. In the expressions where it appears to be attached to a noun, the numeral E(k) "one" is deleted on specific phonological grounds, as in the following :

(28)

kapor - khOn
cloth - cl 'the piece of cloth'

Secondly, in response to Kakati's opinion that the classifiers 'define the nature of the object or article referred to', Goswami feels that it does not recognise the fact

that there is a system of classifiers determining the lexical structure in Asamiya which are distinct from the syntactic category of numeratives. Numeratives in Asamiya, according to Goswami, include both classifiers and other non-classifying items.

Thirdly, regarding Kakati's opinion that the classifiers have the values of English the, Goswami finds the point misleading due to the analogy with English on the one hand and Bangla and Oriya on the other. He observes that the classifier systems in Bangla and Oriya are not as elaborate as Asamiya which is more like the Astro-Asiatic language Malto referred to in Emeneau 1956. Classifiers themselves are not definitives in Asamiya, definiteness is realised by construction types N-num-cl or N-Num (one)- cl as in (27b) and (28) above.

Fourthly, about Kakati's observation that pronouns other than first and second persons take classifiers, Goswami derives a pronoun-classifier combination with the help of E(k) "one" deletion and states that a pronoun-classifier combination is basically similar to the structures in (27b) and (28), which is evident from (29) below :

(29)

a. xei (E) khOn kapor
   that (one) cl cloth — 'that piece of cloth'

b. xei - khOn kapor
   that - cl cloth — 'that piece of cloth'

c. xei tini - khOn kapor
   that three - cl cloth — 'those three pieces of cloth'

Besides, Goswami observes that Kakati 1941 has not included a variety of items that occur in the classifiers' environment. His explanation is that Kakati is interested in finding a close set of items comparable to English the as well as half a dozen definitives in Oriya and Bangla. Thus, he missed out on a large number of classifiers in Asamiya.

Given the different terminology such as 'classifiers' 'numeral classifiers', 'numeratives' 'numeral designations', 'descriptive words', and 'quantifiers' to what

we understand as classifiers, Goswami 1971 argues that each of these terms is inadequate. The label 'classifiers' refers to the semantic classification of nouns in a language like Asamiya but it may not be appropriate to determine a syntactic category. In Asamiya, Goswami 1971 observes, words referring to standard measures, container measures and partitive measures behave exactly like the classifiers in all syntactic environments, but they cannot be called classifiers. The term 'numerative' only indicates that the items are attached to numerals. However, Goswami himself prefers the term 'quantifier' for three reasons, first, it makes the relation between these items and the NP more explicit; second, the term is already being used in describing languages like English and therefore it can be extended to other languages as well; third, it is convenient for descriptive purposes.

3.4.2. Definite expressions:

Goswami's identification of definite expressions in Asamiya is obviously worth adopting. In the first step, he identifies nine types of definite NPs. They are the following:

(30)

a. Proper names : Ram, Jadu, Assam

b. Demonstrative (deicitic) + Noun

   i. ei kitap
      dem book 'this book'

   ii. xei thai
      dem place 'that place'

c. Personal pronouns:

   i. moi 'I'

   ii. tumi 'you'

   iii. xi 'he'

d. Possessive + Noun :

   i. mor kitap my book 'my book'

   ii. iar kitap his book 'his book/the book here'.

e. Noun + personal relational deictic

i. ma 'mother/my mother'

ii. mar 'your mother'

iii. mak 'his/her mother'

f. Quantitative determiner + noun :

i. gotei kitap

all book 'all books/the whole book'

ii. xOmOstO kitap

all book 'all books/the whole book'

g. prenominal adjective (ordinal) + Noun

prOthOm kitap

first book 'the first book(s)'

h. Restrictive clause + noun

tumi kowa xadhu

(by) you told story 'the story / stories you told'

i. Noun + numeral +quantifier(classifier)

kitap tini khOn

book three cl 'the three books'.

Goswami 1971 insists that there is a 'one deletion rule' which applies even in case of definite constructions involving the demonstrative. Consider the following examples:

(31)

a. xei - khOn kitap

that - cl book 'that book'

b. xei du - khOn kitap

that two - cl book 'those books'

c. xei/xi- zOn manuh

that - cl man 'that man'

d. xei/xi du - zon manuh

that two - cl man 'those two men'

All the constructions are treated to be parallel and the numeral E(k) "one" seems to be deleted in constructions (a) and (c).

Goswami 1971 also seems to indulge in generalisation following the descriptive terminology used primarily for English when he treats demonstratives, possessives and quantifiers as determiners. In all the following constructions, he glosses the first item as a determiner:

(32) a. ei tini-khOn kitap
dem three-cl book 'these three books'

b. ei kitap tini-khOn
dem book three-cl 'these three books'

c. mor tini-gusi pan
my three-cl betel leaf 'three units of betel leaves of mine'

d. mor pan tini-gusi
my betel leaf three-cl 'these units of betel leaves of mine'

e. gutei tini- kura zui
all three-cl fire 'all the three fires'

Since all the five expressions are undoubtedly definite, it is justified to treat gutei "all" in (32e) at par with ei "dem" in (32a) and mor "my" in (32c). In all the three expressions, the word order does not play any role in definiteness marking.

The most insightful of Goswami's observations is that all the quantifiers are nouns in the Deep Structure (i.e. underlyingly) and their surface realisation is determined by quantifier – transformations. This entails another important observation that almost all quantifiers (except the classifiers like ta and khOn) can occur as the head of a noun phrase, e.g. :

(33)

a. thoka - to daNor
cluster -cl big 'the cluster is big'

b. kaMhi - khOn dhunia
dish - cl. good 'the dish is good'

In a different environment they behave exactly like the classifier and they can contribute to definiteness marking, e.g. :

(34)

a. mas - kaMi
fish - dish 'the dishful of fish'

b. kol - thoka
banana - cluster 'the cluster of bananas'

We shall take up this issue in our comparative discussion on light nouns in chapter five.

Of all the works reviewed in this chapter, Goswami 1971 is the only one which is done in a framework of generative grammar. He works according to the Standard Theory of the late sixties and early seventies. We are not reporting his analysis since it involves a number of transformational rules which are not in use in the current theory of generative grammar. Nevertheless, his descriptions and his approach to the database are very useful for our purpose.

3.5. Changing camp and some more descriptions: Goswami 1982:

Goswami 1982 changes his stand from Goswami 1965 by calling the classifiers "difenitives". Like Kakati 1941, he places maximum stress on the postnominal use of classifiers and numeral classifier combinations. Besides he divides the classifiers into two groups: singular definitives and plural definitives which, according to him, function both as number morphemes and as equivalents of the English definite article the. Distributionally, the singular definitives are mutually exclusive with the plural definitives and they can be suffixed to all nominals including the numerals and pronominals of the third person. Goswami 1982 modifies his analysis of mutual exclusiveness of classifiers and 'plural markers' (Goswami 1965) by stating that singular definitives are mutually exclusive of plural definitives. The reason for calling both the types 'definitives' is to bring them under one homogeneous type. He rightly

observes their similar distributional pattern in definite expressions, but overlooks the fact that in the indefinite expressions his so-called plural definitives do not occur prenominally. This point will be taken up in the subsequent chapters of his dissertation.

There is a need for a theoretical explanation of the point Goswami raises in 1965 and reinforces in 1982, that all noun-numeral-classifier combination do not give a definite reading. He distinguishes two types. In the first type, the noun on the one hand and the numeral classifier combination on the other are used "syntactically as independent words in an utterance". These expressions are indefinite e.g.:

(35)

a. manuh du - zOn
   man two - cl '(any) two persons'

b. kitap dOh - khOn
   book ten - cl '(any) ten books'

The second type of constructions is definite where the numeral-classifier combination occur in phrases with some preceding nominal or prenominal e.g.

(36)

a. manuh – du-zOn
   man – two-cl 'the two persons'

b. kitap – dOh-khOn
   book – ten-cl 'the ten books'

In presenting the data, a hyphen (–) is used between the noun and the num-cl combination in the second type to show the distinction from the first type.

No new points are added regarding the 'singular definitives' i.e. the classifiers like zOn, khOn, pat, dal, to etc. in Goswami 1982. He gives a fresh analysis of plurality in the language. He states that the plural morphemes such as bor and bilak express plurality and definiteness at the same time. They show the following combinations:

(37)

a. manuh-bor / manuh-bilak
   man-cl / man-cl 'the men'

b. goru-bor / goru-bilak
   cow-cl / cow-cl 'the cows'

c. porial-bor / porial-bilak
   family-cl / family-cl 'the families'

d. xon-bor/ xon-bilak
   gold-cl / gold-cl 'large quantity of gold

e. pani-bor/ pani-bilak
   water-cl / water-cl 'large quantity of water'

Goswami 1982 seems to overgeneralise the nature of the so-called 'plural definitives' by not distinguishing the behaviour of bor / bilak in (37a--37c) where they occur with countable nouns and (37d –37e) where they occur with mass nouns. Besides many native speakers do not agree that panibor in (37e) means "large quantity of water". Even if it does, at least for us, there is no justification of why "large quantity" should be treated at par with plural.

One more case of overgeneralisation is the inclusion of an adjective–classifier combination in the list of noun/pronoun–classifier combinations. See the following:

(38)

bhal bor
good cl 'the good ones'

Goswami 1982 does not mention anything about why an adjective-classifier combination should be treated as a nominal expression and what is the source of the understood noun indicated in "ones" in the gloss.

The combinations of pronouns and classifiers is another area which could have got some more consideration. They are left only as glossed data, e.g.:

(39)

a. i-bor / i-bilak

pron- cl / pron-cl 'these (men or things)'

b. xi-bor / xi-bilak

pron-cl /pron-cl 'those (men or things)'

c. zi-bor / zi-bilak

pron-cl / pron-cl 'those who/which' (relative pronoun)

Goswami 1982 states that the indefinite plural or 'simple plurality' is expressed by the nominal alone or by addition of some independent nouns of multitude meaning 'many', 'more' etc. (He does not use the term 'quantifier' for such words), e.g.:

(40)

a. manuh mOre

man dies 'men die'

b. ialoi bohut 1Ora ahise

here-loc many boy came 'many boys have come here'

c. moi azi dher kitap kinilo

I today many book bought 'I bought a lot of books today'

Once again the English gloss seems to eclipse the linguist's analysis, especially regarding the expression in (40a) above. It is the idiosyncrasy of English language that its article feature (generic) is realised in the in-built plural form men in Men die, but in the singular form man in Man is mortal. The interaction of number and article features in English nominals is not very systematic. There is no scope for elaboration on this point here. The only point to be made here is that the reading of manuh as men in (40a) should have been treated only as a co-incidence and not as a general system working in Asamiya. There is a contradiction if it is said that bare nouns are plural and there are plural definitives in the language when both these items can combine with no sense of double plurality.

Goswami 1982 compares the use of hOMt and bilak, both of which seem to carry the sense of plural, in their cooccurrence with the personal common nouns. hOMt gives heterogeneous plurality and bilak gives homogeneous plurality, e.g. :

(41)

a. borua hOMt

Baruah cl 'Mr Baruah and his party'

b. dada hOMt

elder brother cl 'elder brother and others'

c. baruah bilak

Baruah cl 'the Baruahs' (the Baruah title holders)

d. dada bilak

elder brother cl 'the elder brothers'

Though it is said that with the third person pronouns the behaviour of hOMt is similar to that of bor and bilak , it is not mentioned that with third person feminine pronouns bor and bilak do not occur, e.g. :

(42)

a. i-hOMt

pron.cl 'these' (men or women, boys or girls)

b. xi-hOMt

pron.cl 'they'

c. ei-hOMt

pron.cl 'these (girls or women)'

d. tai - hOMt

pron.cl 'this girls or women'

e. *tai-bilak

f. *tai - bor

The items lok and xOkOl are both treated as plural morphemes but no further distinction is made regarding their distributional pattern. xOkOl is more frequent, at least with regard to cooccurrence with pronouns and common nouns, e.g. :

(43)

a. i-xOkOl / ehket-xOkOl

pron-cl pron-cl 'these ladies and gentlemen'

b. xi-xOkOl

pron-cl pron-cl 'those ladies and gentlemen'

c. bOndhu-xOkol

friend-cl 'dear friends'

In contrast, lok occurs only with a few pronouns and with no nouns, e.g.

(44)

a. tomalok 'you people'

b. aponalok 'you (respectful)'

c. eoMlok 'these gentlemen or ladies'

d. teoMlok 'those gentlemen or ladies'

Barring a few limitations, Goswami 1982 offers a lot of data just as Goswami 1965 does with enough scope for a linguist of the future to offer reanalysis. In this regard, Borah 1995 needs to be looked at as complementary to Goswami's work.

3.6. Classifiers for partitivisation: Borah 1995

Borah 1995 offers a significant account of Asamiya noun phrases which involve a numeral, a classifier and a noun. He uses the term "partitive" for the classifiers. He argues that grammarians like Goswami (U.N.) 1978 and Goswami (G.C.) 1982 have imposed English number system on Asamiya and remained conveniently silent about many constructions which give negative evidence to a hypothesis that Asamiya has numbers, singular and plural. Borah rightly observes that Number does not affect any part of speech in Asamiya including the noun. This implies that Asamiya does not have grammatical Number which could be visible in the morphology of agreement between the Noun and the Verb or the Adjective. The classifiers like zOn on the one hand and the ones like bor on the other, according to

Borah, are not number markers but 'partitives' which afford a means of imposing number on non-count nouns in Asamiya. However, he does not elaborate on what should be the nature of this 'number', which is imposed on non-count nouns in Asamiya. We try to give an analysis of this in the fourth chapter.

Borah relates the issue of classifiers (partitives) to pragmatic and grammatical countability. Following Huddleston 1984, he suggests that countability in 'natural world' or extra-linguistic world is different from the linguistic reality of a language. For example, the object 'onion' is countable in the extra-linguistic world but the noun which stands for 'onion' in Arabic is not countable in the linguistic reality of Arabic. It is the shape of different objects, especially their boundedness (property of having definite boundary) which gives countability to the objects in the natural world. But different languages have different linguistic strategies of indicating the countable nouns. The grammar of a language determines the countability of a noun on the basis of interpretation regarding 'individuated' or 'mass'. A language may have means of counting a non-count noun, for example English may treat a non-count noun blood as countable in an expression like, two bottles of blood with the help of a partitive bottle. So far as Asamiya is concerned, nouns have only the citation form, which is inherently neutral regarding number. They indicate semantic singularity or plurality when they enter into some partitive construction with the help of partitive subroots (classifiers) such as zOn or bor.

Coming to his treatment of data, Borah contests the earlier work of Kakati 1941 and Goswami (G.C.) 1982 while declaring that zOn by itself is not a definitive. Its role in definiteness marking depends on its position in the noun phrase as the following two sets can be compared:

(45)

A.a. E - zOn alOhi
one - cl guest 'one guest'

b. tini - zOn alOhi
three - cl guest 'three guests'

c. kei - zOn alOhi
some - cl guest 'some guests'

B.

d. alOhi - zOn
guest - cl 'the guest'

e. alOhi tini - zOn
guest three - cl 'the three guests'

f. alOhi kei - zOn
guest some - cl 'the guests'

The expressions under set A are indefinite and those under B are definite.

Borah suggests that postnominal use of bor is not the only means of expressing plurality (semantically), a numeral – classifier combination may also give the same result as seen in the following:

(46) a. alOhi - bor
guest - cl 'the guests'

b. alOhi kei - zOn
guest few - cl 'the guests'

He also mentions that though zOn and bor are partitives, they do not share environments other than N___. The item bor does not occur with a cardinal numeral like tini "three" or an imprecise quantifier like kei e,g, :

(47)

a. *tini - bor alOhi
three cl guest

b. *alOhi kei - bor
guest few cl

Borah attests the possibility of a modifier of a quantifier in between the noun and the imprecise quantifier-classifier combination, e.g :

(48)

a. alOhi bhale-kei-zOn
guest good-some-cl. 'the guests who are quite a few in number'

b. alOhi OlOp-kei - zOn

guest few-some-cl 'the guests who are less in number'

Borah's treatment of container nouns like kOlOh "jar" at par with the classifiers is similar to that of Goswami (A.C.) 1971. Both the classifier and the container/measure noun are 'partitives' for Borah whereas both of them are 'quantifiers' for Goswami 1971. Irrespective of the difference in terminology, the fact remains that in Asamiya a classifier, a mass quantifier (partitive) and a container noun behave exactly the same way in deriving definite and indefinite constructions. Note the environments of the classifier zOn in (45) above and compare them with the following :

(49)

A.

a. E - khini pani

one - mw water 'one measure of water'

b. tini - khini pani

three - mw water 'three measures of water'

c. kei - khini pani

some - mw water 'some measures of water'

B.

d. pani - khini

water - mw 'the one measure of water'

e. pani tini - khini

water three - mw 'the three measures of water

f. pani kei - khini

water some - mw 'the measures of water'

Goswami (A.C.) (personal communication) does not approve of the data in (b), (c) (e) and (f) However, the parallelism between classifier constructions and container/measure word constructions stands valid. Consider the following data presented by Borah 1995:

(50)

A.

a. E - kOlOh pani

one - jar water 'a jar of water'

b. tini - kOlOh pani

three jar water 'three jars of water'

c. kei - kOlOh pani

few jar water 'a few jars of water'

B.

d. pani - kOlOh

water - jar 'the jar of water'

e. pani tini - kOlOh

water three - jar 'the three jars of water'

f. pani kei - kOlOh

water few - jar 'the few jars of water'

Linguists who are not familiar with Asamiya structures, tend to make a mistake by calling the expression in (50d) above a nominal compound. It does not happen with Borah, since he correlates his native speaker's intuition with formal linguistic judgement.

3.7. Advocating for Number: Barman and Dutta Baruah 1997

Barman and Dutta Baruah 1997 offer a somewhat independent analysis of Number in Asamiya. Depending mainly on the morphology of nominal constituents, they claim that Asamiya has a binary number system which is restricted only to the nouns and is not relevant for verbs and adjectives. They suggest that though there is no number agreement in the syntax of clauses and phrases in Asamiya, the discussion of the issue of Number must form a necessary component of an Asamiya grammar. They find the morphological distribution of singular and plural is very real and there exists as kind of 'hidden binding' between demonstratives and nouns in terms of number.

The items bor, bilak and hOMt are treated at par with xOkOl, lok, brindO etc. and all of them are called plural morphemes by Barman and Dutta Baruah 1997. They maintain that the question of plurality or singularity arises only when the reference is specific. Non-specific or generic reference is not sensitive to singular/plural distinction. The following data from the work show the operation of the 'plural morphemes'as they are called:

(51)

a. 1Ora - bilak
   boy - pm (cl) 'the boys'

b. goS - bOr
   tree - pm (cl) 'the trees'

c. ma - hOMt
   mother -pm (cl) 'mother and others'

d. xikkhOk - xOkO1
   teacher - pm 'the teachers'

e. satrO - brindO
   student pm 'the group of students'

f. tarOka - mOndOli
   star - pm 'the group of stars'

g. kendrO - xOmuh
   centre - pm 'the centres'

h. puspO - raji
   flower - pm 'the cluster of flowers'

i. pOura - mOkha
   ant - pm 'the group of ants'

Barman and Dutta Baruah do not extend the discussion further to see the difference in behaviour of these 'plural markers' especially between (a), (b) (c), (i) and the rest, that is the ones of indigenous origin and the others of Sanskrit origin. In sister languages Bangla and Oriya also there is an apparent similarity shown by the morphological items of these two origins. But it is seen that their syntactic behaviour is also different

and so is their role in definiteness / specificity marking. The authors do not elaborate on that; they only mention that the expression in (g) does not mean definite. However it would be relevant to see whether the items of Sanskrit origin affect the morphology and those of indigenous origin operate in the syntax.

The morphology–based treatment of all items with any sense of plurality ends up in the loss of distinction between the collective nouns and the other items shown in (51) above. Though the collective nouns are shown to be the 'nouns' of multitude proper, the combinations of a common noun and a collective noun are treated as results of a morphological process rather than a syntactic derivation. Thus all the following expressions are shown to be parallel to the ones in (51) above:

(52)

a. sOrai - zak
   bird - flock 'the flock of birds'

b. gOru - pal
   cow - herd 'the herd of cows'

c. phul - thopa
   flower - bunch 'the bunch of flowers'

d. tamol - thok
   betelnuts - bunch 'the bunch of betelnuts'

It is mentioned in course of reviewing Bora 1995 and Goswami 1971, that only the native speakers (who are trained linguists too) can analyse a combination of noun–collective noun as a definite construction with the noun being the semantic head and not as a compound where the collective noun would have been the semantic head. Barman and Dutta Baruah also, despite their stipulation of the overall treatment to morphology, do not consider these combinations as compounds; rather they acknowledge them to be definite constructions with the first noun as the semantic head.

Through the classifiers to, khOn, zOn, dal etc. are called definitives, their role in classification is also not ignored, as it is evident from the endnote where the authors suggest that these items should be called 'definitive cum classifiers'. They do not do

so for the items bor and bilak which are also treated as classifiers by others. Barman and Dutta Baruah seem to imply that bor, bilak and other items of this sort do not contain any other semantic feature than plurality. For plural constructions involving classifiers the role of kei is looked into. Both kei and the following classifier are shown to be suffixed to a noun in a plural expression, e.g. :

(53) a. soali - zOni
girl - cl 'the girl'

b. sabi - pat
key - cl 'the key'

c. soali kei-zOni
girl few – cl 'the particular girls'

d. sabi kei - pat
key few - cl 'the particular keys'

However, no explanation is given to show why the 'particle' kei, which indicates plurality, occurs between the noun and the classifier. Its suffixal nature is also questionable since an expression like *soali kei does not exist. The authors also dismiss the idea that kei is an infix.

The morphology based description of nominal expressions cannot deal with the nature and operation of kei, simply because it has a role to play in definiteness marking through a syntactic process. To elaborate, if the following expressions in (a) and (b) the are, results of a morphological process, one cannot explain why kei in (c) and (d) should be suffixed to the head; noun first and then allow the collective noun to be suffixed – and the definite sense remains unaffected, e.g. :

(54) a. paro - zor
pigeon - pair 'the pair of pigeons'

b. narikOl - thok
coconut - bunch 'the bunch of coconuts'

c. paro kei - zor
pigeon few - pair 'the particular pairs of pigeons'

d. narikol kei - thok
coconut few - bunch 'the particular bunches of coconuts'

While dealing with this data also, the authors overlook that kei is dependent on zor "pair" or thok "bunch" (and all such items) since *parokei or *narikolkei are impossible. It therefore remains unexplained what makes the addition of zor "pair" or thok "bunch" obligatory once kei is added. However it becomes obvious that the classifiers and collective nouns behave similarly in constructions involving kei in definite expressions.

The most debatable point made by Barman and Dutta Baruah is that the Demonstratives in Asamiya can be pluralized and this pluralization is in concord with the predicate noun in sentences. The pluralized demonstrative, a combination of demonstrative and classifier, is said to have a binding with the predicate noun which is not visibly 'pluralized' and this binding is 'hidden', e.g.:

(55)

a. xei - bor goru
   dem-cla cows 'These are cows'

b. xei - xOkO1 xikkhok
   dem - cla teachers 'These are teachers.'

c. xou - bor gaoM
   dem - cl village 'Those are villages.'

d. xou - bilak OxOmiya lOra
   dem - cla Assamese boy 'Those are Assamese boys.'

The authors argue that since in the following constructions (they call them 'sentences') either the demonstrative or the noun seems to be pluralized, it bears evidence for number agreement between demonstratives and nouns in Asamiya, e.g.

(56)

a. xou - bor 1Ora
   dem - cl boy 'those boys'

b. xou 1Ora bor
   dem boy cl 'those boys'

This observation is questionable simply because they are not sentences but noun phrases and they are essentially different from the other four shown in (55)

above. A pair of sentences which include demonstratives and classifiers are presented to show that there also exists a 'binding' gender between the demonstrative and the noun and this is parallel to the number agreement discussed earlier, e.g.

(57)

a. xei - zOni soali dhunia
   dem - cl girl beautiful 'that girl is beautiful'

b. xei soali-zOni dhunia
   dem girl - cl beautiful 'that girl is beautiful'

3.8. Chapter conclusion:

The Asamiya database itself seems to be a useful tool to give a commentary on the Bangla classifiers and their use in the nominal expressions. The review of the earlier descriptions show that we need to reflect on some broad issues related to classifier languages in general. Then we should see how Bangla and Asamiya are similar as users of classifiers in nominal expressions. In this regard, we need to examine first if there is Number in these two classifier-using languages. Subsequently, we shall attempt a discussion on the role of classifiers in the syntax of quantification in the next chapter. This should take care of the disparity in terminology; we shall see that both the terms "quantifier" and "partitive" as used by Goswami 1971 and Borah 1995 respectively, can be appreciated . As classifiers in all (classifier-using) languages behave mostly as lexical items with some semantic content, we have to offer a theoretical commentary on how the classifiers are organized in the lexicon of a language. As regards the language boundary between Bangla and Asamiya, the first impression from the above reviews is that the Asamiya classifier system is richer than the Bangla one. But we should not be restricted only on that point, because our concern is the whole of nominal domain. We shall discuss the issues related to parametric variations in the final chapter where we concentrate on the role of classifiers in relation to demonstratives and light nouns. We shall also compare the nature of word-order variations for definiteness marking in numeral-classifier constructions.

Chapter Four

The Common Ground : Aspects of Classification and Quantification

4.0. Introduction:

The overall scheme of the present work being a comparison of Asamiya and Bangla nominals, this chapter focuses on one side of that comparison: the exposition of common facts about the nominals of the two languages. In order to do that effectively, this chapter is planned on dual perspectives – typological and generative. The first section of this chapter gives a typological account of the nominals in classifier-using languages and the next three sections offer a generative account of Bangla and Asamiya nominals (DPs) with the help of conventionalised analytical means that have been current ever since the notion of DP-analysis was introduced.

In this chapter, we shall explore the common ground of analysing the nominal constructions of Bangla and Asamiya prior to seeing the applicability of DP-analysis in determining the nominal phrase structure. This chapter is divided into four sections. In the first section, there is an attempt to understand the typological categorisation of nominal expressions in numeral classifier languages. This is to justify why Bangla and Asamiya should be treated as similar so as to apply some common theoretical treatment to both of them. From the second section onwards, the typological accounts would be translated in terms of different components of DP-analysis, a component of Principles and Parameters approach of generative grammar. Since our basic assumption on the architecture of the grammar of a language is based on the minimalist program designed by Chomsky 1995, we shall discuss two aspects of grammar: the lexicon and the computational syntax. The second section is devoted to the discussion of the lexicon of Bangla and Asamiya and the organisation of classifiers there. The third section reflects on some general

issues related to classification, referentiality, number and gender in nominal constructions. The fourth section is complementary to the second section. We discuss the general syntax of quantification in Bangla and Asamiya highlighting what makes the two languages similar.

