Chapter 2

Compound Verb as a PREDICATE

2.0 Introduction

In this chapter I focus on the ***predicatehood*** of CV sequences in Indo-Aryan languages and argue that predicates can be expressed both synthetically (by one word expressions) and analytically (by multi-word expressions) in these languages. This implies that there is no one-to-one mapping between the meaning-form and physical form[1] of expressions. Multi-word expressions that are composed of more than one grammatical element (either morphemes or words), each of them contributing part of the information ordinarily associated with a head, are usually referred to as complex predicate constructions in modern day parlance. This chapter contends that even though the Indo-Aryan CVs consist of typically two verb forms the construction expresses one functional-semantic unit, i.e. a predicate.

The chapter is divided into the following sections. Section 1 examines the constituency status of CV sequences. On the one hand the CV constructions, like one verbal unit, provide a morphological base for various morphosyntactic operations. On the other hand, the constituent-members independently participate in various syntactic operations such as movement and scrambling. Section 2 discusses the morphological and syntactic approaches in analyzing the complex predicates. Section 3 presents the morphological and syntactic evidences in favor of CV sequences being interpreted as a predicate.

[1] Meaning-form presents functional-semantic information associated with a predicate. Physical form represents the surface expression.

2.1 The Status of CV Sequences as a Constituent

I discuss in this section some morphological evidences that confirm that CV sequences as one multi-word verbal unit (and not their independent subparts) determine the central properties of the phrase structure that they project, as the two Vs together constitute a morphological base for derivational and inflectional operations. However, the constituent verbs exhibit syntactic independence. This feature clearly violates the lexicalist concept of *morphological expression*, which holds to the strict requirement that each lexical representation be expressed by at most one single morphologically integrated word form. The following two subsections illustrate these characteristic features of CV sequences in connection with Bangla and other Indo-Aryan languages.

2.1.1 CV sequence as a morphological base

This section demonstrates that the entire CV (and not any part thereof) provides the morphological base for various morphosyntactic operations.

2.1.1.1 Conjugation

In Bangla the suffixes representing tense, aspect and person agreement appear on the verbal form as shown in (1):

1a. *ami* ***ghumo-l-am***
I sleep- pt-1st
'I slept'

b. *mee-ṭa* ***ghumo-l-o***
girl-cl sleep-pt-3rd
'The girl slept'

The suffixes *–am* and *–o* agree with the subject in person within a sentence. The CV sequences behave as a single morphological unit in that the second verbal constituent always bears the inflection for the whole construction. In Bangla the V1 constituent usually occurs in conjunctive participial form and rarely in infinitive form (see chapter 1 for illustration):

2a. *ami* ***ghumi-e poṛ-l-am***
I sleep-cp fall-pt-1st
'I fell asleep'

b. *mee-ṭa* ***ghumi-e poṛ-l-o***
girl-cl sleep-cp fall-pt-3rd
'The girl fell asleep'

2.1.1.2 Nominalization

Bangla verbs are nominalized by adding the suffix *–a* or *–no* to the bare form of the verb. This is exemplified in (3b) and (4b):

3a. *jhõk-er matha-e̱ ami kɔtha-ṭa* ***bol-echi***
impulse-gen head-loc I word-cl say-1 pr pft
'I said it ("the word") on an impulse'

b. *jhõk-er matha-e̱ kɔtha-ṭa* ***bɔl-a*** *šɔhoj ho-lo*
impulse-gen head-loc word-cl say-VN easy become-3 pt
'In was easy to say it ("the word") on an impulse'

4a. *ritu-ke boi̱-ṭa* ***paṭhi-echi***
Ritu-obj book-cl send-1 pr pft
'(I) have sent the book to Ritu'

b. *ritu-ke boi̯-ṭa* ***paṭha-no*** *ṭhik hɔ-e̯ ni*
Ritu-obj book-cl send-VN correct be-3 pr neg
'Sending Ritu the book hadn't been right'

The nominalized verbal forms *bɔl-a* 'say-VN' in (3b) and *paṭha-no* 'send-VN' in (4b) function as a deverbal noun in these two sentences. When a CV sequence undergoes nominalization the verbal noun (VN) suffix appears on the V2 constituent as shown in (5b) and (6b):