4.1. Typological considerations:

Typological studies and generative grammar are undoubtedly distinct schools of investigation. But there could be at least one point of convergence of their goals: both aim at finding structural generalisations of linguistic constructs across languages. The only difference is that generative grammar extends the understanding of constructional similarities and distinctions to universal principles of cognitive processing involved in language acquisition as the realisation of innate knowledge of language whereas typological studies are confined to the level of observations. Nevertheless, both the schools invest a considerable amount of academic energy in finding out structural similarities while organising a comparative database. The typological perspective is used here to synchronically map Asamiya, on which not much work in the Principles and Parameters approach is reported so far as the nominal constructions are concerned. A comparative study of the nominal constructions of two genetically related and spatially proximal languages seeks support from typological understanding which will be useful for offering adequate structural descriptions prior to theoretical analysis. We include the typological considerations not to dilute a theoretical narration, but to consolidate hypotheses and to justify theoretical decisions taken from step to step.

In this section we shall present some relevant typological information on the classifiers and classifier languages of the world. While agreeing in principle to the argument presented in Dasgupta and Bhattacharya 1993 that grammaticalised items class and gender are mutually exclusive and a particular language chooses only one of them, the discussion in this section is related to the facts of classifier-using languages. At the end of this section, some universal facts regarding the

environment of classifiers would be presented. The works referred to are organised thematically, with little adherence to their chronological order.

4.1.1. Categorisation of classifier languages: Allan 1977:

The investigation of Allan 1977 is done on the basis of data from more than fifty classifier-using languages which are unrelated and spatially separated. In the universal scenario, he defines classifiers on the basis of two criteria: (a) their occurrence as morphemes in surface structures under specifiable conditions, and (b) their semantic content when some salient perceived or imputed characteristic of an entity referred to by an associated noun is denoted by a classifier. He distinguishes the characteristics of classifier languages and identifies four types. The proposal that every classifier is composed of one or more out of seven categories of classification has made it easy to understand the meaning relations of a classifier and a noun. These categories are: (a) material, (b) shape, (c) consistency, (d) size, (e) location, (f) arrangement and (g) quanta. Allan 1977 categorises the classifier languages of the world into the following four types:

(1) a. Numeral classifier languages,
b. Concordial classifier languages,
c. Predicate classifier languages,
d. Intra-locative classifier languages.

In a Numeral classifier language, the use of a classifier is obligatory in many expressions which involve quantification. It is however not necessary that in a language of this type, all the nouns are classified. For example, in Burmese and Vietnamese, there are many nouns which do not occur with classifiers. The following Thai data is furnished to show the environment of a classifier:

(2)

a. khru laj khon
teacher three person 'three teachers'
b. ma si tua
dog four body 'four dogs'

c. ma tua nan
dog body that 'that dog'

d. tua nan
body that 'that' (animal, coat, trousers or table)

e. si tua
four body 'four'(of them)

Considering that in expressions like (2c) and (2d) there are no numerals involved, Allan 1977 admits that the term 'numeral classifier' is a misnomer, but it serves the purpose of identifying this type of language. As is evident from the expressions in (2c) and (2d), numeral classifiers occur in anaphoric and deictic expressions also in addition to occurring in quantificational expressions such as (2a), (2b) and (2e). However, Allan does not discuss why a classifier follows a numeral as in (2a), (2b) and (2e) and it precedes a demonstrative as in (2c) and (2d). He does not explore the syntactic significance of this difference probably because he restricts classifiers to a system of morphology.

In the concordial classifier languages, classifying formatives are affixed (usually prefixed) to not only the nouns but also to their modifiers and predicates. Languages of Bantu and semi-Bantu groups in Africa and many Australian languages are of this type. One of Allan's examples is the following from the Bantu language Tonga:

(3)

ba-sika ba-ntu bo-bile
cl-have-arrived cl man cl-two 'two men have arrived'

Allan 1977 mentions that it is controversial whether Bantu languages could be given the status of classifier languages. But what is controversial in Allan's time leads later theorists to draw insightful conclusions. For example, referring to the prefix-type classifiers of the Bantu family which show agreement with the noun class they are attached to, Dasgupta and Bhattacharya 1993 propose that this phenomenon be regarded as gender and not class. This tendency towards agreement on the part of

certain classifiers gives evidence for their claim that class and gender are different manifestations of the same grammatical entity.

Allan's typological distinction between numeral classifier languages and the concordial classifier languages helps us arrive at a decision in the theoretical presentation of the nominal phrase structure in a numeral classifier language such as Bangla or Asamiya. There would be typological justifications for not including an agreement phrase in the nominal structure of these two languages which are numeral classifier languages.

In a predicate classifier language such as Navajo, a verb of motion/location has two parts: one, a theme such as 'give' or 'lie' and two, a stem which varies according to the characteristics of the object which participates in an event as actor or goal. Consider the following example:

(4) beeso si - pa
money perfect(cl) lie (of round entity) 'a coin is lying there'.

The item si which is attached to the verb denotes the round shape of a common noun beeso "money" and the overall reference is to 'a coin'.

Allan 1977 formulates the following principle which is meant to be universal:

(5)

A classifier concatenates with a quantifier, locative, demonstrative or predicate to form a nexus that cannot be interrupted by the noun which it classifies.

This principle is argued to be valid in concordial classifier languages since the classifiers are bound by affixation to the noun, its modifiers and predicates. This principle also works for the predicate and intra-locative classifier languages.

Allan 1977 further groups the numeral classifier languages into four types on the basis of the relative frequency of permissible sequences of quantifier, classifier and noun. The proposed order is the following:

(6)

a. Q-Cl-N : Amerindian languages, Bangla, Chinese, Semitic languages, Vietnamese

b. N-Cl-Q : Burmese, Japanese, Thai

c. Cl-Q-N : Kiriwina (Oceanic)

d. N-Cl-Q : Louisiade Archipelago (Oceanic)

This classification stimulates us to examine data (as much as one can gather) from the languages which permit the first two sequences, i.e. Q-Cl-N and N-Q-Cl. We have seen in chapters two and three that these two abound in Bangla and Asamiya. Allan's access to data is indirect and hence non-penetrative. That is why his study misses the fact that these sequences are not mutually exclusive, especially in Bangla and Asamiya.

4.1.2. Typological categorisation of Bangla and Asamiya:

Burling 1965, while introducing the numeral classifiers, mentions that Bangla and Asamiya (Bengali and Assamese respectively in his terms), the two easternmost Indic languages resemble the other South Asian languages in hosting the numeral classifiers. A direct quotation from his classic text seems to be more effective than presenting his ideas in reported speech:

(7) "In many of the languages of South East Asia, a number is never used without being accompanied by one of the special class of morphemes, known as numeral classifiers. The choice of classifiers depends upon the type of object which is being counted. Thus typically a special classifier is used for counting people, and it is never enough simply to say the equivalent of "one woman", but instead, one must also include the classifier for people. The resulting

phrase has three morphemes: noun to be counted, number and classifier. Languages differ in the order in which the elements of a numeral phrase must be given, but the manner in which the phrases are used is remarkably uniform in a large number of languages. Numeral classifiers are found throughout South East Asia, in the languages of all genetic affiliations – Thai, Mon-Khmer, Tibeto-Burmese and Malayo-Polynesian and they are even found in the easternmost Indic languages Bengali and Assamese and in Chinese."

This excerpt clearly brings out two aspects of the use of a classifier. One is to fulfil a syntactic requirement of supporting a numeral or quantifier in a quantified nominal expression. The other aspect is that a numeral classifier has a descriptive function since there exists a wellformedness condition on the basis of selectional appropriateness of cooccurrence -- some kind of compatibility between the classifier and the quantified noun. It will be discussed later how Asamiya nominals show this duality in a more extensive way than Bangla.

Burling's categorisation of Bangla and Asamiya with Chinese leads the present study towards consulting the works on Chinese such as Tang 1990, Cheng and Sybesma 1998 and 1999 and Li 1999 to examine their patterns of reasoning in theoretical analysis of data which involves classifiers in environments reminiscent of those in Bangla and Asamiya.

4.1.3. Typological neighbourhood: Some Burmese facts:

The reference to some Burmese facts is felt necessary because this is a language of a country (Burma, now called Myanmar) which is adjacent to the geographical areas where Bangla and Asamiya are spoken. There is a long history of interaction between the people of Burma and Eastern India (prior to India's Independence and the division of Bengal in 1947) till the first half of 20th century. A long course of sociolinguistic acculturation of Burmese and some dialects of Bangla and Asamiya has been a historical reality. We should look at some facts of Burmese because among all the neighbouring languages of Bangla and

Asamiya,Burmese shows the widest use of classifiers. It has more than two hundred classifiers in its vocabulary. A thorough diachronic account might trace the origin of some of the Asamiya classifiers in Burmese. Though in Allan's secondary categorisation numeral classifier languages Burmese belongs to a different set from Bangla (see (6) above), we decide to look at the Burmese facts since they show a wide range of the use of numeral classifers.

Hla Pe 1965 mentions that the earliest description of numeral classifiers is available in a book, A grammar of the language of Burmah written by Lieutenant Thomas Latter in 1845. It gives the following desription of classifiers:

(8)

> "In compounding a numeral with a noun, the Burmese never use a simple numeral, as 'one man', but employ, as auxiliary affixes, words or terms signifying either the class to which the name belongs, the use to which it is put, or some shape, form or idea to which it may have some resemblance, real or otherwise. These affixes may be styled generic, that is descriptive of some class or kind. The term numeral affix would be incorrect; a numeral affix being one that points out the number of the root, to which attached."

Hla Pe 1965 mentions that the scholars who described the Burmese classifiers after Latter 1845 gave different designations to the classifiers. Each of these is self-explanatory and each highlight a particular aspect of the use of classifiers. These terms are: numeral auxiliaries, numeral generic affixes, numeratives, classifiers, numeral affixes, numeral classifying adjectives, and numeral classifiers.

Hla Pe categorises items generally known as 'classifiers' into three types. They are: classifiers, quantifiers and repeaters. But his categorisation does not offer anything new to a study of syntax of these items. This is so because all the three types have the same syntactic environment as seen in the following data:

(9)

a. lu tə̀ yau?
   man one cl 'one human being'

b. shaŋ tə diŋ

rice one bushel 'one bushel of rice'

c. paŋ tə ŋouŋ

flower one bud (repeater) 'one flower bud'

The importance of the above data to the present study is that it shows one general principle related to classifiers and their equivalents working in languages with narrow typological differences. The language which consistently uses a combination of a numeral and a classifier (or its equivalent) to the right hand side of the noun shows a similarity with the language which uses such a combination to the left hand side of the noun – the classifier and the container noun are mutually exclusive. Only one of them can be combined to a numeral. This typological information would help the present work in a theoretical treatment of numerals, classifiers and container nouns. In chapter five, we treat classifiers and container nouns as lighter varieties of nouns.

Some Burmese data from Hla Pe 1965 can also support a position taken in the later part of this chapter where a few terminal numerals are treated as equivalent to classifiers for occupying the classifier slot, as shown below:

(10)

a. `cuŋ ` θouŋ zɛ

island three ten 'thirty islands'

b. lu ` lɛ zɛ

person four ten 'forty people'

It is a characteristic of a classifier language that the use of terminal numerals as classifiers works on a mathematical principle – the count value of the classifier/terminal numeral has to be multiplied by the number indicated by the numeral combined for the reading of actual number.

4.1.4. Facts form a spatially unrelated classifier language: Vietnamese:

Though according to Allan's (1977) classification (see (6) above) Vietnamese is stated to be similar to Bangla, since both of them show preference for a Q-cl-N order, there is nonetheless a fundamental difference between Vietnamese and Bangla (and also Asamiya): namely, Vietnamese is an isolating language. Loebel 1994 reports that there are no grammatical means which could decide the lexical class of a given item – it has to be determined by distributional criteria. The lexical class of verbs can take two tense markers indicating either 'anterior' or 'subsequent' (not in the standard sense of past, present and future) only when the time reference is not available from the context. For the lexical class of nouns, there are two substantival elements, namely a sentence initial phrase marker and a demonstrative complement. About the role of classifiers in a nominal construction, Loebel's argument in favour of the following gives a good picture:

a. numeral classification in Vietnamese is based primarily on distributional criteria as a general principle
b. the count-mass distinction can be examined on the basis of whether an item can be used in a given syntactic slot.

Unlike Bangla and partly unlike Asamiya, Vietnamese has no lexical class specifiable as the classifier category. One and the same noun may function sometimes as a classified noun and elsewhere as a classifier. This can be understood from the following data:

(11) a. cai cay
cl tree/plant 'a tree/plant'

b. cay rau
cl vegetable 'a vegetable plant'

c. rau chau
cl celery 'a celery'

With the help of the above data Loebel 1994 argues that the notion of classifier is not absolute. A certain noun's becoming a classifier is relative to a classified noun, when the second stands in a taxonomic relation with the first. The word cay is a classified noun in (11a), but it is a classifier in (11b). The semantic difference between a classifier and a classified noun is that the former denotes a class whereas the latter denotes a subclass. The words cai and cay can indicate the existence of a property which is inherent to the meaning of the classified noun. The classifier, while used in a sequence of the format numeral-classifier-noun, designate a class of a corresponding subclass – apart from being used as a unit counter, e.g.,

(12)

a. hai cai cay
   two cl tree/plant 'two plants'

b. hai cay rau
   two cl vegetable 'two vegetables'

c. hai quyen sach
   two cl book 'two books'

d. hai sach tien-tuyet
   two book novel 'two novels'

The fact that measure words and classifiers are manifestations of some nominal entity is true across the classifier languages even though they are not related to each other. In Vietnamese, just as is in Bangla and Asamiya, a measure phrase (i.e. a combination of a numeral and a classifier) occurs in an environment which is identical to that of a classifier phrase (a combination of a numeral and a classifier). Each of these phrases is used prenominally, e.g,

(13)

a. mot can ca
   one pound fish 'a pound of fish'

b. mot con ca
   one cl fish 'one fish'

However, Loebel 1994 argues that the connection between the abstract measure word and the measured noun is not as strong as that of a classifier with a classified noun. The first sequence can be interrupted by a stative verb like day 'to be full of', e.g.,

(14) mot lit day sua
one litre full milk '(exactly) one litre of milk'

Given the gloss of the word day as "full" it is not very obvious why it should be called a 'stative verb'. We need to see if it has the same function as of in the English expression one litre of milk or as vol in the following Dutch expressions:

(15)

a. een bus vol (van die) toeristen
a bus full (of those) tourists
b. een glas vol (van dat) bier
a glass full (of that) beer (Data from Vos 1999; pp. 241)

Some Vietnamese facts are enlightening for our present work in deciding numerical count units which have the count value of more than one and count words like dozen , pair etc. At the outset, the first type is a numeral by itself such as ten or twenty (we can call it a terminal numeral such as the one in the Burmese data in (10) above), but the second type of word has a numerical value such as two or twelve, which is not a terminal of ten. In Vietnamese, a numeral can combine with another numeral, implying a multiplication of the two and then the combination takes a classifier which has the count value 1 (one), e.g.,

(16)

numeral	cl	noun	
hai-chuc	cai	ban	
two-ten	cl	table	'(approx) twenty tables'

In a second case, a word which stands for 'dozen' takes the classifier slot, instead of the second numeral's slot and thus blocks any classifier (which has the count value 1) from occurring, e.g.,

(17)

numeral	cl	noun	
hai	chuc	ban	
two	dozen	table	'two dozen tables'.

In Vietnamese, a pure numeral such as mot "one" or hai "two" shows clearly distinct behaviour from chuc "a dozen/approximately ten". This is true of other classifier languages also. A pure numeral can be combined with a mass noun with the help of a partitive noun in between, e.g.,

(18)

a. * mot chuk vang
   one dozen gold
b. mot dong vang
   one heap gold 'a heap of gold'
c. hai cuc vang
   two lump gold 'two lumps of gold'

The distinction between numerals like 'one' and 'two' and count words like 'dozen' and 'pair' is applicable for Bangla and Asamiya also.

4.1.5. Greenberg's observations:

Greenberg 1972, in his broad typological approach to numeral classifier languages, makes an attempt at a preliminary definition of a classifier language in terms of the existence of a particular syntactic construction. Taking English as a reference point, he reports that in most of the South-East Asian languages as well as in languages of the other parts of the world, an English phrase such as 'five books' is rendered in translation by a phrase which contains three items, instead of two. They are a numeral for 'five', a numeral classifier, and a noun for 'books'. The second item has two functions. In its syntactic function, it occurs in a numeral phrase; in its semantic function, it provides a semantic classification of the head noun. So, the

major criterion for defining a numeral classifier language is the presence of a syntactic construction in which a classifier appears.

Greenberg 1972 informs us that the classifier constructions are subject to many restrictions on the cooccurring numerals which vary from language to language. Whereas in some languages such as Khasi and Tat the number 'one' does not allow a classifier and in some other such as Malto only numerals larger than two allow classifiers, it is a common feature that classifiers do not occur with 'higher units of the numerical system and their multiples' e.g. 10, 20, 60, 100, 300. However, languages vary regarding the fact that classifiers are not confined syntactically only to numerical constructions. A table like the following may be used to summarise the use of classifiers in constructions other than numerical phrases in different languages:

(19)

Language	Environment
Thai	With demonstratives and quantifying adjectives
Kiriwina	With demonstratives and some adjectives
Dioi (A Thai language)	With noun, in absence of other modifiers
Jacaltec (A Mayan language)	As a pronoun with anaphoric function

Apart from these language-specific uses of classifiers, it is universal that a language with numeral-classifier construction permits the deletion of the head noun in two contexts – one, when the head noun has been previously mentioned and two, when its reference can be understood from the non-linguistic context.

The surface level similarity of a measure construction and a count construction has led most linguists towards describing them as 'subtypes of the same fundamental construction'. Greenburg considers the following set of data from Thai and studies the contrast:

(20)

a. b`uri s) ŋ s). ŋ
cigarette two packet 'two packets of cigarette'

b. b`uri s) ŋ lŏ
cigarette two dozen 'two dozens of cigarette'

c. b`uri s) ŋ muan
cigarette two cl 'two cigarettes'

The count construction in (20c) shows the same properties as the measure constructions in (20a) and (20b). In a numeral classifier language such as Thai, what is peculiar is a particular mode of quantification which can be called 'counting by units'. Greenberg distinguishes 'numerals proper' (which go with individual classifiers) used for counting by units from other modes of quantification. The second type may include words like 'pair' and 'dozen'.

Greenberg 1972 makes a number of synchronic generalisations about the numeral classifier languages. One such generalisation is that there is no compulsory expression of nominal plurality; plurality there is at the most 'a facultative expression'. This generalisation is based on the following hypothesis made by Sanches 1971:

(21)

If a language includes in its basic mode of quantitative expressions numeral classifiers, then it will also have facultative expression of the plural. In other words, it will not have obligatory marking of the plural on the nouns.

Besides this, Greenberg 1972 makes an observation which will have a direct impact on syntactic phrase structure phenomena in a generative framework. In furtherance of designating a numeral-classifier-noun combination as a syntactic structure whose occurrence typifies a numeral classifier language, he lays out the immediate constituent structures of these three items. In an ordered sequence, first the numeral goes with the classifier and then the numeral-classifier combination as

a whole enters into a more remote construction with the enumerated noun. On the basis of this, the following synchronic generalisations are made:

a. The three elements, Q(uantifier), Cl(assifier) and N(oun) can give six possible word orders. Of these, only four are available in the languages: (i) Q-Cl-N, (ii) N-Q-Cl, (iii) Cl-Q-N, (iv) N-Cl-Q. The immediate constituent structure described above does not permit the word orders Cl-N-Q and Q-N-Cl because the noun intervenes between the quantifier and the classifier.

b. Frequent variation is available within languages between the orders (i) and (ii) and the orders (iii) and (iv). The relative order of quantifier and classifier remains constant but the combination may vary; it can be placed either before or after the head noun.

c. That there is a close connection between classifier and a quantifier can be evidenced prosodically. The combination takes one accent and it sometimes looks like a fused form. Many analysts consider it to be a single 'word'.

d. The Q-cl combination is often separated from the enumerated noun.
All classifier languages permit the anaphoric construction of Q-cl without overt expression of the noun.

Another synchronic universal is that if a numeral classifier is used in non-quantifier constructions, one of these (often the only one) is the demonstrative. That the combination of numeral classifier and demonstrative occurs in geographically separate languages shows that their development must have been historically independent. Usually there is one plural classifier which can replace an ordinary classifier in a demonstrative construction. This is unlike a numeral construction. The following Mandarin (Chinese) data shows how it works:

(22) a. i běn shu
one cl book 'one book'

b. san běn shu
three cl book 'three books'

c. che běn shu
this cl book 'this book'

d. che hsie shu
this cl(pl) book 'these books'

The expression in (22d) is essentially different from (22b), though the English glosses do not show it very distinctly. The difference is due to the notional plurality shown by the classifier in (22d). To cite examples of the mutual exclusiveness of unit counting classifiers and the 'plural classifier' Greenberg uses the following Bangla data:

(23) a. paMc khana boi
five cl book 'five books'
b. boi-khana
book- cl 'the book'
c. boi-gulo
book-cl 'the books'

As is obvious from the references, Greenberg's source of information on Bangla is Chatterji 1926. He calls the classifiers in (23b) and (23c) suffixal definitives (following Chatterji) when they follow a noun. Withholding the acceptance of the term, Greenberg's observation stands valid for the present work.

4.2. Classifiers and the organisation of the lexicon:

The minimalist program in the principles and parameters approach of generative grammar initiated by Chomsky 1995 is based on the assumption that a language consists of a computational system and a lexicon. In their coordinated operation, linguistic expressions are formed by the computational system by selection and integration of elements that are specified by the lexicon. There are two major steps in the derivation of a particular linguistic expression – (a) choice of items from the lexicon and (b) a computation which constructs a pair of interface representations (π, λ) where π stands for the PF component and λ for the LF component. While supplying inputs to the computational system, the lexicon excludes items which are

predictable by principles of UG or by specific properties of the language concerned. It provides only the information required by the computational system without redundancy i.e. without processes internal to the lexicon. These two constituents are related by a system of representation (D-structure) which can express lexical properties in a form accessible to the computational system.

The items in the lexicon belong to four lexical categories – Noun, Verb, Adjective and Particle. The units of the lexicon are lexical elements. Each lexical element is an articulated system of features which specifies all the syntactic, semantic and phonetic properties, which are idiosyncratic to it. In other words, the lexicon of a language is a list of all the items which are not covered by general principles – the ones belonging to the UG and those belonging to the specific language. The general principles of a specific language concern "aspects of phonology and morphology, choice of parametric options and whatever else may enter into language variation' (Chomsky 1995).

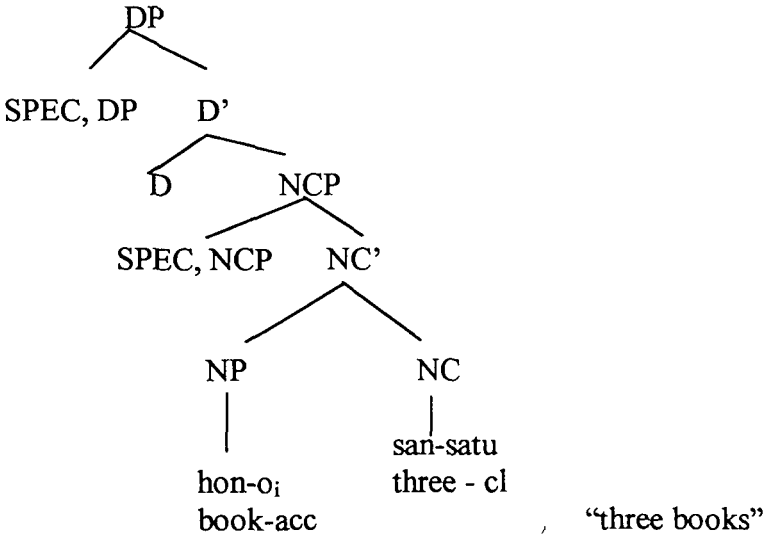
Whereas it is a matter of straightforward assumption that the lexicon contains the lexical elements nouns, verbs, adjectives and particles with their idiosyncratic properties, matters related to the functional categories are not very settled. Trying to make a choice between the functional categories T, C, D and AGR, Chomsky 1995 accepts it that the first three belong to the lexicon since they have semantic properties, for example, T is immediately divided into + finite and – finite and further into subdivisions related to event structures and other semantic properties; D is the locus of referentiality and C indicates whether an expression is declarative or interrogative. What adds to the legitimacy of lexical entries for such functional categories are their phonological properties, for example in English the declarative C is phonologically realised as that. In sum, a functional element will be included in the lexicon if it has a semantic content and a phonological effect in at least some instantiations of the category.

A work dealing with items still strange and unfamiliar to the major architects of generative grammars needs to establish the designation of classifiers. It is still

under negotiation whether classifiers are lexical or functional elements. Before stating our stand about it, we should look at the options that are available to us:

a. Lexical instantiations of functional categories: It is the view of Kitahara 1993 that classifiers are lexical instantiations of functional categories. He posits a Numeral Classifier Phrase (NCP) headed by a combination of a numeral and a classifier, e.g. :

(24)



In Kitahara's analysis, the features of the classifier satu have to match with those of the lexical head hon "book" so that they must be compatible in meaning. The case-marked NP (hon-o "book-acc.") goes to the specifier of NCP in order to check the features of the classifier and then to SPEC, DP in order to check case-features.