5a. *jhõk-er matha-e̯ ami kɔtha-ṭa* ***bol-e phel-echi***
impulse-gen head-loc I word-cl say-cp drop-1 pr pft
'I blurted (it) out on an impulse'

b. *jhõker matha-e̯ ɔnek kɔtha-i* ***bol-e phæl-a*** *šɔhoj ho-lo*
impulse-gen head-loc many word-emp say-cp drop-VN easy be-3 pt
'It became easy to blurt out things on an impulse'

6a. *ritu-ke boi̯-ṭa* ***paṭhi-e di-echi***
Ritu-obj book-cl send-cp give-1 pr pft
'(I) have sent the book to Ritu'

b. *ma-ke na bol-e ritu-ke boi̯-ṭa* ***paṭhi-e deo̯-a*** *ṭhik hɔ-e̯ ni*
mother-obj not say-cp Ritu-obj book-cl send-cp give-VN correct be-3 pr neg
'It hadn't been right to send the book to Ritu without informing mother'

The CV sequences *bole phæla* "say-cp drop" and *paṭhie deo̯a* 'send' as a whole function like a deverbal noun in (5b) and (6b).

2.1.1.3 Passivization

Passive constructions are represented by multi-word expressions in Bangla. When a verb undergoes passivization an auxiliary verb *hɔo̯a* 'be' or *jao̯a* 'go' or occasionally the verb *pɔṛa* 'fall' follows the nominal form of the main verb. For example, the sentence in (7b) contains the passive construction:

7a. *puliš cor-ṭa-ke* ***dhor-lo***
police thief-cl-obj catch-3 pt
'The police caught the thief'

b. *ɔnek ceṣṭa-r pɔr cor-ṭa-ke* ***dhɔr-a gæ-lo***
great effort-gen after thief-cl-obj catch-VN go-3 pt
'The thief could be caught with great effort'

When CVs are passivized the whole construction is treated as a unit. The auxiliary verb follows the nominalized form of the CV sequence as shown in (8b):

8a. *puliš cor-ṭa-ke* ***dhor-e phel-lo***
police thief-cl-obj catch-cp drop-3 pt
'The police caught the thief'

b. *cor-ṭa-ke ɔnek ceṣṭa-r pɔr* ***dhor-e phæl-a gæ-lo***
thief-cl-obj great effort-loc after catch-cp drop-VN go-3 pt
'The thief could be caught with great effort'

2.1.1.4 Reduplication

Reduplication is a morphological process that doubles a string or part of a string and results in a new derived string. Ackerman et al. (1998, p. 267) illustrate the use of reduplication in the formation of the passive construction in Hausa where part of a synthetic verb-form

becomes doubled. In Bangla, the whole verb root is sometimes doubled. The new derived word indicates repetition of action. For instance, the verbal base *bɔk-* is reduplicated and appears within the complex predicate *bɔkbɔk kɔra* 'chatter' in (9):

9. *mee-ṭa khali* ***bɔkbɔk*** *kɔr-e*
girl-cl always chatter do-3 pr
'The girl always chatters'

When the verbal predicate is represented by a CV sequence, the repetition of an event is indicated by doubling the first constituent of the verbal sequence (i.e. a subpart of CV) as illustrated in (10) and (11):

10. *aste aste tader du-jon-er šorir theke-i maŋšo*
slowly slowly their two-cl-gen body from-emp flesh
khoš-e khoš-e je-te *lag-lo*
fall off-cp fall off -cp go-inf feel-3 pt
'The flesh began to fall off from both their bodies gradually'

11. *še kɔtha mon-e e-le ækhono amar pile* ***comk-e comk-e oṭh-e***
that word mind-loc come-cond still I-gen spleen startle-cp startle-cp rise-3 pr
'My flesh creeps even now when I recall the incident'

2.1.2 CV sequences composed of syntactically independent words

CV sequences call for a discussion as to whether each participant verb forms a separate constituent. In the next two subsections we observe that:

1. The two Vs are not very strongly cohesive and other elements can intervene between them.
2. Their response to common constituency tests is varied.