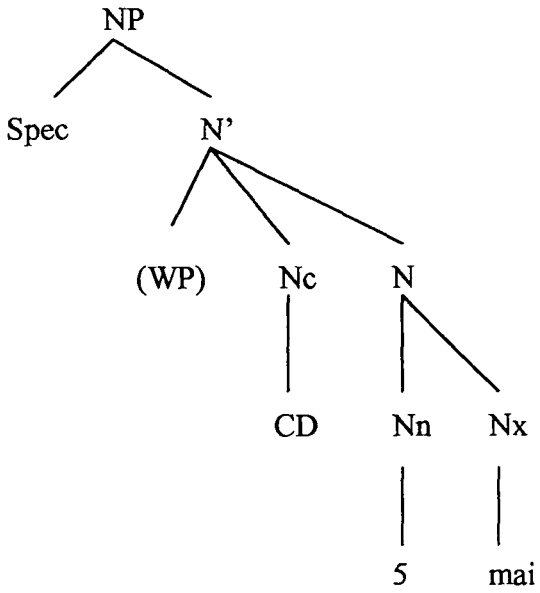
The fact that classifiers are always bound morphemes in Japanese has been used as a justification for its treatment as a functional category. Kitahara's analysis is similar to the analysis of Loebel 1989 who treated quantity designating nouns as lexical instantiations of the functional category Q. But the basic difference between them is that the numeral appears in Spec, QP in Loebel 1989.

b. Classifiers are purely syntactic items : Kubo 1996, whose work is also concerned with Japanese, is of the opinion that classifiers are purely syntactic items and that they are not lexical items. As syntactic items, classifiers are not visible in the LF.

In Kubo's (1996) analysis, the numeral is adjoined to the classifier as shown in the following:

(WP) = Complement
Nc = Noun class (Open)
Nx = Classifier
Nn = Number
NP = (Nominal) QP

(25) CD 5 – mai
CD 5 – cl "five CDS"



Kubo's justification is that Classifiers subcategorise nouns with respect to the noun's cognitive features. The use of the classifier hon for counting long and thin things and the use of the classifier tsu which goes with small objects are based on some cognitive factors which classify nouns to match a certain classifier. He argues that the cognitive features are only to be matched and not to be interpreted. Kubo suggests that following Emonds' (1999) classification of lexical items into three types, namely, purely semantic items, purely syntactic items and purely cognitive items, the classifiers should be treated as purely syntactic items which are to be inserted subsequent to any operations contributing to the LF. In minimalist program, the items which are invisible in the LF are always filled only with the formal features. If classifiers are invisible in the LF, they have to contain only formal features. Our understanding of the classifiers does not allow us to accept this.

C. Classifiers are semi-lexical items: Further discussions in the present work (in chapter five) would make it clear that none of the earlier analyses would be sufficient to understand the classifiers in Bangla and Asamiya. This leaves us with a third

possibility to examine – whether they could be treated as semi-lexical items. The languages examined by Riemsdijk 1997, 1998 and Vos 1999 do not have classifiers, but Riemsdijk 1998 mentions that the classifiers of South Asian Languages can be treated as light nouns. The standard criteria to judge functional items being the following:

(i) they constitute closed lexical classes

(ii) they are phonologically and morphologically dependent

(iii) they lack descriptive content, ---

Bangla classifiers khana, gacha and gulo abide by the first two, Ta abides by all the three and jon abides by only the second criterion. Hence it will be an overgeneralisation to call all the classifiers in Bangla functional items. On the other hand, they cannot be called purely lexical items.

The study of the database of Asamiya nominals indicates that classifiers have both lexical and functional characteristics. They look functional because they contain at least one strong functional feature to attract a full NP for checking purposes and they take part in syntactically realizing the abstract features of quantification through a process of Individuation (described later, in this chapter). On the other hand, unlike purely functional elements such as the English article the, the Swedish article de or the Hebrew article ha, Asamiya classifiers are rich in their descriptive content i.e., in Abney's sense – 'a phrase's link to the world'. The rich descriptive content (in terms of Semantic features, discussed later) in Asamiya classifiers does not allow an analyst to treat them as functional elements. Hence the best option is to approach them as semi-lexical items which implies that they are semi functional also. One piece of strong evidence in favour of this designation is that the group of classifiers shows behaviour similar to almost all the types of light nouns examined by Vos 1999. In other words, in Asamiya, the distinction between semilexical nouns and classifiers is almost lost as semilexical nouns, it will be shown later, also contain a strong formal feature.

The issues related to the semilexical items are not available to Chomsky 1995. Hence, in the minimalist program we see the attempts to classify and specify the features of lexical and functional categories while deciding upon the listing of features in lexical entries. The assumption that the semi-lexical categories do exist across categories implies that the nominal entities are also divided into three groups – lexical, semi-lexical and functional categories. It is then the task of later writings such as this one, to extend the lexicon-related minimalist assumptions to the semi-lexical categories. Thus we get a slightly varied version of the composition of lexicon.

What makes it convenient to assign the semi-lexical categories to the lexicon is the fact that they have a semantic content and a phonological content. Classifiers, while assumed to be semi-lexical categories should be entitled to the features of a lexical category. The classifier as a lexical item analysed under minimalist assumptions should be described as a set of features. These features are of the following types:

a. Categorial features
b. Grammatical features – features which need to be checked during derivations
c. Inherent semantic features determining s-selection (Semantic selection)
d. Inherent semantic features determining c-selection (Category selection), and
e. A phonological matrix containing instructions to sensorimotor interpretations.

Whether there could be a classifier without a phonological realization in expressions such as (26):

(26) a. tin caka-r gaRi
three wheel-gen cart 'A vehicle of three wheels'
b. du deS-er moytri
two country-gen friendship 'friendship among two countries'

is a matter for further investigation.

It follows from assigning the classifiers to the lexicon that the lexicon should specify the phonetic, semantic and syntactic properties of each classifier that are

idiosyncratic to it. Thus it is the lexicon of Bangla that specifies the phonological information that among the regular classifiers of Bangla, Ta has three variations, Ta, To and Te as seen in the following combinations with numerals:

(27)

a. Ek-Ta 'one-cl'
b. du-To 'two-cl'
c. tin-Te 'three-cl'
d. car-Te 'four-cl'
e. paMc-Ta 'five-cl'
f. chO-Ta 'six-cl'

These variations are not regulated by any morphophonemic rules. In contrast to that, Asamiya lexicon does not specify such idiosyncratic features in relation to numeral-TA combination. All numerals in Asamiya takes the ta variant of ta/to alternates, for example,

(28)

a. E-ta 'one-cl'
b. du-ta 'two-cl'
c. tini- ta 'three-cl'
d. sari-ta 'four-cl'
e. pas-ta 'five-cl'
f. sO-ta 'six-cl'

What Asamiya lexicon specifies is the idiosyncrasy involved in the exceptional fact that all definite expressions without the involvement of a numeral (thus indicating one entity) have to take the variant to, as in manuh-to 'man-cl' "the man", which cannot be derived by any language–specific phonological or morphophonemic rules. No rules can be framed to account for the following pair:

(29)

a. E - ta manuh
one cl man 'one man' indefinite – non specific

b. manuh - to

man - cl 'the man' definite – specific

This is totally exceptional of this pair whereas other such pairs of quantified nominals follow a pattern, e.g. :

(30)

i. a. du-ta manuh

two-cl man 'two men' indefinite – nonspecific

b. manuh du-ta/*to

man two-cl 'the two men' definite – specific

ii. a. sari-ta manuh

four-cl man 'four men' indefinite – nonspecific

b. manuh sari-ta/*to 'the four men' definite – specific

The Asamiya lexicon excludes any information regarding the choice of Ta in the expression in (29) above.

About the syntactic features, we can suggest that the lexicon specifies the default character of a classifier, such as the Bangla human classifier jon , which is not permitted in the environment N __ , unlike the classifier Ta. The following expressions show the difference:

(31)

a. Ek-Ta lok elo

one-cl man came 'a man came'

b. lok-Ta elo

man-cl came 'the man came'

c. Ek- jon chatro elo

one cl student came 'one student came'

d. *chatro-jon elo

man-jon came 'people came'

In Asamiya, on the other hand, the syntactic role of zOn (we consider it to be an equivalent of Bangla jon due to identical historical origin) is monitored by a language specific syntactic rule, which does not belong in the lexicon as it is not idiosyncratic. Notice the operation of the rule where two human classifiers (in fact all of them do so) occur in the following expressions:

(32)

a. E zOn/gOraki manuh ahile
   one cl man came 'one man came' indefinite, non-specific
b. manuh zOn/gOraki ahile
   man cl came 'the man came' indefinite, non-specific

The lexicon specifies semantic features for classifiers in more detail in Asamiya than in Bangla. A superficial contrast between Asamiya and Bangla in this regard might (mis-)lead an analyst to conclude that parameters of UG relate only to the lexicon and not to the computational system. What would remain then, as Chomsky 1995 puts it: 'If this proposal can be maintained in a natural form, there is only one human language apart from the lexicon and language acquisition is in essence a matter of determining lexical idiosyncrasies' (Chomsky 1995, p-131). But we have reasons based on research findings of the present work for conjecturing that the whole of Bangla/Asamiya variation need not be attributed to a lexicon-oriented parameter.

The Asamiya lexicon lists many more semantic properties in the classifiers in terms of semantic features than the Bangla lexicon does. All these features are accessible to the LF for interpretations through an interface with subsystems of conceptual structure and language use. There is a genuine need to specify the inherent semantic features of classifiers which seem to directly relate to conceptual structure and use of language in socio-cultural space. An issue to be addressed by future research in this regard is why a classifier with a semantic interpretation of collective aggregation is almost inert in indicating any other properties or characteristics of the entity referred to by the noun. However, as a statement of facts, the following data can be considered:

(33)

A		B	
	With individual aggregation		With collective aggregation
a.	du-khOn kitap two-cl book Ind. 'two books'	a'	kitap bilak book-cl 'the books'
b.	du-dal baMh two-cl bamboo 'two bamboos'	b'	baMh bilak bamboo-cl 'the bamboos'
c.	du-zOn lOra two-cl boy 'two boys'	c'	lOra bilak boy-cl 'the boys'
d.	du-gOraki montri two-cl minister 'two ministers'	d'	montri bilak minister-cl 'the ministers'

The use of bilak in (d'), however implies a despective sense. In order to avoid this as well as to maintain the sense of 'more than one' and 'formal' the speaker has the option to use a combination of an individual aggregation classifier and a non-cardinal numeral kei, e.g. :

(34) montri kei - gOraki
minister few - cl 'the (few) ministers'.

The same is the case when there is a need to maintain the sense of 'more than one' and 'female', e.g.:

(35) soali kei-zOni
girl few-cl 'the few girls'

Availability of this choice, we can argue, helps the speaker come to terms with an idiosyncrasy in the semantic feature gap in the featural make-up of the collective aggregation classifier bilak. This implies that the native speaker is fully aware of the following facts regarding the semantic information of bilak:

a. It is not capable of directly indicating the values of ±formal, ± female and ± despective in case of human referents.

b. It is not capable of indicating the type, size or constitution in case of non-human referents.

Hence, while exercising a lexical choice, the Asamiya speaker would choose a combination of kei and an individual classifier instead of bilak/bor if he/she intends to 'classify' more sharply. The comparative semantic content of bor/bilak and some individual classifiers could be understood by studying the following data:

(36)

Set A		Set B	
i) manuh - to		i) manuh - bilak/bor	
man - cl	'the man'	man-cl	'the men'
ii) manuh - zOn		ii) --	
man - cl	'the man'		
iii) manuh - zOni		iii) --	
man - cl	'the woman'		
iv) manuh - gOraki		iv) --	
man - cl	'the person'		

The native speaker is aware of this lexical feature gap in (ii), (iii) and (iv) in Set B, and knows that there is no classifier in the lexicon which can combine collective aggregation value with some boundary definition features. Therefore (s)he uses the following so as to make do with individual classifiers in order to deal with the gap in (ii), (iii) and (iv) in Set B:

(37) a. manuh kei-zOn
man few-cl 'the (few) men'

b. manuh kei-zOni
man few-cl 'the (few) women'

c. manuh kei-gOraki
man few-cl 'the (few) people/persons'

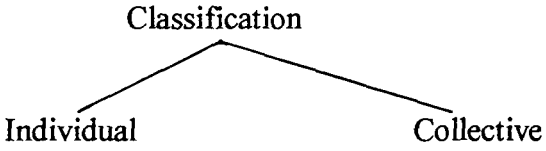
The combination of (kei + individual classifiers) is not an equivalent of bilak/bor but it is an approximation to them. The combination is used to compensate for whatever is

not specified by the lexicon in bor /bilak as opposed to whatever the lexicon has specified in Asamiya individual classifiers, the package of boundary definition features. To define the semantic content of all classifiers in both Asamiya and Bangla let us propose the following:

(38) All classifiers have an aggregation value, either individual or collective, which is interpretable at LF.

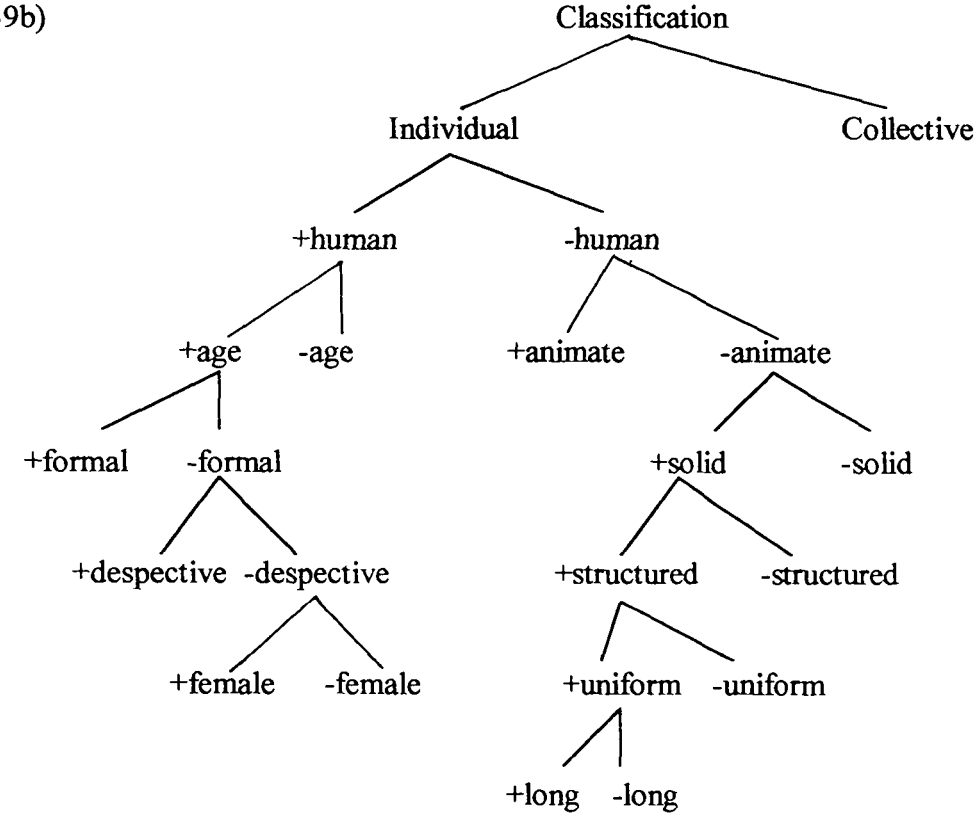
This determines the first stage of lexical feature format of both the languages. The collective classifiers are not sensitive to further distinctions.

(39a)



The individual classifiers of Bangla denote some distinctions but they are rather blunt and overlapping. In contrast, the Asamiya lexicon packs its individual classifiers with sharp and discrete boundary definition features. The following format is worked out to show the total featural organisation of Asamiya classifiers:

(39b)



To illustrate how the format works, the semantic content of some classifiers can be described as follows:

(40)

a. to : individual, +human, +age, - formal, +despective

b. to : individual, -human, +animate

c. to : individual, -human, -animate, +solid, +structured, -uniform

d. zOn : individual, +human, +age, -formal, -despective, -female

e. zOri : individual, +human, +age, -formal, -despective, +female

f. gOraki : individual, +human, +age, +formal

g. khOn : individual, -human, -animate, +solid, +structured, -uniform

h. dal : individual, -human, -animate,+solid,+structured,+uniform, +long

i. zopa : individual, -human, -animate, +solid, +structured, +uniform

Asamiya, as it is described elsewhere, allows its light nouns to behave as classifiers in all its environments (both pre-nominal and post-nominal). The configuration of features in partitives can also be worked out with the help of the feature format in (39b) above. Besides, different featural configurations can explain the mutual exclusiveness of classifiers and partitive nouns in the identical environments Q __ N, N __, NQ __. Given that quantification is a universal phenomenon, it is observed that in a classifier language quantifications with classifiers are more original since classifiers are the most indigenous among all the quantificational auxiliaries. Historically partitives and other light nouns are mostly borrowed items, which find place in a language when a new mode of quantification is introduced and the lexicon has to supply an item with a particular featural configuration befitting that of the intrinsic features of the noun. A partitive is chosen only when a classifier with a particular configuration is not available to go with the intrinsic features of a noun. For example, the intrinsic features of saul "rice" and pani "water" are the following :

(41)

a. saul "rice"
-human

b. pani "water"
-human

-animate	-animate
+solid	-solid
-structured	

There are no classifiers to match the above feature formats with respective configurations for saul "rice" and pani "water". This is one reason why they have to enter into partitive constructions such as the following :

(42)

a. Ek bOsta saul
   one sack rice 'one sack of rice'

b. dui glas pani
   two glass water 'two glasses of water'

The featural organization of a noun and a classifier or partitive must follow what we can call the Feature Compatibility Principle:

(43)

Feature Compatibility Principle (FCP):
The intrinsic features of a noun, the quantificational features of a quantifier and the boundary definition features of a classifier must be compatible.

(In the absence of a classifier, the intrinsic features of a lexical noun and a light noun (semi-lexical noun) must be compatible with each other.)

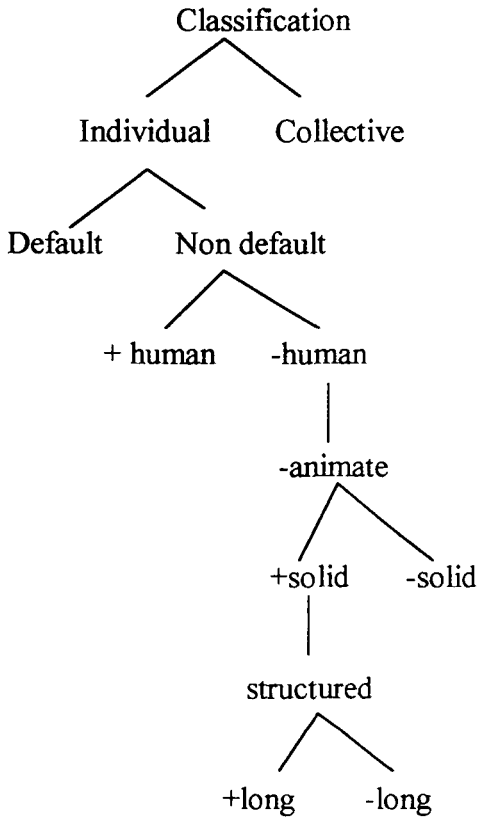
The principle is a wellformedness principle which would allow us to deal with selectional restrictions since the minimalist program does not include any selectional restriction rules unlike previous models of generative grammar. The FCP applies in the LF, to permit or crash derivations for Full Interpretation (FI).

We can argue that the choice of a partitive is lexically decided on the basis of non-availability of a classifier with a particular feature-configuration, compatible with the noun. In the examples in (42), the countability feature of a numeral is in opposition with the intrinsic feature of saul "rice" or pani 'water' (-countable). The

function of the partitive is to establish a compatibility between these two, thereby allowing a logical possibility for numerically counting (quantify) items such as rice or water. The configuration of features, accessible to FCP is the actual lexical content of a classifier. A formal semantic representation of FCP is outside the scope of the present work.

The principal justification of showing the lexical or semantic content of classifiers in terms of features is that it corresponds to the non-linguistic (but cognitive) perception of the physical properties of an item referred to by a noun (when it is a non-human entity), or of sociocultural identity of a human referent. Surely languages differ in terms of how these perceptual features are encoded in the lexicon and how they operate in the grammatical system of a language. For example compared to the well-spread out feature system of classification in Asamiya, Bangla has a very restricted system of features, as shown below:

(44)



The most frequent classifiers in Bangla can be described in terms of these features in the following way :

(45) a. Ta : individual, default
b. gulo : collective
c. jon : individual, +human
d. khana : individual, -human, -animate +solid, +structured, -long
e. gacha: individual, -human, -aminate, +solid, +structured, +long

Bangla classifiers' feature matrix is clearly very restricted compared to their Asamiya counterparts which show a sharper classification. Besides, the most frequent classifier Ta in Bangla is a default one which may alternate with any of the other classifiers with the feature (individual). In spite of that both the languages are equally sensitive to Feature Compatibility Principle (FCP). FCP could be regarded as a nominal version of S-selection. Not to elaborate on this here, we must say that classifiers and nouns cannot be selected at random or even on the basis of a superficial match-making. It is mandatory for the semantic requirements of Full Interpretation (FI) that there is maximum compatibility of features between the nouns and the classifiers, regardless of the relative richness of classifiers' feature matrix. The following are some crashed derivations (constructions judged as ungrammatical) which could not converge at the LF for incompatibility of lexical features:

(46)

A. Bangla

	Classifier feature	Noun feature
a. * tin-jon boi three-cl book	+human	-human
b. *du-khana lok two-cl man	-human	+human
c. *Ek-gacha kukur one-cl dog	-human -animate	-human +animate
d. *Ek-Ta bhOdrolok one-cl gentleman	default (-hon, by implication)	+human +honorific

[Bangla default classifier Ta implies a sense of –honorific in some restricted cases. An expression such as (45 d) would not have crashed if jon was used instead of Ta]

B. Asamiya

	Classifier feature	Noun feature
e. * tini-dal kitap	+structured +uniform	+structured
three-cl book	+long	+uniform, -long
f. *du-gOraki goru	+human	-human
two-cl cow	+age +formal	+animate
g. *E-zopa baMh	-animate	-animate +solid
one-cl bamboo	+solid	+structured +uniform
h. *du-zoni lora	+human +age	+human +age
two-cl boy	-formal, - despective,+female	-formal,-despective,-female

The operation of Feature Compatibility Principle (FCP) works, quite clearly, independent of feature checking mechanism. Feature checking in the minimalist methodology, is a matter of syntax where the participating features are non-intrinsic, non-interpretable and optional. On the other hand, FCP relates to the interpretable features and is a component of LF. The present work does not propose to extend up to developing a theory of nominal constructions which would be similar to S-selection determining the verb's selection of its arguments. There is a theoretical inconvenience in trying to designate FCP as nominal S-selection due to the non-availability of evidence that the noun (or NP) is an argument of the classifier or the Q. The maximum that can be said at this point is that FCP must be observed by classifier-related nominal constructions for the requirements wellformedness conditions. Future research can follow the direction shown by Loebel 2000 who refines the notion of theta role and, following Rizzi 1990, distinguishes two types of semantic selection, namely referential vs non-referential and participant vs non-participant roles. She argues that this distinction is not only applicable for verbs, but also for nouns.

4.3. Classification, quantification, number and gender : Common issues in Bangla and Asamiya:

In the earlier section, we have described how classifiers as members of the lexicon are capable of establishing a relation between linguistic perception of nouns and the non-linguistic perception of their referents. We have also discussed how the grammar of a classifier-using language processes perceptual and socio-cultural information by encoding them in terms of lexical features contained by classifiers.

This section, devoted to developing and justifying a common DP-Structure for Bangla and Asamiya, attempts to reflect on the following questions :

a. Can the classifier be regarded as a UG primitive ?
b. What compels a language to develop the use of classifiers? In other words, is it a grammatical or a semantic necessity to use classifiers in the nominal expressions of a language ?
c. If a language is designated to be a classifier–using one, do all its DPs use classifiers?
d. If classifiers are called nominal auxiliaries, what are its verbal counterparts?
e. How do the grammars of classifier-using languages incorporate mathematical insights of quantification and counting? And, how does this incorporation shape the phrase structure of quantified nominals?

4.3.1. Classification and quantification in Bangla and Asamiya in a universal perspective:

On the basis of the primary observation that classifiers occur in the nominal expressions in Bangla and Asamiya (as in other typologically similar languages) it is noticed that both these languages differ from a non-classifier using western language by the latter's tendency to use standardised measure units and quantification methodologies. Western languages are products of cultures where the concept and

practice of standardisation of measures have developed rather early in history. Discovery and development of scientific description of physical matters, scientific mechanism of quantifying or measuring length, surface, volume, density etc. have enabled the languages to introduce the standardised measure words. It can be hypothesised that as standardised measure words gain currency at different stages of a language's exposure and interaction to scientific methods of measuring, the indigenous methods of measuring as well as the indigenous measure words, along with classifiers involved with them may start disappearing.

If classifiers were a part of the UG, UG representing the initial state of genetically determined cognitive capacity to process a human language by an average member of the human species, then a person's reaction to quantified nominals would reflect a classifier language type of parsing regardless of whether his language has classifiers or not in its lexicon.

But since apparently that is not the case, the next possibility is that UG offers a grammatical representation of an arithmetical principle which allows a cognitive process of describing an item in terms of its measurements through multiplication of a cardinal number and a unit (standardised or indigenous).

Carey 1998 states that mathematical concepts and systems of notation are closely interrelated with human cultural history. The positive integers 1, 2, 3, 4, 5 ... etc, which are the most fundamental of mathematical objects, are products of culture. The capacity to represent the positive integers depends on the uniquely human capacity for language. Though children require an apprenticeship of two years or so to master their language's integer list, there are evidences that prelinguistic infants are sensitive to number representation.

Western cultures have developed extensive methods of scientific measurement. This explains why the western languages use a large proportion of standardised units and very few, if any, indigenous units. Counting, when regarded as a form of measurement, also involves the same arithmetical principle. Just as

languages have measure-units, they have count units also, such as dozen, pair, score in English, DOjon "dozen", joRa "pair" gOnDa "four at a time" in Bangla, and jor "pair" kuri "score" etc. in Asamiya. Count units can be divided into two categories: a. those which indicate more than one, and b. those which indicate just 'one'. The first type is available in almost all languages, but the second type is typical of classifier languages. In a classifier language, most of the classifiers are used as count-units. The possible reason why western languages have done away with the second type of count units could be the speakers' collective awareness of the mathematical principle that a mathematical entity remains the same if it is multiplied by the number 'one'. This insight, when incorporated into the linguistic system, helps in economising the description by eliminating the count units with the value of 'one'. Languages of the west have been able to establish measurement as an independent system of description which is free from other means of description.