2.1.2.1 Syntactic independence of Vs in a CV sequence

This section shows that the two constituents of a CV sequence do not constitute a close-knit structure. The participant verbs can interchange their positions and either of the two verbs can independently move around within the sentence in which they occur. Furthermore, words of various categories can intervene between the two verbs.

2.1.2.1.1 Two Vs may interchange their position

Like that in German complex predicates, the V1 and the V2 can interchange their respective positions within a CV sequence in Bangla. Bouma (1994) calls this phenomenon "auxiliary flip". For example, the sentence in (12a) indicates the default order of constituents within CV sequence:

12a. *pakhi-ṭa* ***uṛ-e gæ-lo****, dhɔr-a gæ-lo na*
bird-cl fly-cp go-3 pt catch-VN go-3 pt neg
'The bird flew away, it could not be caught'

The conjunctive participial form is followed by the verb that bears agreement morphology. The two verbs can interchange their position as shown in (12b) with the meaning of the sentence remaining unchanged.

12b. *pakhi-ṭa* ***gæ-lo uṛ-e****, dhɔr-a gæ-lo na*
bird-cl go-3 pt fly-cp catch-VN go-3 pt neg
'The bird flew away, it could not be caught'

This phenomenon is also seen in Marathi as illustrated in (13) (Pandharipande 1993):

Marathi:

13. *tya:ne ka:m* ***ʈa:klə*** ***kərʊ:n***
he-agent work threw(V2) doing (V1)
'He did the work (and got rid of it)'

2.1.2.1.2 Discontinuous occurrence of Vs

The two Vs do not always occur in a sequence. In Bangla, the verb generally occurs at the final position within a clause. The following sentences show that a V2 may move to the beginning of a clause, leaving the V1 in its original clause final position. For example, the CV *ẽke nebo* '(I) will draw (self-beneficiary)' occurs at the sentence final position in (14a):

14a. *prodoršoni-r deri ache, er moddhe aro kɔkhana chobi* ***ẽk-e ne-bo***
exhibition-gen late be-3 pr this-gen within more a few picture draw-cp take-1ft
'There's still some time till the exhibition, meantime I will finish drawing a few more pictures'

In (14b), the V2 *nebo* "take-1 ft" moves to the beginning of the clause and the V1 *ẽke* "draw-cp" remains at the clause final position:

14b. *prodoršonir deri ache,* ***ne-bo*** *er moddhe aro kɔkhana chobi* ***ẽke***
exhibition-gen late be-3 pr take-1 ft this-gen within more a few picture draw-cp
'There's still some time till the exhibition, meantime I will finish drawing a few more pictures'

Similarly, the second constituent of the CV sequences *bole phæla* "say-cp drop" in (15a) and *keʈe deo̯a* "cut-cp give" in (16a) moves forward as shown in (15b) and (16b):

15a. *jɔkhon ækbar kɔtha-ṭa* ***bol-e*** ***phel-echi****,* *tɔkhon to ar*
when once word-cl say-cp drop-1 pr pft then prt any more
phera-te par-bo na
take back-inf be able-1ft neg
'Since I have already said it, I cannot take it back'

b. ***phel-echi*** *jɔkhon ækbar kɔtha-ṭa* ***bol-e****, tɔkhon to ar*
drop-1 pr pft when once word-cl say-cp then prt any more
phera-te par-bo na
take back-inf be able-1 ft neg
'Since I have already said it, I cannot take it back'

16a. *eị̊ khur die tomar kan du-ṭo* ***keṭ-e de-bo***
this razor with you-gen ear two-cl cut-cp give-1 ft
'I will cut off both your ears with this razor'

b. ***de-bo*** *eị̊ khur die tomar kan du-ṭo* ***keṭ-e***
give-1 ft this razor with you-gen ear two-cl cut-cp
'I will cut off both your ears with this razor'

The following sentences also illustrate the discontinuous occurrence of the verb constituents of CV sequence *bole phelechi* "say-cp drop-1 pr pft":