Another reason could be referentiality. Since it is true across classifier languages that they do not have a system of articles as determiners, the referential features must be combined with the quantificational features. Hence, when in an expression such as Ek-Ta boi "one-cl book" 'a book' the numeral Ek "one" indicates quantification, Ta takes care of the referentiality part. Ek-Ta "one-cl" appears as one syntactic object with dual purposes. We suggest that just the opposite happens in the case of English, though marginally. In English, the article a combines the referential features and quantificational features - a book in English necessarily means "one book" and *a one book is ungrammatical there.

Languages which do not use classifiers present only a numeral and a noun in quantified (counted) nominals. As a result, in those languages, a nominal expression, with the function of describing the quantified (counted) items, does not contain any other item which would reflect some perceptual or socio-cultural information regarding the referent's shape, size, constitution or its relation to the environment. Consider the following minimal pair from English and Asamiya, where the English example sounds slightly exaggerated as the numeral one highlights an explicit counting that is normally replaced with an indefinite article a(n).

(47)

a. One teacher is beating up two students with one stick

b. E gOraki xikkhaguru du-zOn satrO-K E-dal bet –ere pitise
one-cl-teacher two-cl-student-acc one-cl-cane-with beating up.
One teacher is beating up two students with one stick.

The English expressions one teacher, two students and one stick contain no item to indicate either the shape (for inanimate objects) or the referent's relation to the environment. In English, it is a general principle that the mode of counting as a system of description is free from other forms of description. In contrast, in Asamiya, measurement as a system of characterization is combined with some other more directly descriptive system. This combination is the characteristic of nominal expressions in a classifier language.

We understand the issue this way: Nominal expressions in all human languages which draw systemic inputs from the UG can involve the following features :

(48) a. Referential features
b. Deictic features
c. Intrinsic/Inherent features (lexical information in nouns)
d. Attributive features (lexical information in adjectives)
e. Boundary definition features (a choice available to classifier languages)
f. Quantificational features (formal and semantic features of quantifiers).

Of these, the first four are self-explanatory in the sense that they are used in standard literature of generative grammar. Items (e) and (f) are introduced in this dissertation. To think about it universally, the above list is not complete, for there are other known types such as gender features available to languages with grammatical gender or number features available to languages opting for grammatical number etc. These are not elaborated here as they do not appear in the languages of our concern.

It is the organisation of these features in the computational system of the nominal structure of a language that makes it different from (or similar to) other languages. Such a stand is taken on the basis of some minimalist assumptions which separate the lexicon from a computational process of syntactic organisation by eliminating any redundancy between lexical properties and phrase structure rules. The structure of a nominal phrase (DP) in one language in a minimalist framework does not take into consideration any phrase structure rules. What it requires is a 'general X-bar theoretic format of UG'. A feature-based theory of UG such as the minimalist program allows one to understand language variations in relation to UG by associating different featural organisations with the fundamental X-bar format. In the context of nominal structures, a particular language has at its disposal principles of UG such as the categorial feature, the nominal lexical projection, the spec-head configuration for feature checking or conditions on economy of movements and along with them, (it is proposed) a list of features such as the ones presented above. Out of a universal set of features, a particular language can choose some, incorporate them in terms of lexical properties with specific idiosyncrasies abstracting from the principles of UG and relate them to the special properties of the features, their choice and status is monitored by the respective particular grammar.

This hypothesis is helpful in the context of trying to understand the differences between a classifier language such as Asamiya or Bangla and a non-classifier using language such as English. The fact that English has an independent system of quantification and measurement and that Asamiya quantificational system is combined with other systems of description (referential system or boundary definition system) matches well with the proposal that in English there is a clear allocation of referential and quantificational features to DP and QP respectively, whereas in Asamiya both the features are looked after by the QP. This analysis is similar in its strategy to Szabolcsi 1994 who shows that a language like Hungarian has two Ds, a 'subordinator' (which marks the NP as a possible argument) and a quantifier or demonstrative. A Hungarian nominal performs these two functions through two different morphemes whereas English makes do with just one morpheme. Her

suggestion is that in English, these two functions are 'conflated' and are monitored by one morpheme.

Along similar lines, the next chapter will describe how deictic features combine with boundary definition features in Asamiya and how the combination distinguishes it from Bangla where deictic features do not correspond to boundary definition features. In a language with a rich classifier system such as Asamiya, a quantificational description usually entails other information due to the presence of a classifier in a nominal construction. It can be argued that a classifier language will not allow an article system to develop if its QP can look after both the referential and quantificational features. A fresh explanation of the traditional grammarian's fallacy of judging classifiers to be the equivalents of articles can substantiate this point. An article is basically different from a classifier in two respects: a. an article is related to D and a classifier to Q and b. an article contains only referential features whereas a classifier carries referential, quantificational and boundary definition features. In the X-bar format of the nominal structure of Asamiya, Q can check both quantificational and referential features. The classifier's ability to bear a referential index works as a mirage for those who mistake it as an article.

In order to characterize the nominal structure of classifier-using languages, any analyst will find it necessary to specify the categorial value of a classifier. Postponing a full-length proof of its being a noun to the next chapter it should be mentioned here that the present work treats classifiers as lighter versions of nouns. This treatment gives theoretical advantages; one, it helps justify the postulation of a functional category QP in terms of output conditions and semantic interpretation, two, the categorial identity of classifiers and nouns is in conformity with the fact that a functional projection is an extended projection of a lexical projection with which it shares the categorial features; and three, it establishes a parallelism of constituents across categories, in nominal and verbal domains – the accessory elements accompanying a lexical verb in the verbal domain are parallel to those of the lexical noun in the nominal domain.

Burling 1965, at the outset of his paper states that he is inspired by the works of Professor Hallowell (no reference available) who has explored how concepts of space and time are handled by people whose cultures are radically different from western cultures. Burling investigates Burmese numeral classifiers as a set of terms constituting a measuring system which is a means of expressing ideas of time and space. Only further research will be able to tell us what the most appropriate equivalent of classifier is in the verbal domain. In order to determine this, one needs to examine the relationship between the lexical verb and tense, modal or aspect. To approach it notionally, one can conjecture that the classifier as a category is similar to tense. As tense is a grammatical representation of the temporal boundary of an action, classifier can be treated as a grammatical representation of the spatial boundary of a nominal entity. There are other striking similarities between the classifier and tense. One such is the relation between the non-linguistic perception of time and its linguistic representation in tense which varies from language to language. Classifiers also show a similar pattern when the non-linguistic perception of an entity's class does not correspond to the linguistic classification; for example, in Asamiya a big size fish or a cow may be entitled to a human classifier (zOni). Tense in grammar, though sometimes in a default manner, refers to a time-frame which accommodates the action of the verb by delimiting its boundaries of finiteness. Similarly, the classifier offers an existential frame to delimit the conceptual spatial boundaries of the referent. In terms of structural layout, both class and tense abound in default manifestations. The default tense system of English can be called similar to the default classifier system in Bangla. However, class-tense parallelism awaits a syntactic explanation. Cheng and Sybesma 1999 compare the deictic function of the demonstrative to the function of T(ense).

Greenberg 1972 talks about the logical possibility of a system of verbal classifiers where each classifier should be used with a particular class of verbs and an accompanying numeral. He observes that the realisation of this possibility is not as systematic as it is in the case of nominal expressions. He shows that the mass/count distinction may apply to the verbal action and hence it is related to aspect. In the following expressions,

(49) a. He has been laughing for two minutes.

b. He laughed twice.

the difference between (a) and (b) is due to the difference between durative and punctual and is related to the distinction between measure and count. But Greenberg seems to have given more attention to the semantic modification function of classifiers while treating two adverbial phrases as equivalents to nominal quantificational expressions. If syntactic judgements are applied, classifiers cannot be treated as equivalents to adverbs for the simple reason that adverbs are adjuncts which classifiers never are.

4.3.2. Evidence against a number phrase in classifier languages:

In a discussion on the syntax of quantification and counting, what features necessarily is a notional contrast between 'one entity' and 'more than one entity'. Grammars in most of the languages and almost all theories of grammar acknowledge the presence of the dimension Number which represent this contrast grammatically. On the basis of the study of data as well as of the support from typological information, this subsection argues that there is no Number in classifier languages. Hence, there should be no number phrase in a common DP structure which works for both Bangla and Asamiya. Number Phrase (NumP) as a functional projection is originally proposed by Ritter 1991 who treats it as the locus of the Number specification of the DP. It is discussed in detail in Chapter one how the postulation of the Number Phrase has enabled Ritter 1991 to account for the following facts of the syntax of Modern Hebrew nominals:

a) word order differences in genitive constructions

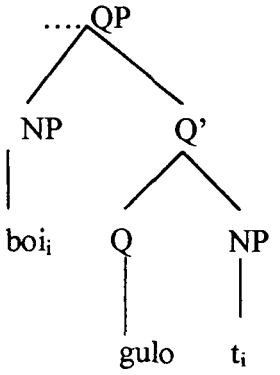
b) differences between number and gender suffixes on nouns

c) differences between the distribution of 1st and 2nd person pronouns and that of the 3rd person pronouns.

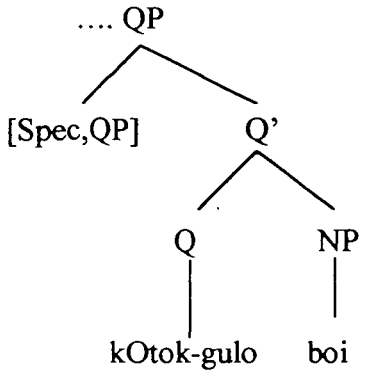
In the context of Asamiya and Bangla, there is no need to examine (a) and (c) which deal with very specific peculiarities of Hebrew, a language so very dissimilar to the other two in this regard. But the possibility of (b) above must be examined since some facts, while treated at their face value have allowed some descriptive linguists to say that there are number and gender in Asamiya nominals and there is number in Bangla nominals.

Arguments in favour of the absence of number in Bangla come from Greenberg's 1972 typological considerations as well as from the formalised typological bifurcation of Bangla and Hindi explained in Dasgupta and Bhattacharya 1993. Greenberg's synchronic generalisation that a numeral classifier language shows no compulsory expression of nominal plurality should apply to Bangla also. The analysis of Dasgupta and Bhattacharya 1993 that Classifier in a class language like Bangla is actually an equivalent of a gender and number merger in Hindi, stands to substantiate Greenberg's generalisation. The only possible candidate to claim a number slot in Bangla would have been gulo, but its status as a classifier has already been established by Dasgupta 1983. He has shown that gulo, as a classifier occurs in the same environment as Ta to combine with a quantifier (see chapter two for details). In the present work, gulo is kept in the Q head either on its own in a definite nominal such as (a) below or with a non-numeral quantifier, in an indefinite expression such as in (b) below:

(50) a.



b.



a. boi-gulo "book-cl" 'the books' b. kOtok-gulo boi "few-cl book" 'a few books'

These structures are formed after Bhattacharya 2000 who works solely on Bangla. Hence there is a need to examine if this type of analysis works for Asamiya too. The apparent equivalents of gulo in Asamiya are bor and bilak, both of which indicate 'more than one' similar to Bangla gulo. Consider the following data:

(51)

a. kitap–khOn porhilo
   book–cl read-1p ' I read the book'

b. kitap–bilak porhilo
   book–cl read-1p 'I read the books'

c. kitap-bor porhilo
   book – cl read-1p 'I read the books'

Apparently the underlined expression in (a) above contrasts with (b) or (c) since bilak and bor do indicate a sense of 'more than one'. At the same time they also indicate definiteness. Both these aspects are taken into account by Goswami 1982 who calls them 'plural definitives'. The issue here is, why should a 'plural marker' invariably indicate definiteness? Nominals with generic interpretation and with indefinite interpretation appear with no plural marker, e.g.:

(52)

a. besi besi ke kitap porhibo lage
   more more particle book read-part needed
   'More and more books need to be read.'

b. i – xOmpOrkO-t dher kitap porhilo
   this matter – loc many book read
   'I read many books on this matter.'

Both the underlined nominals indicate a sense of 'more than one' but there is no sense of definiteness. If the language had Number, it would have manifested in generics/indefinites also, as is the case with English. Consider the contrast with English below:

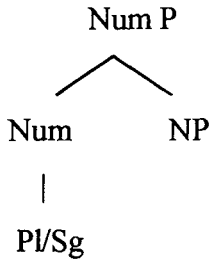
(53)

Asamiya	**English**
(+ generic)	**(+generic)**
a. kitap	a. books
"book"	(+ plural)
(no number specification)	
a' * kitapbor	a' * book
(-generic)	**(-generic)**
b. dher kitap	b. many books
"many book" (+specific)	(+specific)
(- def)	(-def)
(no number specification)	(+plural)
(+quantified)	(+quantified)
b' *dher kitapbor	b' * many book

The only possibility to treat kitap as truly equivalent to books is to show that kitap incorporates a zero plural marker which combines with its (+generic) feature. But there is no theoretical necessity for such a treatment as there is no universal principle that a generic feature must combine with a plural feature. Under minimalist assumptions, generic-ness is purely a matter of the semantic component whereas the Number value is not. The feature [+ plural] is a strong formal feature available in the DP books and it is eliminated before spell-out at the clausal computation. In contrast (+generic) is a semantic feature which is given a free passage through spell-out, to be interpreted at the LF. Though the presence of a semantic feature equivalent to a formal feature is theoretically acknowledged, nobody can argue that [+generic] is a semantic equivalent to the formal feature [+plural]. The lesson to be learnt here is that Number does not come from UG, it is a language specific choice. It would be relevant to recall Dasgupta 1985 here to suppose that the actual UG-element is a further abstraction of Number. It manifests as Number in a non-classifier-using language and as Aggregation in a classifier-using language. Postponing an examination of the notion of Aggregation as proposed by Dasgupta 1985, the matter can be settled that Asamiya (and also Bangla) has no Number in the sense in which English has such a

formal feature. A case study of Chinese should be enlightening in this regard, as it is the prototype of a classifier-using language and it is sufficiently analysed by generative linguists.

Li 1999, who gives a comparative analysis of Number in English and Chinese, follows Ritter 1991 in using a functional category NumP, whose Num head marks singular or plural value of a noun, as the following (54)



The difference between the pair of expressions,

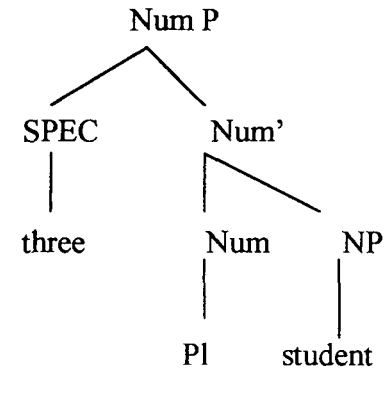
(55) a. three students

b. san-ge xuesheng

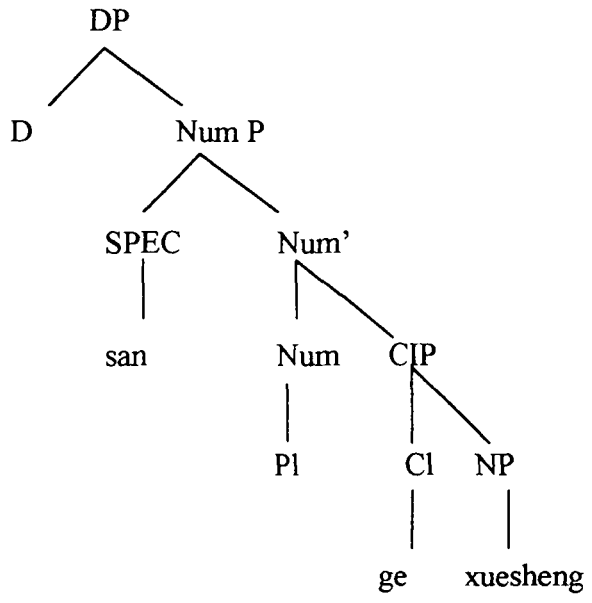
three cl student 'three students'

has been attributed to the presence of an additional classifier projection between the projections of Number and N in a classifier language such as Chinese. This projection is absent in English. The contrastive structures are as follow:

(56)a.



b.



"three students" "san-ge xuesheng" three – cl student

Li 1999 seems to ignore the correlation between the presence of classifiers and the absence of plural morphology in Chinese by arguing that both classifier language and non-classifier language express plurality. She takes the example of Chinese –men and English –s to be equivalent of each other and generates both of them under the node Number.

As it appears from the English gloss, Chinese –men is similar to Bangla gulo or Asamiya bor and bilak, e.g.

(57) Chinese

a. wo qu zhao haizi-men
I go find child – MEN 'I will go find the children'

Bangla

b. ami chele-gulo-ke khuMjte jabo
I child-cl-acc to find go-fut.1P

Asamiya

c. moi 1Ora-bilak – Ok bisaribOloi zam
I child-cl-acc to find go-fut.1P

The underlined nominal expressions in (b) and (c) have the interpretation "the children" similar to haizi-men in Chinese. The use of –men is prohibited in Chinese nominals with the combination, Numeral-Classifier-Noun, just as the use of gulo in Bangla and bilak /bor in Asamiya are prohibited in similar constructions; e.g. :

(58)

a. * san-ge xuesheng – men
three – cl student – MEN Chinese

b. * tin-Te chele gulo
three – cl boy cl Bangla

c. * tini – ta lOra bilak
three – cl boy cl Asamiya

These similarities may suggest that we follow Li's treatment of -men while connecting the fact that an item like -men is peculiar to a classifier language with the fact that it obligatorily gives a definite interpretation. Li states that plurality in a classifier language is realised by an element in Determiner. Counter arguments to such an analysis must be considered.

Loebel 2000 reacts to Li's analysis by pointing out that Li 1999 does not take into account the difference between the use of Number as functional category in English and Chinese. The actual contrast is between the fact that English Num, a grammatical category, is obligatorily realised in both the singular and the plural and the fact that these two realisations are dissociated in Chinese. Whether Loebel's interpretation of Li's structure can be extended to Bangla and Asamiya also need not be decided right away. She states that the functional category Num in Chinese is optional, it stands solely for the semantic notion of plurality and the functional category Clf represents the syntactic function of unit counting which assumes singularity. A more acceptable analysis of Chinese –men is available in Cheng and Sybesma 1999.

Cheng and Sybesma 1999, while having to make a choice between whether –men in Chinese is a 'plural suffix' or a 'collective suffix', accept the second solution on the basis of the generalisation that Chinese has no number morphology expressed on the noun. Their argument in a nutshell is that the superstructure of NP involves more than one function, which can be expressed in different ways. They can be expressed by separate morphemes or one particular morpheme may combine some of them into a cluster. The Chinese classifier expresses classification and number while also performing the function of a deictic/subordinative. In this regard, it is similar to the French Determiner which performs the function of a subordinative in addition to expressing classification and number.

Cheng and Sybesma 1999, despite offering an insightful observation, seem to have got stuck with the term 'number' while allotting two functions to the classifier. It seems to us that Aggregation would be a better term to express the sense of "number"

as treated by Cheng and Sybesma 1999. In the minimalist framework, we propose that the number-like entity expressed by classifiers is Aggregation. It is similar to number in showing a difference of 'one' and 'more than one'. It is different from number proper as number (grammatical) either singular or plural is a formal feature which needs to be deleted before spell-out in the clausal computation whereas the Aggregation feature, either individual or collective, is operative in the phrasal computation. The aggregation feature need not be checked prior to the spell-out of the DP to be eliminated before the DP enters into numeration for clausal computation. We treat aggregation as an interpretable feature. In other words, the DP in a classifier language does not contain a Number (or a similar) feature to participate in a checking mechanism at the clausal level.

4.3.3. Arguments against Grammatical Gender: No AGR within DP in Bangla/Asamiya:

What entails our stand on number is the observation that there is no gender in either Bangla or Asamiya. This is a part of the assumption that the classifier category in Bangla and Asamiya is an equivalent to the number and gender features merged in Hindi. Close examination of some Asamiya facts is needed in this connection to consolidate our stand. It is true that apparently Asamiya Classifiers show a male-female distinction, such as the following:

(59)

a. du zOn 1Ora
   two cl boy 'two boys'
b. du zOni soali
   two cl girl 'two girls'
c. kei zOn 1Ora
   some cl boy 'some boys'
d. kei zOni soali
   some cl girl 'some girls'
e. 1Ora zOn (*zOni)
   boy cl 'the boy'

f. soali zOni (*zOn)

girl cl 'the girl'

In the lexical items of Sanskritic origin, there are pairs such as satro – satri "student (male) – student (female)" which helps to assume that the vowel [i] in the final segment is an indicator of gender. Chowdhury 1997 shows that some masculine kinship terms ending in [-a] derive their corresponding feminine terms by suffixing [-i] which replaces the final vowel [a], e.g. :

(60) a. peha "aunt" pehi "aunt' (father's sister)
(father's sister's husband)

b. khura "uncle" khuri "aunt"
(further's brother) (father's brother's wife)

But we observe that there is no synchronic evidence for the existence of any productive word formation rules to create a new paradigm of feminine lexical items. Moreover femininity does not trigger grammatical processes of agreement, unlike Hindi as is evident from the following pairs :

(61)

Asamiya		Hindi
a. khura ahibO		a' caacaa aayegaa
uncle come-fut.3p	'uncle will come'	uncle come–fut.mas
b. khuri ahibO		b' caacii aayegii
aunt come-fut3p	'aunt will come'	aunt come- fut. Fem.

Indication of femininity on the lexical item khuri with the final vowel (i) has no grammatical function unlike the similar item in Hindi.

The classifiers zOn and zOni are lexical items and the interpretation of male/female distinction in them is lexically realised. It has no grammatical implications with any bearing on the clausal structure, again unlike Hindi, as seen from the data below :

(62)

Asamiya	Hindi
a. E-zOn lOra ahise	a' ek laRkaa aa rahaa hai
one-cl bay coming-is	one boy coming be

'One boy is coming'

b. E zOni soali ahise — b' ek laRkii aa rahii hai

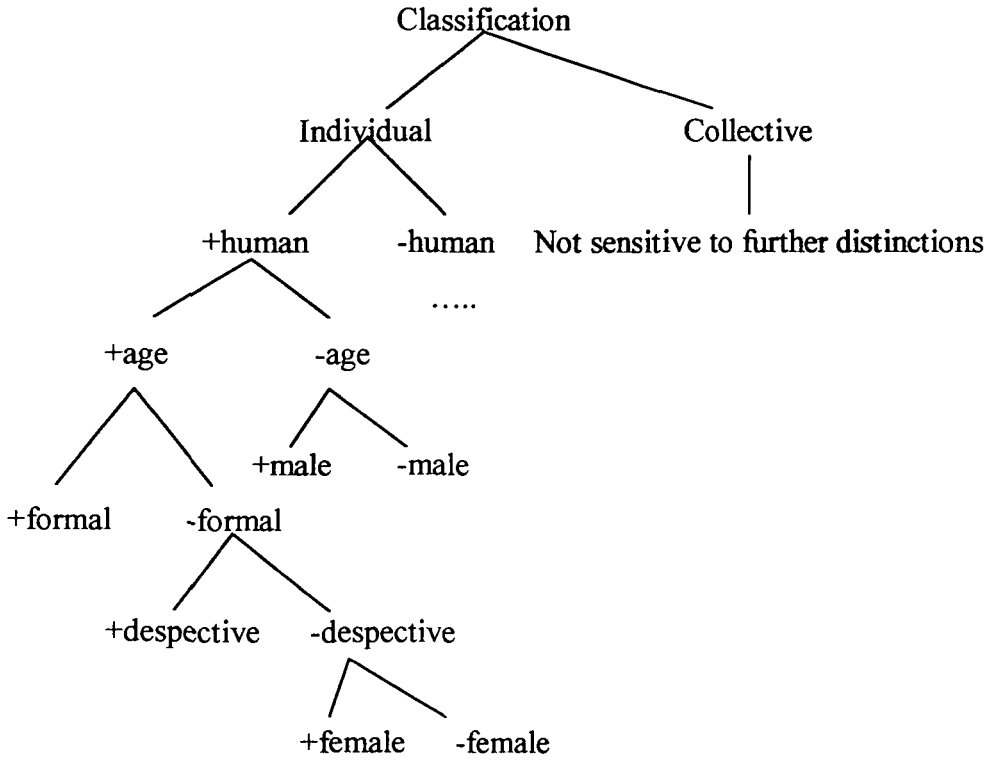
one cl girl coming-is — one girl coming be

'One girl is coming'

The operation of grammatical gender is reflected on the vowel harmony of [aa] laRkaa and rahaa and in laRki and rahii. The verbal in Asamiya does not indicate any such change as it could be seen from (a) and (b) above.

Furnishing of the Hindi data has been done to argue that male/female distinction in Asamiya zOn/zOni is a DP-internal matter. It is not a binary system, it is a part of a larger featural organisation that Asamiya classifiers are subject to. It is a result of the fact that in Asamiya the classifier's feature matrix is an approximation of the noun feature matrix. The feature [+female] in zOni is an intrinsic lexical feature, an abstraction of a language-specific idiosyncratic property, which is also present in the noun soali "girl". The group of human classifiers in Asamiya are organised in the following scheme :

(63)



This lexical feature format can capture the differences among the human classifiers in Asamiya in the following manner:

(64)

a. to as in kesua-to : +human, -age, +male
   child- cl
b. zOni as in kesua- zOni : +human, -age, - male
   child- cl
c. to as in manuh-to : +human +age – formal +des
   man-cl
d. zOni as in manuh zOni : +human +age –formal --des +female
   man-cl
e. zOn as in manuh-zOn : +human +age – formal --des – female
   man-cl
f. gOraki as in manuh-gOraki : +human +age +formal
   man-cl

To sum up, zOn is distinguished from zOni by a classification feature ± female which is not related to grammatical gender. A similar classification feature ± male is involved in distinguishing zOni from to. These two features offer strictly lexical information. According to the status, they are similar to the aggregation information in the sense that they are the part of the same scheme of classfication. The features listed above against each classifier are proposed to be called 'notional boundary definition features'. In our discussion of the content of lexical items in the previous section, classifier system in Asamiya is very rich in these features. Semantically, they have two functions : a. Confirmation of notional boundary of a common noun, as seen in the following expressions:

(65)

a. 1Ora-zOn
   boy-cl 'the boy'
b. soali-zOni
   girl-cl 'the girl'

and b. imposing notional boundary on a neutral common noun as seen in the following expressions:

(66) a. manuh-zOn
man-cl 'the man'

b. manuh-zOni
man-cl 'the woman'

The boundary definition features can interact with pronominal deictic features as seem in the following pair of expressions:

(67) a. i -zOn bOr bhal
he-cl very good 'This person (male) is very good'

b. ei-zOni bOr beya
she-cl very bad 'This person (female) is very bad'

Here zOn and zOni perform the first of the two proposed functions, they confirm the notional boundary of i(he) and ei(she) respectively. The other function is visible in the following pair, where the demonstrative is neutral to the male/female distinction:

(68)

a. xei – zOn-Ok bisari nepalo
That-cl-acc finding neg-got 'I couldn't find that person (male)'

b. xei – zOni – k bisari ne palo
That cl – acc finding neg-got 'I couldn't find that person (female)'

In short, it is a myth that Asamiya nominals contain some kind of an Agreement element which is sensitive to gender. In the present analysis, information related to the sex of an entity is encoded in terms of a boundary definition feature which is only a part of a scheme of features that the individual classifiers are entitled to, by some language-specific idiosyncrasy.