17a. *kɔtha-ṭa* ***bol-e*** *jɔkhon ækbar* ***phel-echi****,*
word-cl say-cp when once drop-1 pr pft
tɔkhon to ar phera-te par-bo na
then prt any more take back-inf be able-1 ft neg
'Since I have already said it, I cannot take it back'

b. ***bol-e*** *jɔkhon ækbar* ***phel-echi*** *kɔtha-ṭa,*
say-cp when once drop-1 pr pft word-cl
tɔkhon to ar phera-te par-bo na
then prt any more take back-inf be able-1 ft neg
'Since I have already said it, I cannot take it back'

Ackerman et al. (1998, p. 5) put forth identical behavior of verb–particle construct in Hungarian, Estonian and German. Here is a German example containing the predicate *abrufen* 'call up':

18a. *weil wir die Informationen jetzt* ***ab-rufen*** *können*
because we the information now up-call can
'because we can call up the information now'

b. *Wir* ***rufen*** *die Informationen jetzt* ***ab***
we call the information now up
'We call up the information now'

In sentence (18b), the separable pre-verb *ab* appears at the end of the finite matrix clause. Thus the verbal stem and the pre-verb become discontinuous in the syntax.

2.1.2.1.3 Insertion of words

Certain words can intervene between the two verbs of a CV sequence thus making the verbal sequence discontinuous:

19. ***eš-e*** *jɔkhon* ***poṛ-echo****, thek-e ja-o̲*
come-cp when fall-2 pr pft stay-cp go-2pr-imp
'Now that you have come, stay back'

20. *gach theke ækhon-i* ***peṛ-e*** *na* ***ni-le*** *am-gulo poc-e ja-be*
tree from now-emp pluck-cp neg take-cond mango-cl rot-cp go-3 ft
'The mangoes will get rotten unless they are plucked from the tree immediately'

21. *kɔlej-e tomar cakri-ṭa* ***ho-e*** *hɔ̰eto* ***ja-be****, tɔbe tomar*
college-loc you-gen job-cl be-cp perhaps go-3 ft, but you-gen
okhane bhalo lag-be ki ?
there good feel-3ft whether
'You will perhaps get the job in the college, but will you like it there?'

A fixed set of words can occur between the two constituents of a CV sequence. Pandharipande (1993) illustrates that in Marathi an emphatic particle can intervene between the V1 and the V2 as in the following sentence:

Marathi:

22. *to he* ***bolu:n*** *tə̃r* ***gela:***
he this saying indeed went
'Indeed, he said this (inadvertently)'

Independent words in Bangla can freely alter their surface position within a sentence. The aforementioned data shows that constituents of CV sequences are no exception. In the following section I discuss some tests, which examine the constituency status of the CV sequences.

2.1.2.2 Constituency tests

I discuss here three tests. The first test is the common *constituent response test*, which is usually applied to see whether a given phrase behaves as one constituent or not. The *interruptability test* presupposes that no word can intervene within a string of words that

form one constituent. Finally the *co-ordination test* examines whether a given set of words can also be conjoined or coordinated. A coordinated phrase contains more than one constituent.

2.1.2.2.1 Constituent response test

Let us consider the following sentence that contains the CV sequence *poṛe phæla* "read-cp drop".

23. *ami boi̯-ṭa* ***poṛ-e*** ***phel-lam***
I book-cl read-cp drop-1 pt
'I completed reading the book'

The test is the following. In order to get a meaningful response about the action denoted by the verb within the sentence in (23), we need to frame the question in the following manner: *ami ki korlam* 'what did I do?' and not **ami ki phellam* 'what did I drop?' or **ami ki poṛe korlam* 'What did I read+do?' This shows that the sequence of verbs as a whole denotes a single event.

2.1.2.2.2 Interruptability test

Butt (1995) shows in Hindi-Urdu and Pandharipande (1993) in Marathi that no adverb can intervene between items in a CV sequence:

Hindi:

24a. *ɔ̃nju-ne* *xɔ̃t* *kɔ̃l* ***likh lia:***
Anju-erg letter yesterday write take-pt
'Anju wrote the letter yesterday'

b. **ɔnju-ne xɔt **likh** kɔl **lia:***

Anju-erg letter write yesterday take-pt

'Anju wrote the letter yesterday'

Marathi:

25. **to he **bolu:n** ka:l **gela:***

he this saying yesterday went

'Yesterday, he said this (inadvertently)'

In Bangla also we notice that adverbs generally do not intervene between the two verbs of a CV. For example, the manner of adverb *taṛataṛi* 'quickly' occurs between the verbs of the CV sequence *poṛe phellam* "read-cp drop-1pt" in (26a) and the sentence is ill-formed:

26a. **ami boi̯-ṭa **poṛ-e** taratari **phel-lam***

I book-cl read-cp quickly drop-1 pt

'I completed reading the book quickly'

The adverb usually precedes the verb as shown in (26b):

26b. *ami taratari boi̯-ṭa **poṛ-e** **phel-lam***

I quickly book-cl read-cp drop-1 pt

'I completed reading the book quickly'

Nevertheless the following well-formed sentence shows that the intervention of an adverb within the CV sequences is not completely prohibited in Bangla:

27. ***kor-e** thikmoto-i **de-be**, tɔbe kɔto-ṭa kaj-e lag-be jan-i na*

do-cp properly-emp give-3 ft but how much-cl use-loc feel-3 ft know-1 pr neg

'He will do the work alright, but (I) doubt how useful (it) will be for you'

The word *ṭhikmoto* ‘properly’ is an adverb. It intervenes between the two verbs of the CV sequence *kore deo̲a* “do-cp give”. Even though the adverb precedes the V2 *deo̲a* ‘give’ in (27), it modifies semantically the meaning of the whole sequence and not that of the verb *deo̲a* ‘give’ alone. I will discuss this issue in more detail in section 2.3.5. The aforementioned data shows that member-verbs of Hindi-Urdu and Marathi CV sequences are more tightly knitted than those of Bangla in syntax.

2.1.2.2.3 Coordination test

Generally a CV can coordinate with another CV, but not with part of a CV. Therefore the sentence in (28a) is well-formed while that in (28b) is not:

28a. *ami bokul-ke* ***bok-e*** ***di-lam*** *ar šonju-ke* ***mer-e*** ***di-lam***
I Bokul-obj scold-cp give-1 pt and Sonju-obj beat-cp give-1pt
‘I scolded Bokul and beat Sonju’

b. **ami bokul-ke* ***bok-e*** *ar šonju-ke* ***mer-e*** ***di-lam***
I Bokul-obj scold-cp and Sonju-obj beat-cp give-1pt
‘I scolded Bokul and beat Sonju’

However following sentences show that coordination of part of CV is also possible if the two V1s that are coordinated are semantically very close and their arguments are the same:

29a. *biddhoŋši agun ghɔrdor gachpala* ***jali-e*** ***puṛi-e*** ***di-lo***
devastating fire houses trees set on fire-cp burn-cp give-3 pt
‘The devastating fire burnt out houses and trees’

b. *ki ranna kor-ben ta* ***jen-e*** *ba* ***bheb-e ni-e***
what cook do-3 hon ft that know-cp or think-cp take-cp
šeį̇moto šamogri jogaṛ kor-e rãdh-te boš-ben
accordingly ingredients collect do-cp cook-inf sit-3 hon ft
'(First) think and decide what you will cook; accordingly collect the ingredients and start cooking'

ghɔrdor 'houses' and *gachpala* 'trees' are the arguments of both *jalano* 'set on fire' and *poṛano* 'burn' in sentence (29a). In this sentence the two arguments together present a sense of totality. The argument of *jana* 'know' and *bhaba* 'think' is the subordinate clause in (29b).

Data enumerated in this subsection strongly supports the claim that the two Vs in a CV cluster do not form a close-knit constituent structure; on the contrary they behave as independent constituent on the surface. On the other hand, these verbal sequences as one unit provide the base for various morphosyntactic processes. This feature confirms the status of the CV sequences as one mono-clausal unit. This apparent anomaly can best be explained if we shift our focus from their syntactic expression or representation to the *content-theoretic notion of predicate*. CV sequences behave as a single semantic unit although their constituent members enjoy considerable freedom of movement.