Section 4. 4. : Classifiers and the syntax of quantification within DP:

In research related to the internal structure of the DP much energy is spent in identifying the clausal properties of a nominal structure. What is relatively ignored is

the syntax of quantification within a DP. That quantification is rather unique to nominals may appear as counter evidence to the structural parallelism of clausal and nominal constructions. In a notional approach, quantification of referents may be treated as effects similar to those produced by finiteness marking of verbs. Earlier we wondered whether the classifier could be analysed as parallel to tenses. We lack theoretical evidence for such an opinion, but we can record our observation that the effect of quantification looks like that of finiteness, at least notionally. The classifier can be treated as parallel to tense if abstract quantification which is realised by classifiers is thought to be parallel to finiteness marking where the syntactic item of tense works as a tool of realisation. Rigorous research needs to be done before one can reach such a conclusion. Our immediate attention is towards quantification exclusively in the syntax of nominal expressions.

4.4.1. Quantification through collective aggregation

We have seen in chapters two and three that the classifier gulo in Bangla and the classifiers bor and bilak in Asamiya and have been described as plural markers by the grammarians who used the terminology of English-based grammatical analysis. This is done because there is an inherent sense of 'more than one' in the expressions that involve them. The present analysis maintains that this sense of 'more than one' is a morpho-semantic property, rather than a morpho-syntactic property. Syntactic number which is available in Hindi and English showing agreement with the verb morphology and in Sanskrit showing agreement with both the adjective and the verb morphology – is absent both in Bangla and Asamiya. Given this, a classifier with collective aggregation, in either language, may appear alone on the Q head either with a strong formal feature [specific] or with a non-numeral quantifier which presupposes non–specificity. Non-numeral quantifiers are basically non-specific, hence they cannot select an optional feature [specific] when they come for numeration. So there are two contexts where a collective aggregation classifier would appear. One, with a non-specific quantifier and two, without any quantifier. In the first case there is no involvement of the optional feature [specific] in contrast to the second where this optional feature is selected. Notice the first type in the following data:

(69) Bangla:

a. kOtok gulo lok

few cl man 'a few men'

b. Oto gulo lok

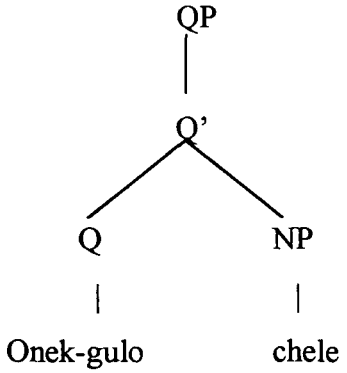
So many cl man 'so many men'

c. Onek gulo chele

Many cl boy 'many boys'

The data in (a) to (c) above corresponds to the structure proposed by Bhattacharya 2000:

(70)



On the basis of structural similarity and similarity in meaning, we can extend the same structure to the following Asamiya expressions too:

Asamiya:

(71) a. iman bor manuh

many cl man 'many people'

b. gutei bor kitap

all cl book 'all the books'

c. atai bilak bostu

all cl thing 'all the things'

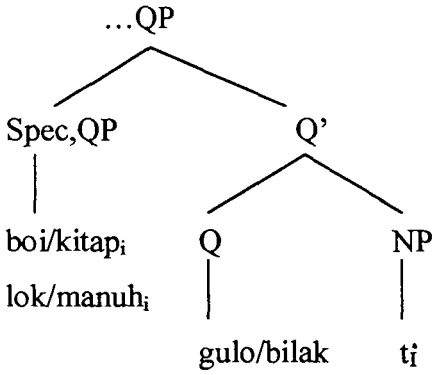
As regards specificity marking through collective aggregation classifiers, the data at our disposal allows us to extend Bhattacharya's analysis of similar Bangla data to Asamiya facts also. Compare the similar expressions in the two languages:

(72)

Bangla		Asamiya	
(a) lok-gulo		(a) manuh-bilak	
man-cl	'the men'	man-cl	'the men'
(b) boi-gulo		(b) kitap-bor	
book-cl	'the books'	book-cl	'the books'

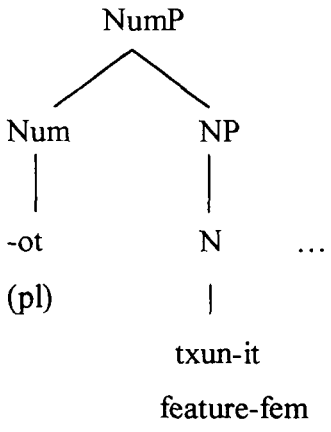
In all the four expressions, there is a feature-induced NP-movement involved. The classifier picks up the optional feature [specificity] while entering into numeration. The feature being an optional one, it needs to be checked and eliminated before spell-out. The NP has to reach the Spec,QP for the purposes of checking this feature. The structure is shown below:

(73)



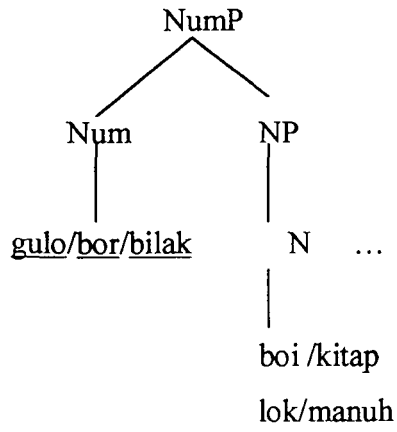
Our further argument for the view that gulo, bor and bilak are not plural number markers is that had they been plural markers, they would have induced head movement of noun to num as happens in Hebrew, a number language. Note the following from Ritter 1991:

(74) txuniot "features"



If gulo, bor and bilak were plural markers (cliticised), then the hypothesis would have been that Bangla and Asamiya both have a number phrase which is headed by one of them and the noun head-moves to join the plural marker in the Num head in the following way:

(75)



With Num heading a NumP, non-numeral quantifiers like SOb in Bangla and gutei in Asamiya would have to be in the Spec of NumP, or in the head of a phrase higher than the NumP. In either case, it will be impossible to generate the following grammatical expressions:

(76) a. SOb-gulo boi
all-cl book 'all the books' Bangla
b. gutei-bor kitap
all-cl book 'all the books' Asamiya

It is true that the following alterations of the above expressions are also possible:

(77) a. SOb boi-gulo
all book-cl 'all the books' Bangla
b gutei kitap-bor
all book-cl 'all the books' Asamiya

But they are not generated due to head-movements of N to Num; it is true of many languages that the universal quantifiers are able to float. That these alternations are not possible with other non-numeral quantifiers in both the languages rejects the possibility of such head movements:

(78) a. Eto-gulo boi /*Eto boigulo

so many cl book 'so many books' Bangla

b. iman-bor kitap/*iman kitap-bor

so many cl book 'so many books' Asamiya.

Moreover a head-movement based analysis cannot account for the specific expressions of the following type where there is an adjective phrase in the spec of NP in each of them:

(79)

Bangla:

a. bhalo boigulo

good book-cl 'the good books'

b. kalo lokgulo

dark man-cl 'the dark men'

Asamiya

c. bhal kitapbor

good book-cl 'the good books'

d. kola manuhbilak

dark man-cl 'the dark men'

Sharing the standard assumption that in languages with prenominal adjectives the Adjective Phrase is base-generated in the Spec of NP, the head movement of N to Num that such an analysis would postulate, would generate the following strings which are illicit in both the languages:

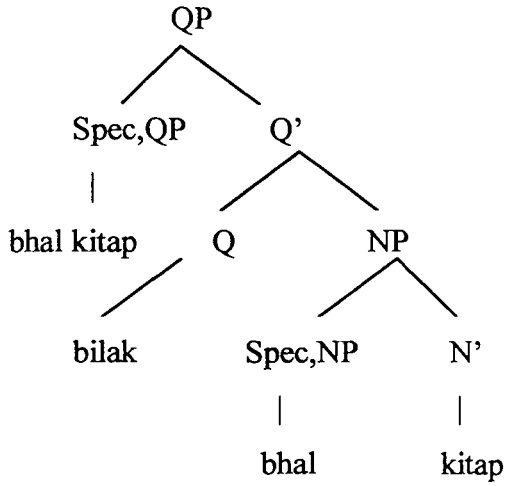
(80) a. * [$_{NumP}$ [$_{Num}$ boi$_i$ gulo [$_{Spec,NP}$ bhalo [t $_i$]]]]

b.* [$_{NumP}$ [$_{Num}$ kitap$_i$ bor [$_{Spec,NP}$ bhal [t$_i$]]]]

There is no language-internal mechanism which could raise the AP from SPEC,NP to a higher specifier position to generate the correct NP string. So it is more justifiable to accept the DP-internal NP-movement proposed by Bhattacharya 2000 for Bangla, to say that in Asamiya too, a specific expression which involves an

adjective and a collective aggregation classifier is generated when a whole NP, accommodating the AdjP in its specifier moves to Spec, QP, while the classifier heads the Q. Therefore we insist on the following derivation:

(81)



4.4.2. Interpretability of the classifier's aggregation value:

4.4.2.1. The Bangla facts:

While arguing that the classifier languages Bangla and Asamiya do not have the syntactic number dimension we said that these languages opt for aggregation instead of number. Now we will see how an aggregation value can be treated as an interpretable feature and hence accessible in LF and how it could have a bearing on the Full Interpretation regarding the mode of quantification. Dasgupta 1985 has shown the contrast of Ta and gulo, classifiers with different aggregation values, in relating them to the 'dual role of the quantifier Onek 'many'/ 'much'(see chapter two for details) in the following expressions:

(82)

a. Onek Ta kaj
   Q cl work 'much work'

b. Onek gulo kaj
   Q cl job 'many jobs'/ 'a number of jobs'

In his analysis, the quantifier Onek decides its choice of meaning (whether 'much' or 'many') after its combination with either Ta or gulo. In our version of a similar analysis, the computational syntax permits both the Q-cl-N strings in (a) and (b) above and it is in the LF that the Q-cl combination in (a) is interpreted as 'one'(an individual whole) and the Q-cl combination in (b) as 'in a collection'. Notice that the noun is unaffected and remains in its bare form throughout. Had gulo been a syntactic plural number like the English –s , heading a NumP above the NP, a head movement of N to Num would have generated an expression like the following (which is ungrammatical):

(83) * Onek kajgulo
Q work-cl

The difference between English and Bangla in this regard could be presented in the following way:

(84) a. $[_{QP}$ $[_{Q}$ many $[_{NumP}$ $[_{Num}$ $book_i$-s $[_{NP}$ $[_{N}$ t_i]]]]]]

b. $[_{QP}$ $[_{Q}$ Onekgulo $[_{NP}$ boi]]]

The fact that there are distinct entries of many and much in English lexicon could be attributed to the presence of the number dimension in English syntax which permits much work in contrast to many jobs. Unlike the way it is for much and many in English, the meaning of Onek is not specified by the Bangla lexicon. We would like to say that alternative arrangement done here is the specification of aggregation value of the classifier, which the quantifier is finally to join.

In Bangla, the operation of the classifier's interpretable feature i.e. its aggregation value in specifying the nature of quantification is not restricted to Onek only. It works for another quantifier sOb also. The primary distinctions between SOb-cl combinations can be understood from the following:

(85)

a. SOb-Ta khao
Q-cl eat 'eat the whole thing'

b. SOb-gulo khao

Q-cl eat 'eat all of them'

The first expression is used to approach the understood entity (denoted by a noun earlier in the discourse) indicating the item in its entirety, using a classifier with individual aggregation whereas in the second expression, it is a collection of entities that are referred to. This distinction can be maintained due to the use of a classifier with collective aggregation value. With the operation of Feature Compatibility Principle in the LF, the aggregation value interacts with the property of countability, an intrinsic feature of the noun specified by the lexicon of a particular language. We suppose that countability of nouns is not decided universally, it is done parametrically. Whether a language allows its nouns to be grammatically *countable* is expressed by the form in which generic nouns (which are semantically countable) are to appear in a particular language. Note the following expressions:

(86)

a. I like books. English

b. amar boi bhalo lage. Bangla

c. moi kitap bhal paow. Asamiya

Given that the above expressions are in paraphrase relation and that book, boi and kitap are semantically countable in their respective languages, there is a difference in the form of the noun in a generic expression. Absence of number morphology in Bangla and Asamiya is related to the fact that there is no scope for pluralisation and finally it is due to the absence of grammatical countability in these two languages. English, on the other hand, has grammatical countability, pluralisation and syntactic number, which are interrelated as we are suggesting, and are reflected on the form in which the generic noun appears.

The absence of grammatical countability in Bangla and Asamiya makes a nominal dependent on the classifier which, with its aggregation value would complete the interpretation of quantification, specifying the mode of quantification. We suggest that Full Interpretation is obtained when this information is available to the speaker.

Though the Bangla quantifier SOb is unspecified about the mode of quantification, its combination with a classifier before numeration helps the expression indicate the mode of quantification. In the following expression pairs, the first one is permissible but the second one is not, because the second one violates FCP:

(87)

a. SOb-gulo biskut
   Q-cl biscuit 'all the biscuits'

b. *SOb-gulo ca
   Q-cl tea

We would not leave the matter to Pragmatics; our suggestion is that the inherent semantic feature of the noun ca [-solid, -discrete, -collective] is incompatible with [+discrete, +collective] of gulo. That is why despite being syntactically well-formed, and similar in pattern with the expression in (a) above, the derivation in (b) cannot survive in the LF.

The other side of this fact is that a noun with the intrinsic features [-discrete, -collective] may choose to enter into a combination with a classifier with individual aggregation value where the whole entity is approached as one unit. In this case the features of ca are compatible with the classifier's feature [+individual]. The relevant expression is the following:

(88) SOb-Ta ca
   Q cl tea 'the whole tea'

4.4.2.2. The Asamiya facts:

The interaction of unspecified quantifiers, aggregation value and intrinsic features of the noun within the scope of FCP is not typical to Bangla only, nor is Bangla parametrically different from Asamiya in this regard. Asamiya facts show us that as a typical classifier language it prevents syntactic number and allows interpretable aggregation. The type of specification of quantifier meaning that Asamiya allows is similar to that in Bangla. In this case, the classifier's aggregation

value has a role to play. We can consider the unspecified quantifiers atai and gutei and see how they behave with the default individual classifier khini and the collective aggregation classifiers bor and bilak:

(89)

a. gutei khini kOtha
   Q cl word 'the whole story/fact/argument'

b. atai khini kam
   Q cl work 'the whole work'

c. gutei bor kOtha
   Q cl word 'all the stories/facts/arguments'

d. gutei bilak kam
   Q cl work 'all the works'

The nouns kOtha 'word' and kam 'work' being abstract nouns, they do not have any intrinsic feature to indicate their polarity in solid or discrete states. Hence, contextual meaning specification including the mode of quantification totally depends on the classifier's aggregation value. Here, in a combination of Q-cl-N, where Q is unspecifed and N is abstract, neither Q nor N can indicate whether the reference is made to an individual (whole) entity or more than one entity in a collective way. The significant distinction in interpretation is brought about by the classifier's aggregation value.

Consider another type of Q-cl-N combination where the quantifier is unspecified but the noun is intrinsically countable (for all non-generic references). Here also the distinction of meaning between individual and collective contributes to the Full Interpretation of the overall expression. The following is a minimal pair where only the classifier needs to alter in order to distinguish between whether the reference is made to one individual whole or a collection of similar entities:

(90) a. gutei-khOn kitap porhilow
   Q cl book read 'I read the whole book.'

b. gutei-bilak kitap porhilow
   Q cl book read 'I read all the books.'

Although the aggregation value is sensitive to the intrinsic feature of the noun, its primary association is with the quantifier. A quantifier may remain unspecified in the lexicon prior to numeration. In the DP-structure of Asamiya, the computational syntax selects a Q-cl combination together as one lexical item and introduces it to the numeration as a single syntactic object. A syntactic object, for us, results from "rearrangements of the properties of the lexical items of which they are ultimately constituted" (Chomsky 1995, p-226). The Q-cl combination is a single syntactic object which is to be interpreted at the LF interface. So, it is when the combination of Q and cl emerge as a single syntactic object that the properties of the quantifier and the classifier are rearranged. This explains why gutei-khOn could be so radically different from gutei-bilak. In its bare form, when it lies in the lexicon, what gutei (or for that matter atai and iman also), is packed with is a lexical feature [unspecified Q]. It is its combination with the classifier that derives the specified meaning.

We have the typological information from Greenberg 1972 that languages combine the three elements quantifier, classifier and noun only in the following ways: *a. Q-cl-N, b. N-Q-cl, c. cl-Q-N and d. N-cl-Q. It is also cross-linguistically attested* by Allan 1977 that N cannot intervene between Q and cl. Languages may vary in terms of the pre-nominal and post-nominal occurrence of the combination Q-cl. Our analysis of the Q-cl combination in Asamiya as one syntactic object corresponds to the typological facts mentioned above. For Bangla, Bhattacharya 2000 has already established that the Q-cl combination heads the QP. The five grammatical criteria determining the choice of head proposed by Zwicky 1985 which are used by Bhattacharya to establish the headship of Q-cl are: a. agreement, b. obligatory constituent, c. distributional evidence, d. subcategorizand and e. governor. Zwicky's criteria are based on pre-minimalist grammars. But there is scope within the minimalist program to reorganize these criteria. We refrain from doing that exercise here.

4.4.3. Quantification and individual aggregation:

One framework-independent justification for accommodating classifiers within the Q is that classification as a grammatical device is not universal but

quantification is. Languages can be parametrised on the basis of presence or absence of classifiers but not that of quantifiers. As there is no well argued proof that the classifier is a primitive of UG, it must be considered to be a unique manifestation of one of the fundamental constituents of UG. Research done so far as well as the typological survey would not deny it if that fundamental constituent is identified as the Q, which we may call the 'locus of quantificational features'. From our survey of the databases in chapters two and three we have seen that classifiers perform different roles such as expressing the mode of quantification and indicating specificity/definiteness through its environment. Of these two, the first one is an essential characteristic of a classifier and the second one is incidental. As regards Bangla and Asamiya, the observed variation environmentally relates more to the second than to the first. The distinction maintained by the quantified nominals of these two languages is that a change in the phrase order (from QP-NP to NP-QP) resulting from a DP-internal NP movement which generates a specific reading is all pervasive in Asamiya irrespective of the contents in Q. Almost all combinations that include the numeral quantifier, non-numeral quantifier, partitive and classifier allow specificity marking through phrase order change in Asamiya. Compared to Asamiya, this is much more restricted in Bangla. What makes the two languages similar is a consistent QP-NP order in quantified nominals of indefinite and non-specific reading. Here we are not considering finer details of the distinction between specificity and definiteness, but anchoring our proposals in the following generalisation of Enc 1991:

(91)

> "Definiteness and specificity of NPs are clearly related phenomena. Both definites and specifics require that their discourse referents be linked to previously established discourse referents. What distinguishes these two notions is the nature of linking."
>
> (Enc 1991, p. 9)

The distinction that we observe here is between two types of quantified nominals - one type is non-specific and indefinite and the other type is specific and definite. Taking the typological consideration that Bangla and Asamiya are numeral classifier languages which show the basic prenominal occurrence of a Q-cl

combination, we can assume that the second type can be syntactically derived from the first type in Asamiya in a way similar to what Bhattacharya 2000 proposes for Bangla. We shall first study the first type.

In the syntax of quantification where a classifier is involved with individual aggregation value, the broad aspect of UG to be considered is how the mathematical principle involved in the natural ability of counting the individual discrete items is structurally incorporated in the 'initial state' and how it could vary in case of 'attained states'. We use these two states to keep in mind the following distinctions made by Chomsky 1998:

(92)

> We understand Universal Grammar (UG) to be the theory of the initial state, and particular grammars to be theories of attained states.
>
> Chomsky 1998: p. 2.

We conjecture that the two sets of expressions below are identical at the initial state which means they are identical in the abstract level of representation but the difference between them is a matter of the difference at the attained state:

(93)

Set A	Set B		
a. two books	a. du khOn kitap	"two cl book"	'two books'
b. three men	b. tini zOn manuh	"three cl man"	'three men'
c. one hundred fruits	c. E-xO ta phOl	"one hundred cl fruits"	'one hundred fruits'

That there is a classifier in the Asamiya expressions and that there is none in the English expressions, are to do with the respective (particular) grammars of English and Asamiya. This way we answer our question raised earlier in this chapter by saying that the classifier is not an essential component of UG, but the quantifier is. A speaker of Asamiya has to learn the right use of classifiers in right contexts by their understanding of not only the structural environmental aspects (such as Q___N) but also the cognitive aspect of translating perceptual information into the boundary definition features and the sociocultural information into other lexical features. These two aspects are learnt, parametrised and synthesised with the abstract principles of the

UG. We suggest that in the case of quantified (counted) nominals of Asamiya (and also Bangla) the mental process of mathematical counting has two stages: in the first stage the abstract counting facilitated by the UG takes place, and the particular grammar takes over in the second stage. The basic mathematical ability that works in coordination with the development of linguistic competence allows the child to relate the cognitive exercise of counting in the abstract to expressing it in terms of syntactic constituents. Whereas the UG principle would offer the linguistic transposition of mathematical quantification with the mode of counting and structurally assign the job to a Q(P), the parameter concerned of a particular language would determine what should be the composition of Q. In case of a classifier language the numeral quantifier would have the parametric option of combining with an individual aggregation classifier. In both Bangla and Asamiya, individual aggregation classifiers are more numerous than the collective ones. The Q in a classifier using language shows a consistent pattern in providing either a combination of a quantifier and a measure noun or a quantifier and a classifier. The second option is not available in the non-classifier using languages.

The relevant issue here is what is the need for using a count unit in the form of an individual aggregation classifier in numeral quantification? We can count on Cheng and Sybesma 1998 whose work is on the prototype of classifier languages – Chinese. They explain that in a language like English, the cognitive mass-count distinction is grammatically encoded at the level of the noun, reflecting why some Num-N combinations are permitted but some are not, e.g.:

(94) a. one woman
b. *one water

But in Chinese, a classifier language, this distinction is grammatically encoded at the level of the classifier. According to them all nouns in Chinese are like mass nouns. They are rendered countable with the necessary use of a measure word or a classifier. Both the types are shown in the data below:

(95) a. sang ping jiu
three cl(bottle) liquor 'three bottles of liquor'

b. san ba mi
three cl (handful) rice 'three handfuls of rice'
c. san ge ren
three cl person ' three persons'
d. san zhi bi
three cl pen 'three pens'

Cheng and Sybesma 1998 call the underlined items in (a) and (b) massifiers (which are nouns) whereas the underlined items in (c) and (d) are classifiers. The classifiers form a closed class and they are different from the massifiers in their grammatical behaviour in other contexts. But the similarity is that they make the nouns countable the same way the massifiers do so.

Syntactically, for a closer examination, we should consider the following characteristics of a classifier language as more than a mere coincidence:

(96)

a. All nouns are grammatically mass nouns.
b. There is no number dimension in syntax.

Let us compare this to the other set of facts: The following are the characteristics of a non-classifier-using language:

(97)

a. All nouns are not grammatically mass nouns.
b. In syntax, count nouns can be singular or plural.

In a language like English, which opts for Number, the singular/plural distinction applies only to the countable nouns. A count noun appears in the lexicon in its base form. Its plural form is a syntactic construct (we share the standard assumption that inflection is syntactic whereas derivation is morphological). Added to this, we should note that numeral quantification in a number language works on the basis of the following precondition:

(98)

In numeral quantification of count nouns in a number language, the noun must appear in its plural form.

(We assume that bare plurals also undergo pluralisation)

In other words, in a Number language, pluralisation takes place simultaneously with numeral quantification.

So far as the classifier-using languages are concerned, we suppose that the nouns are basically mass nouns and not count nouns. What follows from this is that there should be a similar supplementary process which is equivalent to pluralisation in a non-classifier language. With our earlier observation that quantification is universal but classification is not, we now add that in order to realise the abstract principle of quantification in UG, a language develops grammatical devices such as numeral quantification and partitivisation. In a number language, only partitivisation show numeral-light noun-noun combination because partitives are formed to deal with the mass nouns. In a classifier using language, partitivisation and numeral quantification do not show any distinctions in terms of their constituents, e.g.:

(99)

a. Ek glas jOl
   One glass water "a glass of water" Bangla

b. tini samus seni
   three spoon sugar "three spoons of sugar" Asamiya

c Ek jon lok
   one cl man "one man" Bangla

d. tini dal pensil
   three cl pencil "three pensils" Asamiya

We propose that the nouns in (a) and (b) are mass nouns both semantically and grammatically, but the nouns in (c) and (d) are count nouns only semantically; grammatically they are mass nouns. By some default mechanism (diachronic evidence might be of some help, but that is not our concern here) are mass nouns in

their grammatical behaviour. This implies that pluralisation is impossible. But there must be a process equivalent to pluralisation which occurs simultaneously with numeral quantification. We would have called that process 'singularisation' but that may create confusion since we have been maintaining that there is no Number dimension in a classifier language. We therefore propose the following:

(100)

> In a classifier language, numeral quantification requires a simultaneous process of Individuation, in order to create units to make the grammatically uncountable nouns countable.

In the absence of Number dimension which works hand-in-hand with countability, the syntactic function of a classifier is to individuate the nouns in order to make it suitable for numeral quantification. Clearly, on valid semantic grounds, classifiers with collective aggregation value cannot perform the function of individuating items. An individual aggregation classifier (other than the default ones), contains a feature or a number of features which is/are the abstractions of the properties of a referent denoted by a noun. Despite the fact that its feature matrix is rich in Asamiya and poor in Bangla, it always represents the items in individuated form when they appear in numeral quantification. Features related to the physical properties (conceptual boundary definition features) are not active in the interfaces until Individuation is established.

4.5. Chapter summary:

In this chapter, we have tried to understand the common principles that apply to the DPs of Bangla and Asamiya. The typological information in the first section has helped us in focussing our attention to the major typological similarity in nominal constructions -- the use of classifiers in the syntax of quantification . We have seen that the classifiers perform two roles namely, expressing quantificational description and determining reference of a noun through boundary definition features. Using the insights of minimalism, we have proposed an exhaustive feature system which operates in the lexicon. We have suggested that the feature matrix of the classifier

works in coordination with the intrinsic features of the noun. We have proposed a Feature Compatibility Principle (FCP) which determines Full Interpretation. While showing the usual qualities of the syntax of quantification in Bangla and Asamiya, our discussion is based on the assumption that there is no syntactic expression of Number in these languages. We have argued that what appears as Number is in fact Aggregation, which has two values: Individual and Collective. Collective aggregation can express the sense of 'more than one'. The evidence for the operation of Aggregation values is seen in specifying the meaning of unspecified quantifiers. Addressing the question why there is a need for individual classifiers, we have proposed that the grammar of a classifier language needs a process of Individuation to obtain countability since all nouns are grammatically mass nouns in a classifier language.

Chapter Five

The Parting Line: Aspects of Parametric Variations

5.0. Introduction:

In this chapter, we shall address the question: What are the differences between the Determiner Phrases (DPs) in Bangla and Asamiya? The discussion starts from the standard assumption (mentioned earlier) that the South Asian languages are divided into two groups, the *Gender languages like Hindi and the Class languages like Bangla and* Asamiya. We have noticed in the earlier chapter that the two class languages are structurally similar to a great extent. Yet there is one sharp difference which is formalised in this chapter in terms of an Excapsulation Parameter. The process in which a non-substantive demonstrative can be substantivised by the lexical features of the classifier shared with the classified noun to make its reference more appropriate is called by a new name, Excapsulation. It is argued that the demonstrative-classifier combination available frequently in Asamiya and very marginally in Bangla is not a regular morphological process in which a combination shares category features with the right-hand element. Having established the fact that the classifier is purely nominal, it is shown that the demonstrative-classifier combination retains the category specification of the demonstrative, i.e. (+N, +V). Excapsulation is possible in Asamiya because its classifiers are semilexical since their feature matrix almost duplicates that of the nouns. Excapsulation is restricted in Bangla because its classifiers are mainly functionalised.

Typologically, the Eastern Indic languages are marked by the use of a classifier in a noun phrase which includes a numeral or a quantifier. A language like Hindi, which has Grammatical Gender is distinct from a Class language like Asamiya or Bangla. It is discussed in Dasgupta and Bhattacharya 1993 that the Class languages have a system of classifiers which corresponds to the gender system in the Gender languages. Among the Classifier-using languages, Asamiya and Bangla share so many features that some of the

dialects of Bangla are mutually intelligible with Asamiya. This triggered a dispute in the past as to whether there exists a boundary separating the two languages. In the area of nominal constructions, as we have seen in earlier chapters, the environment of a Bangla classifier is somewhat similar to its Asamiya counterpart especially when it comes to its distribution in an indefinite expression which accommodates a numeral/quantifier, a classifier and a noun. In Bangla, a definite expression involving a numeral (a small number), a classifier and a noun shows a change in the word order. Whereas in an indefinite noun phrase the numeral-classifier combination precedes the head noun, in a definite one, it follows the head noun. Treating definiteness marking as a syntactic process in Bangla, several attempts are made to explain this fact (see Dasgupta and Bhattacharya 1993, Ghosh 1995, Bhattacharya 2000). Asamiya is also known for this phenomenon but there the numeral need not be a small number unlike Bangla. The presence of a classifier instead of a gender-number marker in a noun phrase, and the almost similar distribution of classifier-numeral combination in definite and indefinite noun phrases group Asamiya and Bangla together against Hindi and other similar Gender languages. On the other hand, the parameter proposed in this chapter shows the distinction between Asamiya and Bangla. The fourth chapter focussed on the role of classifier in relation to the quantifiers and showed the similarity of the two languages. This chapter shifts the focus from the relationship between Quantifier/Numeral and Classifier to the one between Demonstrative and Classifier. The difference studied in this regard is formalised as the following parameter:

(1)

> **Excapsulation Parameter**: In a Classifier-using language, the DP's Demonstrative Complex may present the Classifier material either (a) quite generally, where the Classifier is semilexical (the Asamiya value) or (b) in quantifier supported and a few restricted cases where the Classifier is largely formalised (the Bangla value).

5.1. Demonstrative-classifier cooccurrence:

In this section we shall see that in Asamiya, the Demonstrative can occur with the classifier regardless of whether the latter is supported by a numeral or a quantifier. This is in contrast with the Bangla Demonstrative which allows a classifier next to it mainly when the classifier specifies quantification either in association with the Numeral or indicating a particular sense of quantity by itself.

This section has four subsections: The first subsection is devoted to the exposition of apparent distinctions in the distribution of Demonstrative and Classifier in the two languages. The second subsection presents a review of the relevant section in Bhattacharya 2000 which proposes the location of the Demonstrative in the DP. In the third subsection, we shall return to the present issue and show that Bhattacharya's analysis does not take into account a special case of Demonstrative-Classifier coocurrence in Bangla which is an evidence of marginal Excapsulation in Bangla. The fourth subsection shows how the only Bangla classifier that occurs with the Demonstrative is distinct from the other regular classifiers in the language.

5.1.1. Apparent distinctions :

In this subsection, we shall look at Bangla and Asamiya nominal expressions each of which consists of a demonstrative, a classifier and a noun. We will highlight the cooccurrence restrictions of a classifier and a demonstrative in Bangla. We may start with two types of expressions: in the first type, the Classifier is combined with a numeral and in the second type it is not. In one case, Bangla permits both (a) and (b) below where the Classifier material is post-nominal:

(2) a. ei boi du To
this book two cl 'these two books'

b. ei boi Ta
this book cl 'this book'

On the other hand, if the classifier material is prenominal, as it is in some indefinite expressions, we shall see that only the (a) form, where the Classifier is supported by an overt Q/Num is permitted and the (b) form is excluded as a nominal phrase[1]:

(3)

a. ei du To boi
this book cl book 'these two books'

b. * ei Ta boi[1]
this cl book

In contrast, all the four combinations are acceptable as nominal phrases in Asamiya, as shown in (4) and (5) below :

(4) a. ei kitap du khOn
this book two cl 'these two books'

b. ei kitap khOn
this book cl 'this book'

(5)

a. ei du khOn kitap
this two cl book 'these two books'

b. ei khOn kitap
this cl book 'this book'

The difference emerging out of a comparison between (3b) and (5b) is not exceptional, but general. Consider the ordinary human classifier jon/zOn which both the languages share. The similarity is shown in (6) and (7) below :

(6)

a. ei du jon chele Bangla
this two cl boy 'these two boys'

b. ei chele du jon
this boy two cl 'these two boys'

(7)

a. ei du zOn lOra — Asamiya
this two cl boy — 'these two boys'

b. ei lOra du zOn
this boy two cl — 'these two boys'

The principal difference is that Asamiya, but not Bangla, permits the cases like (5b) for this classifier also as seen in (8) below :

(8)

a. ei zOn lOra — Asamiya
this cl boy — 'this boy'

b. * ei jon chele — Bangla
this cl boy

Besides, we may look at the wh-phrases corresponding to (8a) and (8b). Bangla and Asamiya are languages which do not show either overt wh-movement or movement of a wh-feature. A wh-type interrogative clause in these languages has the same order of its constituents as its declarative counterpart with the only change brought in a by a wh-substitution. For example, the DP in (5b) can be a part of an Asamiya declarative sentence like the following :

(9)

a. ei khOn kitap mor
this cl book mine — 'This book is mine'

A corresponding wh-type sentence will be the following:

b. kon khOn kitap mor
this cl book mine — 'Which book is mine?'

Notice that the wh-word kon "which" in (9b) occupies the same slot as the demonstrative ei "this" does in (9a).

In contrast, the Bangla equivalents of the above two sentences show a difference in the placement of the Classifier, for example:

(10)

a. ei boi Ta amar
this book cl mine 'This book is mine'

b. kon boi Ta amar
which book is mine 'Which book is mine?'

Note here, that a change in the order of the constituents in (10b) results in an ungrammatical expression:

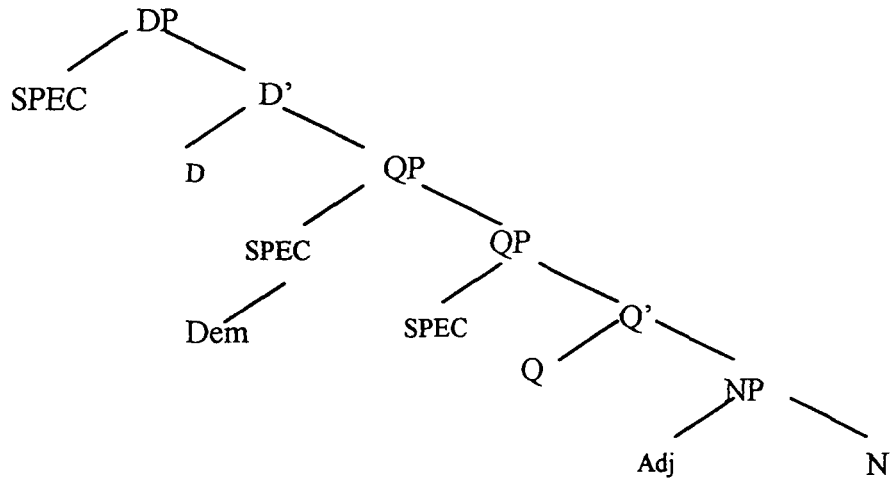
(11) * kon Ta boi amar
which cl book mine

So, the principal difference regarding presence/absence of Demonstrative-Classifier cooccurrence is preserved in the wh-type question sentences also. This may be a clue to the fact that the apparent distinctions in the Bangla and Asamiya DPs are not due to a mere incorporation of Classifier material into the Demonstrative complex, but it is something more.

5.1.2. A review of Bhattacharya 2000:

Bhattacharya 2000 offers an analysis of Bangla DP structure based on the Specificity effects obtained within the DP. He proposes that the Bangla DP has a three-tier structure where the DP takes a QP. The proposed structure is the following :

(12)



Here, the head of QP is proposed to be a fused head (Q/Num+Cla) as this combination is part of the QP domain, Dem is an adjunct of QP and the [SPEC, QP] is the landing site for specific object NPs. The leftward movement of NP to [SPEC, QP] is due to a [Specificity] feature of the Q head.

So far as the Demonstrative is concerned, Bhattacharya considers two types of constructions involving it. They are the following:

(13)

a. ei du-To boi
this two-cl book 'these two books(here)' : deictic

b. ei boi du-To
this book two-cl 'these two books' : specific

According to his analysis, the NP boi "book" in (13b) understood as specific moves out of its immediate NP shell to a higher position. In support of his argument that it is an NP and not a noun that undergoes the movement, he gives the following example:

(14)

oi lal boi du-To
that red book two-cl 'those two red books'

He says that this movement is driven by the 'attractor' Q. Adopting the framework of Chomsky 1995, Bhattacharya assumes that a filled Q comes in the numeration with an optional feature of Specificity. This being a –Interpretable feature, it has to be checked by an nP moving to the checking domain of Q by spell-out. If the Q selected for numeration is nonspecific, then there is no need for checking and there is no leftward movement. This explains why in the following nonspecific expressions there is no scope for leftward movement:

(15)

i. Num-N sequence:

a. car pas
four side 'four sides'

b. tin dik
three direction 'three directions'

ii.Measure expression :

c. pamc peyala ca
five cap tea 'five cups of tea' (Data quoted from Dasgupta 1983)

5.1.3. Evidence of marginal demonstrative-classifier cooccurrence in Bangla:

In this subsection, we shall present some data which have not been taken into account by Bhattacharya. Consider the following Bangla expression where a classifier unsupported by a numeral or quantifier occurs after the demonstrative: the following Bangla expression where a classifier unsupported by a numeral or quantifier occurs after the demonstrative:

(16)

ei Tuku dudh
dem cl milk 'this little milk'

Even if the Dem is considered to have a deictic reference which does not necessitate an upward movement of the NP as it has been the case for (13a), we have no idea why such combination is not permissible in the following cases:

(17)

a. *ei kichu Ta dudh
   dem some cl milk

b. *el sOb Ta dudh
   dem whole cl milk

c. *ei khanik Ta dudh
   dem some cl milk

Since the noun in (13) is countable and the noun is (17) is uncountable, there is a possibility that a deicitic expression is permissible in the Spec of adjoined QP only when the noun is countable. The following examples in (18) may be furnished in support of such a view:

(18)

a. ei kO Ta boi
   dem few cl book 'these few books' deictic

b. ei boi kO Ta
   dem book few cl 'these few books' specific

The examples in (18a) and (18b) are similar to (13a) and (13b) respectively. We propose to accept Bhattacharya's analysis and make an attempt to extend it to the area we are focussing on. Consider the following expression which involves a noun and a classifier:

(19) dudh Tuku
   milk cl 'the little milk'

The classifier Tuku contains some information regarding the quantity. We have seen in chapter two that Tagore 1891 also observed this aspect of the classifier Tuku (see

examples (8) and (9) in chapter two). To adopt Bhattacharya's system, Tuku would be in the head of QP and it would have the feature (Specific) which would draw the specific NP dudh "milk" from its base to the (SPEC, QP) position for checking. In the expression in (20) below, the same movement is involved. The demonstrative is in the Spec of adjoined QP:

(20)

ei	dudh	Tuku	
dem	milk	cl	'this little milk' (specific)

We would examine now, how far the following three expressions, each of which includes a demonstrative, a Q/cla and a noun in the same order, are comparable:

(21)

a.	ei	du	To	boi	
	dem	two	cl	book	'these two books'
b.	ei	kO	Ta	boi	
	dem	few	cl	book	'these few books'
c.	ei	Tuku	dudh		
	dem	cl	milk		'this little milk'

Note that if the demonstrative is removed from the expressions in (21a) and (21b), the remnants are perfectly grammatical nonspecific expressions:

(22)

a.	du	To	boi	
	two	cl	book	'two books'
b.	kO	Ta	boi	
	few	cl	book	'a few books'

This does justify that the dem is in a different slot, say, in the Spec of adjoined QP. But removal of demonstrative from (21c) results in an ungrammatical expression as shown be:

(22)

c. *Tuku dudh

cl milk

This shows that the configuration of (21c) is different from (21a) and (21b). There could be a counter argument that (22c) is ungrammatical as the classifier there is not supported by a quantifier. But that is not valid as shown by (23) below:

(23)

*kichu Tuku dudh

some cl milk

The nearest possible correct expression would be the following:

(24)

kichu Ta dudh

some cl milk

The above discussion can be summarised in three points:

a. Ta behaves differently from Tuku;
b. Tuku does not allow a quantifier before it;
c. Tuku can get combined with a demonstrative and the combination can modify a noun, but Ta can not do so.

We would argue that in the expression in (21c) the demonstrative and classifier cannot be separated since the second one is within the capsule of the first one. Evidence of this type is marginal in Bangla but there are plenty of them in Asamiya. In fact all Asamiya classifiers and partitives participate in such constructions. We shall show in the next subsection that among the most frequent classifiers in Bangla, only Tuku takes part in a demonstrative-classifier combination, and it is unique in this regard due to its lexical information content unlike other Bangla classifiers.

5.1.4. Classifier distinction in Bangla:

We have seen in the earlier subsection how the Bangla classifier Tuku acts differently from Ta. In this subsection, we shall propose a classifier distinction in Bangla. Considering their frequency of use, we shall take up only five classifiers for the discussion here. They are : a. the default classifier Ta, b. the inanimate individual aggregation classifier khana c. the human individual aggregation classifier jon, d. the general collective aggregation classifier gulo and e. the extraordinary classifier Tuku.

The first point to note is that Tuku does not allow a numeral/quantifier before it unlike the other four. It is illustrated in the following data:

(25)

a. paMc Ta boi
   five cl book 'five books'

b. tin khana ruTi
   three cl roti 'three rotis'

c. kO jon lok
   few cl man 'a few men'

d. kOtok gulo lok/boi
   some cl man/book 'some men/book'

e. *tin Tuku dudh
   three cl milk

We should also take into account the fact that Tuku strictly selects a noun which has an inherent lexical feature [-Countable], for example,

(26)

ei Tuku ca/jOl/dudh/*boi
dem cl tea/water/milk/*book 'this little tea/water/milk'

The nouns in (26) may receive a "countable" treatment only when they take part in a partitive construction with container noun which has the lexical feature [+Countable] inherent in it, e.g.,

(27)

a. du kap ca
two cup tea 'two cups of tea'

b. Ek glas dudh
one glass milk 'a glass of milk'

c. tin botol jol
three bottle water 'three bottles of water'

The second point regarding the distinction between Tuku and the other four classifiers is that in the constructions which involve a demonstrative, a noun and a classifier, there is a scope for alternation of the position of classifier if it is Tuku. But that scope is strictly impossible if the classifier is any one among the other four. Compare sets A and B below:

(28)

A		B	
a. ei dudh Tuku		a. ei Tuku dudh	
dem milk cl	'this little milk'	dem cl milk	'this little milk'
b. ei boi Ta		b. *ei Ta boi	
dem book cl	'this book' (specific)	dem cl book	
c. oi lok Ta		c. *oi Ta lok	
dem man cl	'that man' (specific)	dem cl man	
d. Sei ruTi khana		d. *Sei khana ruTi	
dem roti cl	'that roti' (specific)	dem cl roti	
e. Sei phul gulo		e. *Sei gulo phul	
dem flower cl	'those flowers' (specific)	dem cl flower	

Another aspect which brings out the essential difference between the extraordinary classifier Tuku and the default classifier Ta is that though both of them occur post-nominally with an uncountable noun, the meaning is different. Tuku refers to the item with the presupposition that it is very little in quantity. This already existing information (say feature) of quantity inherent in Tuku as a lexical feature may be the reason that it does not allow any other quantifier before it as we have seen in (23) above. On the other hand Ta refers to the item as a whole without any reference to its quantity. The difference is shown in the following data:

(29)

a. jOl Tuku kheye nao
   water cl eat take 'drink the little water'

b. jOl Ta kheye nao
   water cl eat take 'drink the water'

We can sum up the discussion in this subsection with a proposal that the extraordinary classifier Tuku should be called a quantificational classifier, a unique one in Bangla. The other four shown in (28), which are the representatives of the rest of the classifiers in Bangla, can be called Qualitative classifiers since their reference is restricted to the qualities like (In-) animacy. We have seen in section 4.2. how Bangla (Qualitative) classifiers have less number of boundary definition features and are relatively empty compared to the Asamiya classifiers which are rich in their lexical content.

5.2. Description of the Parameter:

This section deals with the description of Excapsulation Parameter. This is done in two steps. First, Bangla and Asamiya are shown to be similar as classifier-using languages and their similarity is looked at against their distinctiveness from Hindi. The second step snows how Asamiya is different from Bangla. It is argued that the presence of a mechanism (and its generalised operation) in which a non-substantive demonstrative

absorbs the lexical features of a classifier to make a reference more appropriate, is what distinguishes Asamiya from Bangla. All Asamiya classifiers participate in this mechanism whereas among the Bangla classifiers it is the extraordinary quantificational classifier Tuku which does so. The mechanism is named as Excapsulation.

5.2.1. Similarities shared by Bangla and Asamiya nominals:

In this subsection, we shall see how, as Class languages, Bangla and Asamiya are similar. To make it convenient for a reader to appreciate the similarities, these two Class languages are shown to be distinct from a Gender language like Hindi. We do not intend to describe all the constituents of a noun phrase. Instead, we shall restrict our attention to the behaviour of classifier and demonstrative, the two participants of the proposed process of Excapsulation. They will be looked at in comparison with their counterparts in Hindi, a language whose phi-feature organisation is basically different from these two languages.

5.2.1.1. Classifiers :

It is an established viewpoint that Classifier is a Gender-like configuration. Dasgupta and Bhattacharya 1993 argue that the Classifier agreement in Bantu languages indicate this similarity. There, unlike their Indic varieties, the classifiers are prefix type. They show agreement with the noun they are attached to. This behaviour of classifiers shows that they are similar to gender. The authors formalise the typological bifurcation of the South Asian languages into two major groups (Class languages and Gender languages) in terms of a node called Badge in the DP which shows either Gender or Class. They suggest that the postnominal classifier in Bangla appears in the same slot where the first case in Hindi appears. The first case position in Hindi morphologically interacts with the Gender and the declension of the noun. This slot interacts with the noun's intrinsic features without disturbing the body of the stem. This slot is shown with underlines in the examples :

(30) a. laRki yoM Hindi
girl fem-pl 'girls'(oblique)

b. meye gulo Bangla
girl cl 'the girls'

In addition to these, we may look at the Asamiya construction below:

(30) c. soali bilak Asamiya
girl cl 'the girls'

We notice an interesting coincidence here. That is, whereas in Hindi, Number feature is merged with the Gender, in Bangla and Asamiya what merges with Classifier is not Number but something else which looks like Number. By Number, we mean Grammatical Number which is a feature of the AGR in the phrase/clause structure. In this connection it will be relevant to recall the idea of Aggregation presented in Dasgupta 1985 which we have reviewed in chapter two. Aggregation is defined as 'a contrast between individual and collective modes of aggregating or considering entities' (Dasgupta 1985:37). It is equivalent to Number in the sense that a language selects either Number or Aggregation. The main difference is that in a Number language the Number feature is specified in an NP but in an Aggregation language, an NP need not be specified for Aggregation. Moreover, in an Aggregation language, verbs and adjectives do not agree with the noun for Aggregation. To consider Bangla and Asamiya to be typologically different from Hindi, we propose that added to the Gender/Class distinction, there is also a Number/Aggregation distinction. This proposal supplements our discussion in chapter four where we treated Aggregation as something common to both Bangla and Asamiya.

To understand further how classifiers mark Aggregation in Asamiya and Bangla and how there is no Aggregation in Hindi due to the absence of classifiers there, we may look at the following data:

(31)

a.	ei boi kOTa amar		Bangla
	dem book few-cl mine	'These books are mine'	
b.	ei boi gulo amar		Bangla
	dem book cl mine	'These books are mine'	
c.	ei kitap kei khOn mor		Asamiya
	dem book few-cl mine	'These books are mine'	
d.	ei kitap bilak mor		Asamiya
	dem book cl mine	'These books are mine'	
e.	ye kitabeM meri haiM		Hindi
	dem book-pl mine are	'These books are mine'	

Notice that though the first four expressions (31a-d) apparently indicate plurality, the way they do so is not the same. In (a) and (c), the item following the noun is a combination of a classifier and a non-numeral quantifier. As opposed to this in (b) and (d), the same slot is occupied by only a classifier. In these expressions it is the classifier, rather its Aggregation value (Col./Indiv), which decides whether there should be numeral attached to it. If the classifier's Aggregation value is Individual, it can have a non-numeral Q attached to it, to indicate the sense of 'more than one'. On the other hand, if the classifier's Aggregation value is Collective, it does not allow a numeral/non-numeral quantifier as it is shown in the examples (b) and (d). We cannot think of a similar alternative for the Hindi expression in (e), because the item which goes with the noun stands for Number, specified as Plural here.

About the Number/Aggregation distinction, we may note one more point. In the Aggregation languages, the noun itself remains unaffected (i.e. no suffixation) regardless of whether the noun phrase denotes one entity or more than one. This is evident from the following data:

(32) a. Ek Ta chele Bangla
one cl boy 'one boy'

b. du To chele
two cl boy 'two boys'
c. kO Ta chele
few cl boy 'a few boys'

Here, (a) denotes one entity whereas (b) and (c) denote more than one. But in all the three expressions the noun remains bare. The fact is the same in Asamiya as we can see from the following expressions:

(33) a. E zOn lOra
one cl boy 'one boy'
b. du zOn lOra
two cl boy 'two boys'
c. kei zOn lOra
few cl boy 'a few boys'

In contrast, in a similar Hindi noun phrase, the numeral stands on its own and the noun is marked for Number with its clearly visible morphology of singular (zero) and plural, which are merged with Gender, e.g.:

(34)

a. Ek laRki
one girl 'one girl'
b. do laRkiaM
two girl-pl 'two girls'

Besides, unlike the Aggregation languages, a Hindi noun phrase specified as plural does not show any distinctions regarding what kind of a quantifier precedes the noun, e.g.:

(35)

a. do laRke
two boy-pl 'two boys'

b. kuch laRke
some boy-pl 'some boys'

Here the Number (Plural) remains indifferent of the mode of quantification. To reinforce the point, we may note that the expression in (35b) has two translation equivalents in Bangla as shown in (36) below:

(36)

a. kOek Ta chele
few cl boy 'a few boys'

b. kOtok gulo chele
some cl boy 'some boys'

This is possible because Aggregation is looked after by the classifiers. A language which has selected Gender instead of Class cannot show Aggregation related variations.

To sum up, in this subsection, we have shown the typological difference between Hindi on one hand and Bangla and Asamiya on the other. The difference is determined by the choice of either Gender or Class. This difference is related to the typological distinction proposed by Greenberg 1972 who proposes that classifier-using languages do not show the Number dimension. We have also added the point that whereas Number merges with Gender in Hindi, the merger in Asamiya and Bangla is the Number-like feature called Aggregation which has two values, Individual and Collective, none of which shows up in an AGR unlike Number and Gender. They remain in the classifier's feature matrix.

5.2.1.2. Demonstratives :

In this subsection, we shall discuss the demonstratives of Asamiya and Bangla and show how they are different from the Hindi demonstratives. Hindi is used as a reference point. We have seen in chapter one that though Abney 1987 treated demonstratives at par

with the articles and assigned them to D°, subsequent work by Giusti 1994, 1997 and Bernstein 1997 has established that demonstratives are base-generated in a specifier of a functional projection below DP. Bernstein 1997 argues that in the languages where the demonstrative has either a deictic interpretation or an indefinite specific interpretation, the deictic demonstrative raises upto the DP-projection overtly whereas for the other one there is only covert feature movement of D. Giusti 1997 assumes that languages vary with respect to the level at which the demonstrative moves to SPEC, DP which is its final destination. According to her, demonstratives are like articles regarding their lack of descriptive content, but they are crucial for the referential index interpretation of the noun phrase. Besides, like articles, they constitute a closed class but they belong to the broad semantic field of deixis which includes adverbials, pronominals and (possibly) the aspect morphemes. However, she leaves it open what their category is: Adjectival, since they are the modifiers of the noun, or a new category, say, Indexical.