In the next section I will examine two current approaches that are being pursued for analyzing the multi-word expressions, which are popularly referred to as complex predicate constructions.

2.2 Complex Predicate

Constructions similar to CV sequences of Indo-Aryan languages are commonly described as *complex predicates* (CP) in the literature. The preverb-V constructs found in Hungarian, German and Russian, restructuring verbs in Italian, verb-auxiliary units in French and other Romance languages are also included in the repertoire of CP. Sells has defined CPs as multi-headed constructions; they are composed of more than one grammatical element (either

morphemes or words), each of which contributes part of the information ordinarily associated with a head. Manning and others emphasize the mono-clausal nature of complex predicates and unequivocally propose that the composition of the complex predicate is accomplished at the syntactic level.

Butt (1995) proposes the characteristics in (A) for the cross-linguistic identification of complex predicates.

(A) *Defining Characteristics of Complex Predicates:*

- The argument structure is complex (two or more semantic heads contribute to it).
- The grammatical functional structure is that of a simple predicate (there is only a single subject and no embedding).
- Complex predicates may be formed either morphologically (lexically) or syntactically.

2.2.1 Analysis of complex predicates

There have been two competing accounts of complex predicates: one is morphological and the other, syntactic. Traditionally, within the generative linguistic frameworks, analytic expressions are not treated in the morphology because they involve syntactically independent elements. This is the syntactic approach. The *argument composition mechanism* proposed by Hinrichs and Nakazawa (1990) in the lexicalist HPSG framework adopts the syntactic approach. According to this mechanism a complex predicate arises when the argument structure list of a functional head (here V2) includes a predicative word (here V1) and its arguments. Many scholars have implemented this mechanism to describe the composition of complex predicates in various languages such as in the German and Dutch verb cluster of main verb and auxiliary or modal (Bouma et al. 1998), the Italian Restructuring verb, the French complex predicate (Abeille et al. 1998), the Korean verb-auxiliary cluster (Chung 1998). This mechanism extends the privilege of creating new argument structures from the

lexicon to the syntax in clear violation of lexicalism. The lexicalist approach, based on the Strong lexicalist hypothesis, requires the selectional properties of lexical items to be completely determined in the lexicon. All changes in the meaning of a predicate or its selectional properties are achieved in the lexicon and are independent of the syntactic context into which the lexical entry is inserted.

In essence, the syntactic approach limits the explanatory power of morphology to synthetic exponence alone. As Brassil (2002) has observed in his article on Italian perfective constructions, this view has the following consequences:

- There is a one-to-one mapping between form and content; therefore form does not exist independent of content and vice versa.
- The co-occurrence of morphemes in synthetic expressions is governed by the morphology. The co-occurrence of forms in periphrastic expressions is governed by the syntax.
- That the morphology fails to produce synthetic exponence precisely where the syntax provides periphrastic ones appears to be coincidental.

(Brassil 2002, p. 6)

Multi-word representations of complex predicates lead scholars to look upon these constructions as syntactic i.e. made up of two words and divert their attention from the fact that these constructions primarily represent a predicate – a grammatical and functional unit.

The alternative approach is morphological. The realizational theories of morphology (Anderson 1992, Aronoff 1994, Beard 1995, Stump 2001) have treated analytic expressions in the morphology and not in the syntax, even though the formal expressions are composed of multiple syntactic elements. This approach keeps the form and the content, i.e., morphosyntactic function distinct from each other.

Ackerman and Webelhuth (1998) adopt this morphological approach and develop a lexicalist proposal in terms of the construct *predicate* in order to separate information concerning function assignments from the formal expression of the entities that convey this information. They observe that predicates are preferably expressed by single categorical words but can also be expressed by combinations of such words. According to them, from a content theoretic point of view a predicate contains functional-semantic information concerning its meaning, its semantic arguments and their grammatical function status, as well as morphosyntactic content providing values for such properties as tense, aspect, polarity, agreement etc. In other words, it is the content-theoretic head of a clause. They schematize the content side of a predicate in the following manner:

Functional-semantic content:	basic meaning, semantic roles
Morphosyntactic content:	tense, aspect, negation, agreement, etc;
Expanded predicate content:	functional-semantic content + morphosyntactic content

They contrast the *content-theoretic aspect* of a predicate with its *form-theoretic aspect*, i.e., those aspects of the sign, which most closely relate to the structure of the physical signal representing the sign's content as defined above:

Predicate form:	categorical properties (e.g., part of speech and morphophonological properties)

In this thesis my contention is that Indo-Aryan CV sequences represent the *expanded predicate content* as defined above. In the next section I examine a number of syntactic phenomena with reference to Bangla, which can best be accounted for by appealing to the notion of predicate irrespective of whether the predicate is expressed by a single syntactic form or by multiple syntactically independent forms.

2.3 Evidences for CVs Representing a Predicate in Bangla

I adopt the view of Ackerman et al in assuming the following characteristics of the construct predicate: a predicate is the projector of certain core properties of clauses; i.e., valence, semantic roles for arguments as well as morphosyntactic content such as tense, mood, aspect etc.

2.3.1 Agreement

In Bangla the simple finite verb forms agree with the subject in person. For example, the subject in (30a) is the first person pronoun. The person marker added to the verb base *khe-* (< *khaọa*) 'eat' is the 1st person suffix *–am*. In (30b), on the other hand, the subject *cheleṭa* 'the boy' is a 3rd person nominal entity; therefore the verb is marked with the 3rd person suffix *–o*:

30a. *ami bhat* ***khe-lam***
I rice eat-1 pt
'I took rice'

b. *chele-ṭa bhat* ***khe-lo***
boy-cl rice eat-3 pt
'The boy took rice'

When a V1 participates in periphrastic compounding it is inflected for the conjunctive participial form and the marker for tense, aspect and person morphology is assigned to the V2 constituent. The point to be noted here is that even though the argument structure list of CVs is usually a copy of that of its V1 constituent, the subject argument agrees with the V2 in person because the V2 bears inflection. This is exemplified in (31):

31a. *ami bhat* ***khe-e ni-lam***

I rice eat-cp take-1 pt

'I took rice (self-beneficiary)'

b. *chele-ṭa bhat* ***khe-e ni-lo***

boy-cl rice take-cp take-3 pt

'The boy took rice (self-beneficiary)'

The V2 *neọa* 'take' bears the marker for person. The subject *ami* 'I' and *cheleṭa* 'the boy' in (31a) and (31b) agrees with the V2 in person although they are originally the V1's arguments. I discuss here how the agreement constraint can be effectively explained once the notion of predicate is taken into consideration. If we treat CV sequences as representative of one predicate, by virtue of the aforementioned characteristic of the predicate construct, CVs will have their own argument structure. The argument occupying the subject position will agree with the verbal sequence for person, the inflection being borne by the V2 constituent. It is a language specific affair that the morphosyntactic information is attested on the second verb (V2) of the CV cluster. Ackerman et al. have shown that Hungarian (as well as the Algonquian language Fox) has one kind of modal construction in which both agreement and tense are distributed among the verbs representing the analytic predicate. They observe that when a Hungarian verbal predicate is expressed synthetically both person and number marking of the subject as well as tense and a certain modality marking appear on the verb. This is exemplified in (32a) where the verb *csokol* 'kiss' carries both the 1sg subject agreement morphology and the past tense morphology:

32a. *csokol-t-am a nyuszit*

kiss-pt-1sg the bunny-acc

'I kissed the bunny'

In contrast, when modality is expressed by a syntactically independent modal verb and non-finite verbal form in certain modal constructions (as illustrated in (32b)), Ackerman et al.

report that the modal verb *kell* 'must' hosts the past tense marking, while the non-finite form of *csokol* 'kiss' bears a marker from the possessive paradigm, reflecting person/number properties of an (optionally present, dative marked) subject:

32b. *(Nekem) kell-ett csokoln-om a nyuszit*

I-obj must-pt kiss-1sg/poss the bunny-acc

'I had to kiss the bunny'

(Ackerman and Webelhuth 1998, p. 54)

The above illustrations make the following point clear: When the predicate is expressed by a single verb form as in (30) and (32a), the relevant markers are borne by that form. On the contrary, when the predicate is represented by syntactically independent words, the agreement might be borne by one of the constituents as is the case in Bangla (see (31)) or it might be distributed among the components used to express the predicate (as in (32b)). I will show in chapter 6 that Hindi-Urdu has one kind of analytic expression in which the gender information is distributed over the verbs that constitute the analytic expression.