Before coming to the Asamiya and Bangla demonstratives, let us see how the nature of demonstratives may vary from one language to another. Hany Babu 1997, in his comparison of English and Malayalam demonstratives, points out that the English demonstratives have a substantive element unlike those in Malayalam. This substantive element is due to the number inflection which is inherent in the English demonstratives. He shows the contrast between the English demonstratives and the determiner the (which has a pure D element):

(37) a. I want this/that/these/those.
b. *I want the.

In other words, an English demonstrative is (D+AGR) whereas the English determiner is only D. The AGR is responsible for the substantive quality of an English demonstrative. Malayalam demonstratives are non-substantive, lacking the AGR inherent in it. Our response to this is that the English demonstrative can be more specifically described as (D+Num) instead of (D+AGR), because the other participant in AGR phenomenon namely Person is invisible here. Besides, the D can be further specified as (± Proximal).

With this point in mind we may see whether the Bengla and Asamiya demonstratives are like those in English. The following are a few specific expressions involving the demonstrative with their English equivalents.

(38)	Bangla			English
a.	ei	boi	Ta	this book
	dem	book	cl	
b.	ei	boi	du-To	these two books
	dem	book	two.cl	
c.	Sei	boi	Ta	that book
	dem	book	cl	
d.	Sei	boi	gulo	those books
	dem	book	cl	
	Asamiya			English
e.	ei	kitap	khOn	this book
	dem	book	cl	
f.	ei	kitap	du-khOn	these two books
	dem	book	two.cl	
g.	xei	kitap	khOn	that book
	dem	book	cl	
h.	xei	kitap	bilak	those books
	dem	book	cl	

Bangla, English and Asamiya demonstratives used in (38) can be compared with the help of the following table:

(39)

Language	Demonstrative	Proximal value	Number value
English	this	+Prox	+Singular
	that	-Prox	+Singular
	these	+Prox	-Singular
	those	-Prox	-Singular
Bangla	ei	+Prox	Not Available
	Sei	-Prox	Not Available
Asamiya	ei	+Prox	Not Available
	xei	-Prox	Not Available

Note that in the Asamiya and Bangla expressions, the demonstratives differ in one dimension: + or - proximal. Regarding Number, it remains unaffected, no matter whether the whole nominal expression indicates one entity or more than one. In contrast, in their English counterparts, the demonstrative changes according to the number specification of the noun, as well as the proximal value.

There is a basic difference in the way the Asamiya/Bangla expression obtain specificity and the way their English equivalents do so. For the first case, it is the NP movement to SPEC, QP, to check Specificity feature (We take that Bhattacharya's (2000) analysis for Bangla works for the Asamiya constructions also). For the English constructions, the demonstrative is in SPEC, DP (Giusti 1997). We suggest that the ability of the English dem to rise upto SPEC, DP is due to its substantive quality. It checks its referential features in the Spec-Head configuration of DP. In a language where the demonstratives are not essentially substantive, they cannot rise upto SPEC, DP.

We have mentioned in chapter four that in the classifier languages, the referential features are located in Q, which also hosts quantificational features. A demonstrative in Bangla and Asamiya, while generated in a lower specifier position, cannot rise even upto SPEC, QP to check its referential features unless some mechanism is adopted to substantiate the demonstrative. Before we talk about such a mechanism we may confirm that Bangla and Asamiya demonstratives are not essentially substantive.

In English, the demonstrative (both as adjective and as pronoun) can stand on its own, either followed by a noun or all by itself, e.g.,

(40)

a. I want this/that/those.

b. I want this book/that book/these books/those books.

But this type of constructions are not permitted in Asamiya and Bangla. We present below the incorrect forms in these two languages.

(41)

Asamiya

a. moi ei-khOn bisarw
I dem-cl want 'I want this'

b. *moi ei bisarw
I dem want

c. moi ei kitap khOn bisarw
I dem book cl want 'I want this book'

d. *moi ei kitap bisarw
I dem book want

Bangla

e. ami ei Ta cai
I dem cl want 'I want this'

f. * ami ei cai ii
I dem want

g. ami ei boi Ta cai
I dem book cl want 'I want this book'

h. *ami ei boi cai
I dem book want

In this regard, Bangla and Asamiya are similar to each other but they are different from Hindi. A Hindi demonstrative can stand on its own like the English one, but unlike Bangla and Asamiya: e.g.,

(42)

a. mujhe wo cahie
I-dat dem want 'I want that' Hindi

b. *amar oi cai
I-gen dem Bangla

c. *mok xei lage
I-dat dem needed Asamiya

In Hindi, a Number language, a Number specified noun can follow the Number specified demonstrative, for example,

(43) a. yah kitap meri haiM
this book mine is 'This book is mine.'

b. ye kitabeM meri haiM
these book mine is 'These books are mine.'

Constructions of this type are absent in Bangla and Asamiya. Compare (43) with (41d) to confirm. The Hindi demonstratives can stand on their own due to their substantive quality. They are like English ones since they too have an AGR (Number) element inherent in them which enables them to agree in Number with the following noun.

In short, the demonstratives in Bangla and Asamiya are non-substantive compared to those in Hindi which are substantive. To take English also into consideration, we can say that languages showing number distinction in the demonstratives are substantive. We leave this conjecture open for further examination.

Our next task will be to see how Asamiya and Bangla, both of which are (a) Class languages, (b) Aggregation languages and (c) languages with non-substantive demonstratives, differ from each other and why they are different.

5.2.2. Excapsulation:

In this subsection, we shall see how a demonstrative-classifier capsule available frequently in Asamiya (and marginally in Bangla) is partly like an adjective since it is generated in the Spec of NP and is partly unlike it since it moves upto Spec of QP to check its referential features in the Spec-Head configuration of Q, the locus of Referentiality in a Classifier language. We shall also see that Asamiya regular adjectives are like their Bangla counterparts – they do not move on their own; they move when the whole NP moves to check its Specificity feature. Recall that Giusti leaves two options for the category specification of the demonstratives : Indexical or Adjectival. We suggest that the demonstrative which is generated in the Spec of adjoined QP is Indexical with its two values + deictic and – deictic but the dem-cla capsule which is generated at Spec, NP is adjectival. There should not be any problem about this distinction since distributionally they are complementary.

First, let us look at the adjectives in Asamiya. In a non-specific noun phrase the order is the following:

(44)

[$_{QP}$	[	du	khOn	]	[$_{NP}$	bhal	kitap]]
		two	cl			good	book

There is a change of phrase order in a specific expression as shown below:

(45)

[$_{QP}$ bhal kitap [du khOn] [~~bhal kitap~~]
good book two cl good book.

If only the adjective moves the expression will be ungrammatical as we can see from the following:

(46)

* [bhal [du khOn] [~~bhal [kitap~~]]
good two cl good book

If a deictic demonstrative is added to the expression in (43) above, then we get the following configuration:

(47) [ei [[du khOn [bhal [kitap]]]
dem two cl good book

With the non-deictic demonstrative present in a specific expression will be the following :

(48) [ei [bhal kitap] du khOn] [~~bhal kitap~~]]
dem good book two cl good book

Now let us see what happens when there is a dem-cla capsule in a noun phrase. Look at the following data from Asamiya:

(49)

a. ei-khOn kitap almari-t rakha
dem-cla book almirah-loc keep 'Keep this book in the almirah'

b. *ei-khOn bhal kitap almari-t rakha
dem-cla good book almirah-loc keep

In (49a) the dem-cla capsule is generated in Spec, NP and has moved till the Spec, QP. The ungrammaticality of (49b) shows that a combination of dem-cla-adj is not permissible prenominally. The correct form of (49b) is the following in which the demonstrative is in the Spec of adjoined QP and the NP has moved to the Spec of QP when the classifier is in Q^0 :

(50)

ei	bhal	kitap	khOn	
dem	good	book	cl	'this good book'

The fact that a dem-cla capsule does not cooccur with an adjective is applicable to other Asamiya classifiers also, e.g.,

(51)

a. *ei-gOraki bhal manuh-e mok sini-pay
dem-cla good man-nom me knows

b. *ei-zOni dhunia soali-e mok bhal-pay
dem-cla pretty girl-nom me loves

c. *ei-zOn buddhiman lOra-i mok upOdex die
dem-cla intelligent boy-nom me advice gives

We conclude here that since the dem-cla capsule is generated in the Spec of NP, it bars the adjective from being generated in the same slot.

This observation holds for the cases of marginal excapsulation in Bangla also. The following data can be considered to show that:

(52)

a. ei-Tuku dudh kheye nao
dem-cla milk eat take 'Drink this little milk.'

b. *ei-Tuku gOrom dudh kheye nao
dem-cla warm milk eat take

c. ei gOrom dudh Tuku kheye nao

dem warm milk cl eat take 'Drink this little amount of warm milk'

The underlined expression in (52a) is similar to that of (49a) and can be generated in the same way and (52b) is ungrammatical for the same reason as (49b) is. The expression in (52c) is permissible because the deictic demonstrative is in the Spec of adjoined QP and the adjective is in the Spec of NP. The NP has moved to the Spec of QP. The classifier is in Q^0.

The question remains: What is the need for a demonstrative to form a capsule with a classifier in Asamiya? Our proposal is that the reason lies in the notion of a non-substantive demonstrative that Asamiya and Bangla have. In English type languages, the demonstrative can go to the spec of DP because of its inherent AGR (Number). Asamiya and Bangla do not have Number. So the demonstrative needs some means to substantiate itself to be able to move up, into the projection of Q where it can check its Referential features. Asamiya grammar allows its classifiers to help the demonstratives in this case but the Bangla grammar does not. This basic difference is not because of the demonstratives, but because of the classifiers. Asamiya classifiers, unlike the Bangla ones, can support the demonstratives by packing their lexical features (which we call boundary definition features and which are compatible with the intrinsic features of the noun that follows) into the capsule of the dem. We are using the metaphor of a 'capsule' to indicate that it is not a regular morphological process where the categorical features of a right-hand element percolates upto the node dominating the construction. The situation is unique here; the dem-cla combination does not have the category of classifier (+N, -V), rather it retains the adjectival nature of the demonstrative. In other words, a dem-cla capsule is (+N, +V). Logically this can happen only if the classifier joins the dem before numeration having withheld its own categorical feature. The Dem-cla capsule as one lexical item comes for numeration with the categorial features of the dem, (+N, +V) and the semantic features of the classifier (for example, Aggregation value, shape, constitution etc.). We shall see later that an Asamiya classifier is semi-lexical and its lexical feature

matrix almost duplicates that of the noun that it classifies. The classifier extends the boundary definition features related to Animacy, Humanness, Sex, Formality, Shape, Size etc. to the demonstrative and thus the reference becomes more specified. Moreover, since the classifier contains Aggregation feature (which is a Number-like feature), the combination of a non-substantive demonstrative and a classifier acts as an equivalent to a substantive demonstrative in the English type languages. The following Asamiya expressions and their English translations bear evidence to this:

(53)

Asamiya			English
a. ei-khOn	kitap		
dem-cla	book	:	This book.
b. ei-bilak	kitap		
dem-cla	book	:	These books.

It is a matter of further investigation why Bangla (which also has non-substantive demonstrative and has Aggregation reflected in classifiers) does not permit this type of constructions where dem-cla combinations work as demonstrative adjectives, e.g.

(54)

a.	* ei-Ta	boi
	dem-cla	book
b.	*ei-gulo	boi
	dem-cla	book

On the other hand, it is interesting to see that Bangla permits the dem-cla combination to work as a demonstrative pronoun, e.g.,

(55)

a. ei-Ta	pORo		b.*ei-Ta boi	pORo
dem-cla	read	'Read this (one)'	dem-cla book	read
c. ei-gulo	dao		d. *ei-gulo boi	dao
dem-cla	give	'Give these (ones)'	dem-cla book	give

We would say that (55b) and (55d) are ungrammatical since Bangla does not permit the regular classifiers to participate in Excapsulation to form demonstrative adjectives but it allows them to participate in regular morphological combinations with the demonstratives. The dem-cla combinations in (55a) and (55c) have the category specification (+N, -V) which is percolated from the right-hand element, the classifier. The formation of dem-cla combination from demonstrative pronouns in Bangla is restricted only to the two classifiers shown in (55) above. The other Bangla classifiers do not take part in this process as we can see from the data below:

(56)

a.	*ei-khana	khao	c.	*ei-gacha	dao
	dem-cla	eat		dem-cla	give
b.	*ei-paTi	Selai kOro	d.	*ei-jon	aSche
	dem-cla	stitch do		dem-cla	coming

But in Asamiya, all the classifiers get combined with the demonstrative to form demonstrative pronouns ; four representative ones are shown below :

(57)

a.	ei-khOn	khowa	c.	ei-dal dia
	dem-cla	eat		dem-cla give
	'Eat this (one)'			'Give (me) this (one)'
b.	ei-zopa	kaTi dia	d.	i-zOn ahise
	dem-cla	cut do		dem-cla coming
	'Cut this (one)'			'This one (man) is coming'.

To sum up, we have shown in this subsection, how the demonstrative-classifier combinations work[iii] and how Asamiya and Bangla are different in this regard. Two types of combinations are discussed: (a) dem-cla capsule – which is adjectival and (b) dem-cla combination which is pronominal. Only one Bangla classifier can form the first type of combination and only two can from the second type. In contrast, all Asamiya classifiers

form both types of combinations. Since the demonstratives are similar in both the languages, it is the difference in classifier systems which brings about this contrast.

5.3. Classifiers are Nouns:

In this section, we shall establish the view that the Classifier is nominal in character. Our assumption is that since it is not a primitive of UG, it must be a particular manifestation of one of the four basic categories N, V, A and P. Apparently it is similar to an adjective but the very fact that adjectives are to be generated in the Specifier position whereas the Classifier is capable of working as a head showing its maximal projection (See Tang 1990 and Ghosh 1995) just like a noun, indicates the basic dissimilarity of classifiers and nouns. In many languages some regular nouns are seen to work as classifiers in some contexts. When and why a noun has to work as a classifier is beyond the scope of our study. This section is divided into three subsections: the first subsection deals with the nouns working as classifiers; the second subsection deals with the classifiers working a representatives of nouns and the third subsection shows how some classifiers participate in morphological processes as nominal entities.

5.3.1. Nouns as Classifiers: Evidence from Vietnamese, Bangla and Asamiya:

Although the origin of Vietnamese language is different from Bangla and Asamiya, the three languages share a particular phenomenon in which a noun behaves like a classifier in some contexts. Loebel 1994 shows how one and the same noun may function as a classified noun or as a classifier. She says the notion of a classifier is not absolute; a noun becomes a classifier relative to the classified noun if it is in a taxonomic relation with that. Her Vietnamese data supports such a view:

(58)

a.	cai	cay	
	cla	tree/plant	'a tree/plant'
b.		cay rau	
		cla veg. Plant	'a vegetable plant'
c.		rau can	
		cla calery	'a celery'

(E.g. 4.2 in Loebel 1994)

In Bangla, a classifier cannot work as a noun, though it may represent an understood noun. Such a restriction is possibly due to the fact that in a Class language, the degree of lexicality / functionality that its classifiers have is fixed. That is why the behaviour of classifiers differs from one language to another. We will see in the next section how the semi-lexical Asamiya classifiers differ from the functionalised Bangla classifiers. The Vietnamese classifiers must be purely lexical and hence can exchange roles with nouns quite freely. That some Bangla nouns look like classifiers when they cooccur with the numerals when the num-cla (noun) combination occurs prenominally and the same nouns allow postnominal classifier or numeral-classifier combination was noticed by Ghosh 1995 but the phenomenon could not be explained due to the non-availability of tools. The examples can be used here:

(59)

a.	Ek Ta phul	
	one cl flower	'one flower'
b.	Ek gocha phul	
	one bunch flower	'a bunch of flowers'
c.	*Ek gocha Ta phul	
	one bunch cl flower	
d.	phul-er gocha Ta	
	flower-gen bunch cl	'the bunch of flowers'
e.	phul-er gocha gulo	
	flower-gen bunch cl	'the bunches of flowers'

f. phul-er gocha du To
flower-gen bunch two cl 'the two bunches of flowers'

The noun gocha is used as a classifier in (59b) where it occurs in the same environment as the classifier Ta in (59a) does. The ungrammaticality of (59c) shows that their cooccurrence is not permitted. The rest of the examples (59 d-f) show that gocha can act as a noun taking postnominal classifier or num-cla combination. The point that we make here is that unless the classifier is nominal in its category specification, a noun cannot occupy its slot. The theory of Extended Projection can explain this. The noun gocha "bunch" in (59b) is in the Q slot which is between D and N. D is the extended projection of N. N, D and Q share all categorial features (C-features). N, Q and D are different in terms of their Lexical/Functional features (F-features). In (59a) and (59b), Ta and gocha have the same F-feature. The difference in the role of gocha in (59b) and in (59 d,e,f) is due to that of F-features.

In Asamiya also, some nouns share the environment with classifiers. We will discuss more on this later. Now we present some data in consolidating our point that classifiers are nominal:

(60)

a. E ta phul
one cl flower 'one flower'

b. E thopa phul
one bunch flower 'a bunch of flowers'

c. *E thopa ta phul
one bunch cl flower

d. phul-Or thopa to
flower-gen bunch cl 'the bunch of flowers'

e. phul-Or thopa bor
flower-gen bunch cl 'the bunches of flowers'

f. phul-Or thopa du ta
flower-gen bunch two cl 'the two bunches of flowers'

The data in (60 a-f) corresponds to (59 a-f). We discuss the behaviour of the nouns like gocha and thopa in section 5.4.

5.3.2. Classifiers representing nouns:

In this subsection, we shall show that the nominals which do not have overt nouns treat the classifiers as representatives of the nouns which are understood. This representation is necessary and is possible because the classifiers share categorial identity with the nouns. Both in Bangla and Asamiya there can be a nominal expression without an overt noun. The following combinations are possible in such expressions:

(61)

a.	Numeral and Classifier	:	in both Bangla and Asamiya
b.	Ordinal and classifier	:	marginally in Bangla but generally in Asamiya
c.	Adjective and Classifier	:	- do -
d.	Demonstrative and Classifier (as in (55) and (57))	:	- do -

Such a combination appears in the syntax as a complete DP which means its categorial specification at the level of maximal (functional) projection is (+N, -V). It is established by Grimshaw 1991 and Riemsdijk 1990 that the essential property that ties the lexical projections and their functional heads together is their categorial identity. The Adjective, Demonstrative and Ordinal are (+N, +V) and they are to be generated in the Specifiers. Numeral is capable of merging with the classifier head. So in all the combinations in (61) the classifier works as the nominal semi-lexical head (with maximal projection of course) sharing the identical categorial specification with the functional head, D. In short, the classifier is (+N, -V).

Let us look at the following examples of nounless DPs in Asamiya and Bangla.

(62)

a. tomake Ek-jon khuMjchilo — Bangla
you-acc one-cl search.pt.cont.3p 'One person was looking for you.'[iv]

b. ei-gOraki notun zEn paisw — Asamiya
dem-cl new as seem 'This person seems to be new.'

c. lal-Ta amake dao — Bangla
red-cl me give 'Give me the red one.'

d. xoru-zOni yiat thake — Asamiya
houng-cl here stays 'The young (er/est) one (fem) stays here'.

The underlined expressions above would be interpreted as the following:
(the serial numbers correspond to the same in (62))

(63)

a.	Ek	jon	lok	
	one	cl	man	'one man'
b.	ei-gOraki		manuh	
	dem-cl		man	'this man'
c.	lal	jiniS	Ta	
	red	thing	cl	'the red thing'
d.	xoru-zOni		soali	
	young-cl		girl/daughter	'the young (er/est) daughter'

This interpretation is done at the LF in the Grammar of the respective language. We suggest that in syntax, the Classifier represents the lexical noun and perform its functions required for the Spell-out and it is authorised to do so by virtue of its categorial identity with the noun as well as with the D. The fact that Asamiya classifiers have more lexical

content than their Bangla counterparts (see section four) can be related to the observation that nounless DPs are more frequent in Asamiya than in Bangla (see (61) above).

5.3.3. Nominal nature of classifiers in the syntax of words :

The classifiers in both Asamiya and Bangla do not act as independent words. However, some of them participate in the word formation processes and act like other nominal roots. To understand this, we may look at how they form words with an adjectival bound morpheme (suffix) – hin "-less" which is available in both the languages. The suffix -hin "less" is not a classifier though it is added to a noun. Its combination with a noun results into an adjective which clearly modifies a noun. See the following examples:

(64)	a.	Sima-hin	bhalobaSa	Bangla
		end-less	love	
		[N Adj] $_{Adj}$	N	
	b.	goti-hin	jibon	Bangla
		motion-less	life	
		[N Adj] $_{Adj}$	N	
	c.	Ortho-hin	kOtha	Bangla/Asamiya
		meaning.less	discourse	
		[N Adj] $_{Adj}$	N	
	d.	chOndo-hin	kobita	Bangla /Asamiya
		rhyme. less	poem	
		[N Adj] $_{Adj}$		

All the four items that -hin is attached to are nouns. The suffix -hin is adjectival and the new word is an adjective due to the categorial feature percolation from -hin, the righthand element, to the node dominating the new word (see Righthand Head Rule in Williams 1983).

We can look at this fact in a different way. We can say that the adjectival suffix -hin has a selection restriction frame to which only nouns can fit in. So any item which is combined with -hin must be a noun. Bangla default human classifier jon, which cannot act as an independent noun, can participate in a morphological process similar to the one shown in (64) above, justifying its nominal nature, e.g.,

(65) jOnohin prantor 'man-less field'

Similarly, Asamiya human formal classifier gOraki also enters into the selection restriction frame of -bihin (variant of -hin) as a nominal item :

(66) gOrakibihin bostu 'owner-less thing'

Though very few classifiers take part in such morphological processes, this particular behaviour of them reinforces the point that the classifiers are nouns.

To sum up the discussion in this section, we have given syntactic, semantic and morphological evidence to support the hypothesis that the Classifier is a manifestation of Noun.

5.4. Variation in the features of nouns and classifiers: Determination of language boundary:

The conclusion in the earlier section that all classifiers are nouns leaves us with the question: How, then, can two Class languages be different from each other? In order to answer this we will argue in this section that two class languages may vary in the degree of lexicality that the classifiers show. To be specific, what makes Asamiya different from Bangla is the fact that Asamiya classifiers are semi-lexical and the Bangla ones are relatively functionalised. First we shall see that in Asamiya, classifiers and semi-lexical nouns have similar distributional patterns in indefinite and definite nominal

constructions. Then we will see how Bangla classifiers behave differently from the semi-lexical nouns. Finally, we will make an attempt to minimise the difference between semi-lexical nouns and classifiers.

5.4.1. Semi-lexical nouns:

We have discussed in chapter one that the idea of 'semi-lexical nouns' or 'light nouns' is developed by Riemsdijk 1997, 1998 and Vos 1999 in support of Riemsdijk's version of 'extended projection' which is a modified form of Grimshaw's (1991) system. Grimshaw deals with only the lexical and functional categories to show that a lexical node and its corresponding functional node must have categorial identity, for example, if the categorial value of the lexical node N is (+N, -V), it will be the same for its functional projection D. Riemsdijk, while trying to account for the internal cohesion of a phrase, proposes a few modifications to the notion of 'extended projection'. The main ones among them are the following:

a. there exists a functionality level between the lexical and functional heads, which can be called semi-lexical level;
b. semi-lexical heads occur within the nominal M-projections and this gives more evidence for the Categorial Identity Thesis (CIT);
c. the semilexical node also have the same category as syntactic nodes connecting the lexical and functional heads within an extended projection (with the phrasal node);
d. the lexical, semilexical and functional heads within an extended projection have categorial identity, i.e. their categorial features are identical though the other features may be different.

To use the feature system of Riemsdijk 1998 (as given in (58) of chapter one) the entities within the nominal domain should have the following features:

(67) C-features : [+/-N], [+/- V]
[+N, -V] = N, D, Q...
[+N, +V] = A, Deg, Dem ...

L-features: [+/- PROJ, +/- MAX]

[-PROJ, - MAX] = Head (H^0)

[+PROJ, - MAX] = Intermediate node (H')

[+PROJ, + MAX] = Maximum Projection (HP or H^{max})

[-PROJ, + MAX] = Unprojected particles.

F-features: [+/- F, +/- G]

[-F,-G] = lexical node

[+F,+G] = functional node

[-F,+G] / [+F,-G] = semi-lexical node

To understand further how the semi-lexical heads work, we can look at his examples of German and Dutch restrictive appositives:

(68)

German:

a. der Monat Mai

the month May 'the month of May'

b. meine Tante Anna

my aunt Anna 'my aunt Anna'

Dutch:

c. de planeet Venus

the planet Venus 'the planet Venus'

and also in the Dutch Direct Partitive Constructions (DPC) as discussed in Vos 1999, given in (70) below. These constructions have the following structure:

(69) Det-N1-N2

where N1 stands for a semi-lexical noun. Vos identifies six subtypes of N1s which are the following:

(70)

a. Quantifier Noun (QN):

een aantal voorbeelden

a number examples 'a number of examples'

b. Measure Noun (MN):

drie liter melk

three liter milk 'three liters of milk'

c. Container Noun(ConNs):

die krat bier

that case beer 'that case of beer'

d. Collective Nouns (CoIN):

een kudde olifanten

a herd elephants 'a herd of elephants'

e. Part Nouns (PartN):

een snee brood

a slice bread 'a slice of bread'

f. Kind Nouns (KindN):

vijf soorten zoogdieren

five types mammals 'five types of mammals'

Riemsdijk 1998 observes that many instances of $N1^{V}$ have a certain similarity with nominal classifiers as found in many non-Indo-European languages. In this context we make an attempt to look at the behaviour of semi-lexical nouns in Asamiya and Bangla since it is already noticed that many semi-lexical nouns behave like classifiers in Bangla and Asamiya.

5.4.1.1. Asamiya Collective nouns: Some hidden facts:

The majority of grammarians who have described Asamiya nominal constructions in the past and present, have always acknowledged the presence of the dimension Number

due to their overemphasis of corresponding English and Sanskrit facts. While constructing arguments in favour of Greenberg 1972 and Dasgupta 1985 that a classifier language excludes Number, we have elaborated on how Asamiya and Bangla show a dimension of Aggregation instead of Number. Aggregation is argued to be an Interpretable feature (in the sense of Chomsky 1995) with two values, Individual and Collective. A classifier can have one of the values, for example the classifier zOn has individual aggregation value whereas the classifier bilak has collective aggregation value. Just as the classifiers with collective aggregation value have been treated as plural markers, the whole group of Asamiya collective nouns were also treated as plural markers.

Burman and Dutta Baruah 1997 apparently react to such a treatment mentioning that Asamiya has a device to refer to a group or a collection of individuals or items by 'attributively using some nouns of multitude proper' with regular common nouns. Though most of the grammarians have listed them with the 'plural morphemes', they do not accept it as a correct treatment. They emphasize on two aspects:

a. They are free morphemes, and
b. They carry 'a sense of definiteness'. The following are the expressions with collective nouns that they consider:

(71) a. sOrai–zak
bird–flock 'the flock of birds'

b. manuh-zak
man-group 'the group of men'

c. gOru–pal
cow–herd 'the herd of cows'

d. lOra-pal
boy-group 'the group of boys (not good but naughty)

e. phul–thopa
flower–bunch 'the bunch of flowers'

f. tamol–thok
betelnuts–bunch 'the bunch of betelnuts'

g. narikOl-thok

coconut-bunch 'the bunch of coconuts'

Their discussion stops with the description itself, and it does not elaborate on the following key issues:

a. Are they compounds?

b. Where is the necessary definite reading coming from?

We feel that mere juxtaposition of two nouns does not mean that they are compounded. Two nouns can occur side by side in two different contexts, namely, in compounds and in direct partitive constructins (DPCs). Vos 1999 has established the distinction as it applies for Dutch. She shows that DPCs are distinct from Nominal Compounds, though both the forms apparently show the juxtaposition of two Ns. We have seen in chapter one that the following Dutch examples are considered by her to show the distinction:

(72)

a. een stapel wolken

a pile (of) clouds 'a pile of clouds'

b. een stapelwolk

a pile-cloud 'a cumulus'

c. stapels wolken

pile-pl(of) clouds 'piles of clouds'

d. stapelwolken

pile-cloud-pl 'cumuli'

e.* Stapels wolk

In the above data, (72a) and (72c) are DPCs which involve an N1 and an N2 where either can take the plural marker. The expression stapelwolk in (72b) and (72d) is a nominal compound which does not allow a plural marker in between, as seen in (72e).

Though we insist that this type of difference exists in all classifier languages, it will not be possible for us to apply the above test to the data at our disposal because we have shown that Asamiya does not have a number morpheme. We propose to test with the quantifier particle /kei/:

(73) a. sOrai-kei-zak
bird-particle–flock 'the flocks of birds'

b. manuh-kei-zak
man-particle-group 'the groups of men'

c. goru-kei-pal
cow-particle–herd 'the herds of cows'

d. lOra-kei-pal
boy-particle-group 'the groups of boys (not good but naughty)

e. phul-kei–thopa
flower-particle–bunch 'the bunches of flowers'

f. tamol-kei–thok
betelnuts-particle–bunch 'the bunches of betelnuts'

g. narikOl-kei-thok
coconut-particle-bunch 'the bunches of coconuts'

We analyse the above expressions as purely syntactic products. The other option would be to say that -kei- is an infix which indicates plurality; but that analysis is not in conformity with the analysis of similar data which involves a numeral in the environment of kei, for example:

(74) Indefinite:

a. kei-zOn lOra ahisil
Q-cl boy came 'A few boys came.'

b. tini-zOn lOra ahisil
three-cl boy came 'Three boys came.'

Definite:

c. lOra-kei-zOn bOr bhal

boy-Q-cl very good 'The boys (who were few in number) were very good.'

d. lOra-tini-zOn bOr bhal

boy-three-cl very good 'The three boys were very good.'

Now we reply to the two questions mentioned above. First, the expressions in (71) are not compounds. If an expression like sOrai-zak "bird-flock" could have been a compound, it would not get a definite reading, for NN compounds in Asamiya (just like their Bangla counterparts) are usually indefinite, for example:

(75)

a. lOra-soali ahise neki?

boy-girl have come q. 'Have boys and girls come?'

b. pan-tambul dila?

betel leaf betel nut gave 'Have you given betel leaf and betel nut?'

c. kitap-pOtrO anisa?

book-paper brought 'Have you brought books and notebooks?'

In short, the expressions in (71) above are **not** similar to those in (75).

We analyse the expressions in (71) as a products of syntax and not of morphology. We present here the full paradigm with a collective noun:

(76) A. Indefinites:

a. E - zak sOrai

one ColN bird 'a flock of birds'

b. tini- zak sOrai

three ColN bird 'three flocks of birds'

c. kei- zak sOrai

Q ColN bird 'few flocks of birds'

B. Definites:

d. sOrai-zak
   bird-ColN 'the flock of birds'

e. sOrai-tini-zak
   bird-three-ColN 'the three flocks of birds'

f. sOrai-kei-zak
   bird-Q-ColN 'the few flocks of birds'

We have an explanation for the change in the word order in the definite constructions. The definite reading comes from this change. The contrast between the sets A and B in (76) above reminds us of similar patterns of classifier constructions where the order Q-Cl-N changes into N-Q-Cl to give a definite/specific reading.

5.4.1.1.a. Bangla collective nouns:

The Bangla collective nouns show similarity with their Asamiya counterparts only in indefinite/non-specific constructions. The Bangla expressions similar to the set A in (76) are the following:

(77)

a. Ek jhaMk pakhi
   one flock bird 'a flock of birds'

b. tin jhaMk pakhi
   three flock bird 'three flocks of birds'

c. kOek jhaMk pakhi
   few flock bird 'a few flocks of birds'

Unlike Asamiya, Bangla does not permit a change in word order for the above expressions. A set which would be similar to the set B in (76) is totally absent in Bangla:

(78) a. *pakhi jhaMk
   bird flock

b. *pakhi du jhaMk
bird two flock

c. *pakhi kOek jhaMk
bird Q flock

To compare the environment of collective noun in Asamiya and Bangla, we present the following table:

(79)

	Bangla	**Asamiya**
Q(Num)-ColN-N (Indefinite)	Present	Present
N-Q(Num)-ColN (Definite)	Absent	Present

If we assign the semi-lexical noun into the semi-lexical category Q, we can accommodate the numeral and the collective noun within the Q head of QP. Translating the word-order-related information in terms of phrase order, we get the following comparison:

(80)

	Bangla	**Asamiya**
QP-NP (Indefinite)	Present	Present
NP-QP (Definite)	Absent	Present

We shall see in the next subsections that this contrastive pattern is available for some other types of semi-lexical nouns also.

5.4.1.2. Comparing container nouns:

It has been noticed by grammarians that Asamiya container nouns do play a role in definiteness marking especially when they occur post-nominally. In this regard, they behave like the classifiers. But there is hardly any unanimity about their status in the nominal expressions. Goswami(G.C.)1965 observes that for non-discrete items, a

container or the like may be used as a **classifier**. Words like bati "bowl" or ghOr "house" may assume the role of a classifier in the following expressions:

(81)

a. E bati pani
   one bowl water 'a bowl/cup of water'

b. pani bati
   water bowl 'the bowl/cup of water'

c. E ghOr manuh
   one house man 'one family'

d. manuh ghOr
   man house 'the family'

The expressions in (81b) and (81d) appear to be nominal compounds to people who are not the native speakers of Asamiya or are not informed about this particular type of constructions. Had they been NN compounds, the semantic head would have been the right hand side elements (following the Right Hand Head Rule of Williams 1983). We can examine the following sentence to see which element is the head:

(82) pani bati khai bhal palow
water bowl drinking good felt 'I felt good drinking the bowl of water'

It is quite obvious then that the verb kha "drink" would not select bati "bowl" to meet the requirements of semantic well-formedness conditions. On the other hand, among the following pair of sentences the verb bhaga "break" selects a different nominal expression:

(83) a. *pani-bati bhagile
water-bowl broke

b. pani-r bati-to bhagile
water-gen bowl-cl broke 'the water-bowl is broken'

The minimal pair in (83) confirms that in a Noun-ConN combination the noun has to work as a semantic head which is not possible if the combination is a compound.

The similar behaviour of what we call semi-lexical nouns today has been noticed by Goswami (A.C.) 1971, who puts them under the umbrella of **quantifiers**. While describing the quantified nominal expressions in Asamiya, he showed that almost all quantifiers (except the classifiers like ta and khOn) can occur as the head of a noun phrase, e.g. :

(84) a. thoka to daNor
cluster cl big 'the cluster is big'
b. kaMhi khOn dhunia
dish cl good 'the dish is good'

The noun in (84a) is a collective noun and the one in (84b) is a container noun according to the terminology that we are using now. He observes that both of them can occur in a postnominal environment when the expression is definite, e.g.:

(85)
a. mas kaMi
fish dish 'the dishful of fish'
b. kol thoka
banana cluster 'the cluster of bananas'

We can furnish a pair of expressions similar to (83) above to show that the expressions in (85) are not compounds.

Borah 1995 shows that a classifier and a container noun (both are 'partitives' in his term) may occur in the same environments with similar configurations for definite and indefinite constructions. He also stops with description. However, his arrangement of data is useful for our purposes:

(86) A. Indefinites:
a. E kOlOh^{vi} pani
one jar water 'a jar of water'

b. tini kOlOh pani

three jar water 'three jars of water'

c. kei kOlOh pani

few jar water 'a few jars of water'

B. Definites:

d. pani kOlOh

water jar 'the jar of water'

e. pani tini kOlOh

water three jar 'the three jars of water'

f. pani kei kOlOh

water few jar 'the few jars of water'

Borah shows that the container noun kOlOh shares the same environment with the classifier, for example,

(87) A.

a. E zOn alOhi

one cl guest 'one guest'

b. tini zOn alOhi

three cl guest 'three guests'

c. kei zOn alOhi

some cl guest 'some guests'

B.

d. alOhi zOn

guest cl 'the guest'

e. alOhi tini zOn

guest three cl 'the three guests'

f. alOhi kei zOn

guest some cl 'the guests'

As we can see from the data in (86) and (87) above, Borah deals with the container noun and the classifier respectively, but calls both of them partitives. We cannot ignore this mismatch of terms. In our study we treat the item kOlOh as a container noun (and hence a semi-lexical noun) and the item zOn as a classifier. Partitive is the particular construction Q-N1-N2 or Q-cl-N. We have discussed in chapter four why classifiers occur in partitive constructions.

Sharing of environment by classifiers and container nouns is not peculiar to Asamiya alone, it happens in all classifier languages irrespective of the word order of the numeral/quantifier, classifier/container noun and the noun. The following are examples from Bangla which is similar to Asamiya in indefinite constructions involving these items:

(88)

a. du To boi
   two cl book 'two books'

b. du bakSo boi
   two box book 'two boxes of books'

Here, the word order is the same as they are in Asamiya. In Burmese, a classifier language where the order is Noun-numeral-X in indefinite constructions, the slot X is filled by either the classifier or the container noun, for example:

(89)

a. lu tə̀ yau?
   man one cl 'one human being'

b. shaŋ tə̀ diŋ
   rice one bushel 'one bushel of rice'

(data from Hla Pe 1965)

We sum up this subsection with the following observations:

a. Container nouns and classifiers behave similarly in classifier languages.

b. Asamiya is unique in showing a similarity in their alternation of environments which is related to definiteness marking.

To show the distinction of Asamiya from Bangla regarding container nouns we can draw a table similar to (79) above:

(90)

	Bangla	**Asamiya**
Q(Num)-ConN-N (Indefinite)	Present	Present
N-Q(Num)-ConN (Definite)	Absent	Present

If QP contains both numeral and container noun, the distinction between Bangla and Asamiya will be understood clearly through the same table in (80) above, repeated here in (91) below:

(91)

	Bangla	**Asamiya**
QP-NP (Indefinite)	Present	Present
NP-QP (Definite)	Absent	Present

5.4.1.3. Part nouns in Asamiya and Bangla:

Asamiya part nouns follow the other brethren in showing the occurrence in the same environments in indefinite and definite expressions. Consider the following sentences:

(92)

a. ruti-tukura khai diNi xukai goisil
roti-piece eating throat drying go-pt.
'My throat was dry having eaten the piece of roti.'

b. pani-glas khai bhal palow
water-glas drinking good felt

'I felt good having drunk the glass of water'.

The light noun in (92a) and the one in (92b) show the same behaviour though their subclass is different. The combination of ruti and tukura generating the meaning of 'the piece of bread'(definite) is totally unique to Asamiya. Its corresponding indefinite expression is the following:

(93) E tukura ruti
one piece bread 'a piece of bread'

This expression is the basic structure which is available in the other language, Bangla:

(94) a. Ek Tukro ruTi
one piece roti 'a piece of bread' Bangla

But Bangla does not permit an Asamiya type of combination,

b. *ruTi-Tukro
roti-piece

There is no problem if the matter is approached semantically; it is ruti "roti" which is eaten and not tukura "piece", just as it is pani "water" which is drunk and not glas "glass".

Syntactically, the distinction in the environment of Part Nouns in indefinite and definite constructions is maintained by Bangla and Asamiya, e.g.

(95)

A. Asamiya		B. Bangla
Indefinites:		Indefinites:
a. E tukura ruti		a. Ek Tukro ruTi
one piece roti	'a piece of roti'	one piece roti
b. tini tukura ruti		b. tin Tukro ruTi
three piece roti	'three pieces of roti'	three piece roti

c. kei tukura ruti		c. kO Tukro ruTi	
few piece roti	'few pieces of roti'	few piece roti	
Definites:		Definites:	
a. ruti-tukura		a. * ruTi-Tukro	
roti-piece	'the piece of roti'	roti-piece	
b. ruti tini tukura		b. *ruTi tin Tukro	
roti three piece	'the three pieces of roti'	roti three piece	
c. ruti kei tukura		c.* ruTi kO Tukro	
roti few piece	'the few pieces of roti'	roti few piece	

We sum up this subsection also with two tables similar to (90) and (91):

(96)

a.

	Bangla	**Asamiya**
Q(Num)-PartN-N (Indefinite)	Present	Present
N-Q(Num)-PartN (Definite)	Absent	Present

b.

	Bangla	**Asamiya**
QP-NP (Indefinite)	Present	Present
NP-QP (Definite)	Absent	Present

5.4.1.4. Measure Nouns:

So far as the measure nouns of Asamiya are concerned, we observe that the standardised measure words which have entered the language as loan words from English do not usually show the similar behaviour as the other light nouns do, for example in the

set shown below, (97a) and (97b) are permitted (just as they are in a non-classifier language), but not (97c) and (97d):

(97)

a. Ek keji saul
   one kg rice 'one kg of rice'

b. dui litar tel
   two litre oil 'two litres of oil'

c. *saul-keji

d. *tel dui litar

We may conclude from this that measure words (which are loan words from a non-classifier language) have not acquired a particular feature of indigenous light nouns. This feature is a strong formal feature which works as an attractor to raise an NP to the SPEC,QP position. Because of this, it cannot participate in the definiteness marking process through a change in phrase order.

But indigenous measure words, especially the count units can trigger the change in phrase order, e.g.:

(98)

a. E jor sOku
   one pair eye 'a pair of eyes'

b. sOku-jor
   eye-pair 'the pair of eyes'

We have learnt from Greenberg 1972 that it is a typological pattern that classifiers, container nouns and measure/count nouns behave similarly in a classifier using language; an example from Thai is the following:

(99)

a. b`uri sɔ̀ŋ sɔ̀.ŋ
   cigarette two packet 'two packets of cigarette'

b. b`uri sɔ̃ŋ lɔ̃

cigarette two dozen 'two dozens of cigarette'

c. b`uri sɔ̃ŋ muan

cigarette two cl 'two cigarettes' --Greenberg 1972

We treat some Asamiya count units as Measure Nouns. They behave like classifiers in occurring in pairs where phrase order inversion is involved, e.g.,

(100)

a. borua-y iar pOra dui hezar bhot besi pale

Baruah-nom here from two thousand vote more got

'Mr baruah got two thousand votes more from here.'

b. xei bhot dui hezar-Or karOnei teoM jikile

that vote two thousand-gen reason he won

'Because of those two thousand votes he won (the election).

In the above example, the count word hezar "thousand" clearly behaves like a classifier as well as like other semi-lexical nouns seen in sections 5.4.2., 5.4.3., and 5.4.4. There is no equivalent for the underlined expression in (99b) in Bangla, e.g.,

(101)

a. du hajar bhoT

two thousand vote ' two thousand votes'

b. *bhoT du hajar

vote two thousand

In other words, Bangla count words behave differently from Asamiya count words. We do not intend to propose a separate subclass for count words. We treat them as measure words, since it does not affect our analysis.

To conclude the discussion in the subsection 5.4.1., we have seen that four out of six subtypes of semi-lexical nouns behave totally like classifiers in Asamiya and only

partly like classifiers in Bangla. Two subtypes, namely Quantifier Nouns and Kind Nouns in Asamiya and Bangla are not discussed because the first type is not available in Asamiya and the other type is similar in both the languages. Kind nouns occur only in indefinite expressions in Asamiya and Bangla. Barring these two subtypes, the general observation about the semi-lexical nouns is that Asamiya semi-lexical nouns contain a strong formal feature just like Asamiya classifiers. This feature is responsible for the change in phrase order in definite constructions. Bangla semi-lexical nouns do not have this formal feature. To bring classifiers and semi-lexical nouns in both the languages under one unified scheme of comparison we present the following table:

(102)

Asamiya light noun	Q-cl-N in indefinite; N-Q-cl in definite
Asamiya classifier	Same
Bangla classifier	Same (Q, if a num, needs to be small)
Bangla light noun	Q-cl-N in indefinite; no reverse order available for definite.

We propose to use the feature specification of Riemsdijk 1998 in the following manner to formalise the above difference:

(103)

Asamiya light noun	+F, -G
Asamiya classifier	+F, -G
Bangla classifier	+F, +G
Bangla light noun	-F, -G

To elaborate, +F stands for an item's ability to have the optional formal feature [Specificity], responsible for reversing the phrase order. Bangla light nouns are assigned -F since none of them have this ability. The feature -G is proposed to stand for a bundle of lexical sub-features which encode lexical information and selectional choices into a lexical item. Bangla classifiers are rather empty compared to their Asamiya counterparts.

Asamiya classifiers are rich in terms of their lexical content. Hence the Bangla classifier is assigned a +G.

To conclude, we propose to distinguish Asamiya from Bangla on the basis of our findings. We have seen that Asamiya can be distinguished from Bangla regarding the fact that in Asamiya both classifiers and semi-lexical nouns bear formal features whereas in Bangla only the classifiers do so. Our theoretically motivated presentation of data related to semi-lexical nouns and classifiers in both the languages have shown how, despite many similarities, a particular behaviour of Asamiya semi-lexical nouns makes the language different from its sister language, Bangla. On the basis of the features furnished in (103) above, we propose the following:

(104) The difference in the value of one of the features of semi-lexical nouns and classifiers contributes to a language boundary.

5.5. The combination of Demonstrative and Semi-lexical nouns in Bangla and Asamiya:

In this section, we shall show how the F-features distinction furnished in the earlier section can be related to the demonstrative-classifier combination as well as the demonstrative- semi-lexical noun combination in the two languages. This would ultimately connect our findings presented in (1) and (104). We suggest that the feature –G looks after the matter of feature matching between the noun and the classifier/semi-lexical noun. Asamiya semilexical nouns have this feature common with the classifiers. This explains why the combinations of demonstrative and semilexical nouns are frequent in the language. The feature –G allows the Asamiya semi-lexical nouns, just like the classifiers, to form a capsule with the demonstrative. The following Asamiya data shows that the five out of six subtypes of semilexical nouns which have shows similarity with the classifiers in other respects can be combined with the demonstrative :

(105)

a. dem-MN-N :	ei	mail	raSta	
	dem	mile	road	'this distance of one mile'

b. dem-PartN-N:	ei	tukura	ruti	
	dem	piece	roti	'this piece of roti'
c. dem-ConN-N:	ei	jar	pani	
	dem	jar	water	'the water of this jar'
d. dem-ConN-N:	xi	jak	satrO	
	dem	group	student	'that group of students'
e. dem-KindN-N:	i	bidhO	kitap	
	dem	type	book	'this type of books'.

In contrast to this, Bangla semilexcial nouns which have +G, do not generally participate in a combination with the demostrative. See the following data :

(106)

a.* ei raS kobita : dem-QN-N
dem number pom

b. *ei miTar kapoR : dem-MN-N
dem metre cloth

c. *oi Tukro ruTi : dem-PartN-N
dem piece roti

d. *ei kouTo cal : dem-ContN-N
dem bowl rice

e. *oi gocha phul : dem-ColN-N
dem bunch flower

f. oi rOkom alu : dem-KindN-N
'that type of potato'

Participation of the Kind Noun in this combination has to treated as an exception as in Bangla the KindN shows no similarity with the classifiers regarding the ability to induce NP-movement. This is evident from the non-availability of post-nominal occurrence of KindN; See (107) below:

(107)

a. * boi rOkom	b. *boi du rOkom	c. *boi kO rOkom
book type	book two type	book few type

This implies that the KindN in Bangla maintains its distinction from the Classifier which has the feature (+F) : so the exceptional pattern in (107) does not contradict the argument build up in the chapter. The item oi rOkom in (106 f) is not a combination of a demonstrative and a light noun. It is in fact a word which belongs to a series: eirOrom, oirOkom, konorokom, jerOkom, SerOkom etc[vii]. This series diachronically replaces Emon, tEmon, Omon, jEmon, kEmon in many forms of use.

5.6. Concluding remarks:

As it is discussed in Section 5.2., the scope of the proposed Excapsulation Parameter is within two Class languages which are distinct from the Gender languages. The fundamental difference between these two groups of languages is that Gender in a Gender language like Hindi shows agreement between DP and AGR-P, but Class in a Class language does not do so. The reason could be attributed to the contrast in morphological feasibility in showing the agreement. Gender in the DP of Hindi has only two values, Masculine and Feminine which can be shown as (+/-Masculine). The distinction of feature here is unambiguously one-dimensional. The AGR-morphology can afford to take care of this distinction. Moreover, in the lexicon, the grouping of nouns show sharp polarity along the line of distinction shown by Gender. A Hindi noun enters the syntactic computation with the feature (+ or -) Gender. But the nouns in the lexicon of Class languages like Bangla and Asamiya cannot be polarised between two complementary features nor can they be grouped into three (unlike the feature Person). Class distinctions are clearly not one-dimensional; the dimensions are not well defined either. As a result, these languages have not developed a transparent general agreement phenomenon related to class which could be compared to Gender-related agreement in a Gender language. Class distinction is diverse and less systematic. Unlike gender, it cannot

be brought under a polarised value-system. Hence it is difficult for the grammar of a class language to develop a befitting morphology to show agreement. Similar deficiency would be found, we guess, to compare the dimensions of Number and Aggregation. To add to the categorisation of the Indic languages, Hindi, Bangla and Asamiya, it can be said that the first one has strong agreement phenomenon, the second one has weak agreement phenomenon and the third one has deficit agreement phenomenon. This descending order may be in conformity with the order that Hindi has no classifier system, Bangla has a poor classifier system and Asamiya has a rich classifier system. If Class and Gender are two different manifestations of the same UG primitive, then, in Hindi its grammaticalisation is complete having spread up to the clause structure, in Bangla its grammaticalisation is stunted at the level of DP and in Asamiya it is operative in the syntax of DP within a semi-lexical frame.

We would conclude with a brief comparison of honorificity marking in Bangla and Asamiya. Bangla has systematic morphology of honorificity in second and third person pronominals which have their correspondent component in the AGR-P. Bangla AGR-P checks the honorificity features of the DP. But, Asamiya does not show honorificity agreement in the clause structure though its DPs do distinguish between at least three levels of honorificity (which we call +/- formal and +/- despective). Bangla honorificity is an independent feature and so it is morphologically feasible for the AGR to monitor a consistent checking mechanism. In Asamiya, on the other hand, it is the classifier feature system which looks after the honorificity factors. Besides, it is inseparably combined with lexical features of sex and age. These features which are shared by the classifier and the classified noun are Interpretable features having no role in the computation till spell-out. Its relation to Excapsulation Parameter is that since the Parameter distinguishes between semi-lexical and formalised classifiers, the feature (honorific/formality) incorporated in feature matrix of semilexical classifiers is an Interpretable feature and does not show up as a participant in the agreement phenomenon.

Endnotes:

[i] The expression in (3b) is alright if it is understood as a zero-copula clause, meaning 'this (is)a book'.

[ii] Some speakers may find it alright, but we think that is due to interference from ami e-i cai "I this-emphasiser want" 'I want this itself'. Here ei is construed as e-i "dem+emphasiser". We may give another couple of examples with a different verb to make our point clear:

a. * ami ei paThabo
I dem send-fut

b. * ami e paThabo
I dem send-fut

[iii] One can argue that the demonstrative-classifier combination of this type is similar in behaviour to English expressions like this much which works as a unit in this much wine .

iv Henk van Riemsdijk 's opinion on this data is that these are not elliptic but the missing N is, in a sense supplied by the lexical content of the classifier.

v. Henk van Riemsdijk pointed out that some N1s behave like classifiers in the nominals where N2 (the leical noun) is not present such as in the following examples:
a. ?Ik heb twee glazen gedronken (I have drunk two glasses.)
b. Geef mij maar twee plakken (Just give me two pieces.)
He suggested that an elliptic relation cannot be established for (a.) , though there is a pragmatic implicature that the liquid is something drinkable; similarly, (b) cannot be anaphoric though the impliation is that these are slices of something which can be sliced. The relative richness of the lexical semantics of these of these semi-lexical nouns is relevant to the question of whether they could be interpreted independently (of some N2) but not whether they can license an elliptic (empty) nominal head (N2).

vi M.M.Sarma showed me that container nouns such as bati, samus etc. can occur in all the environments of kOlOh here.

[vii] The existence of contractions such as such as erOm, jerOm, SerOm, kirOm, orOm etc. gives evidence for their word status. This was pointed out by P. Dasgupta.

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