2.3.2 Word order

Ackerman et al. have referred to Perlmutter (1979) who argues that word order in world languages can best be interpreted in terms of the "functional/relational construct predicate, rather than in terms of categoriality". The conventional term for describing word order, namely SOV, SVO etc., mixes up *function* and *category* notions. S(ubject) and O(bject) are functional terms whereas V(erb) denotes a category. Therefore, Perlmutter suggests that it would be appropriate to use the term P (for predicate) in place of V. Bangla is a verb final language. I refer to Bangla as an SOP (and not SOV) language. The significance of referring to the last item of the word order acronym as P instead of V becomes evident in the discussion below.

A verb, a noun and an adjective can occur at the sentence final position in Bangla. This is illustrated in (33):

33a. *ritu æk-ṭa boi̯* ***poṛ-chilo***
Ritu one book read-3 pt cont
'Ritu was reading a book'

b. *ritu khub* ***bhalo***
Ritu very good
'Ritu is very good'

c. *ribhu æk-jon* ***šikari***
Ribhu one-cl hunter
'Ribhu is a hunter'

When the sentences in (33)b and c are used to express the past time, they contain the past form of the verb 'be' as illustrated below:

34a. *ritu khub* ***bhalo ch-ilo***
Ritu very good be-3 pt
'Ritu was very good'

b. *ribhu æk-jon* ***šikari ch-ilo***
Ribhu one-cl hunter be-3 pt
'Ribhu was a hunter'

I describe the default word order system in Bangla in the following manner: Bangla is a predicate final language. In present tense the a sentence might have a verb or a bare noun or adjective representing the predicate, while in past tense the predicate will be represented by a verb or an analytic expression N + 'be' and Adj + 'be' as shown in (34). The predicate is also represented by a V+V sequence as illustrated in (35):

35. *ritu boi̯-ṭa* ***poṛ-e*** ***ni-lo***
Ritu book-cl read-cp take-3 pt
'Ritu completed reading the book (implying Ritu is self-beneficiary)

As illustrated in (33a), the object *boiṭa* 'the book' precedes the finite verb *poṛchilo* "read-3 pt cont". When a sentence contains a CV, the object precedes the whole verbal sequence as in (35) and not just the final verb form as illustrated in (36):

36. **ritu* ***poṛ-e*** *boi̯-ṭa* ***ni-lo***
Ritu read-cp book-cl take-3 pt
'Ritu completed reading the book (implying Ritu is self-beneficiary)

This will not be regarded as an exception to the basic word order system of the language if we adopt the notion of the construct predicate and posit the following constraint: An object precedes the predicate, be it synthetically or analytically expressed. When the predicate is a multi-word expression, as the case under consideration, the object precedes the whole construction and maintains the SOP order of the language.

2.3.3 Negation

Within a simple finite clause the negative particle *ni* 'not' or *na* 'not' always follows the verb:

37a. *ritu šaṛi* ***ken-e*** <u>*ni*</u>
Ritu saree buy-3 pr neg
'Ritu has not bought the saree'

37a'. **ritu šaṛi* <u>*ni*</u> ***ken-e***
Ritu saree not buy-3 pr

b. *ritu šaṛi-ṭa* ***kin-lo*** <u>*na*</u>
Ritu saree-cl buy-pt neg
'Ritu did not buy the saree'

b'. **ritu šaṛi-ṭa* <u>*na*</u> ***kin-lo***
Ritu saree-cl neg buy-3 pt

The sentences in (37)a' and b' are ill-formed because the negative particle precedes the verb in these two cases. When the sentence contains a CV, the negative particle follows the entire CV construction as illustrated in (38a):

38a. *ritu šaṛi-ṭa* ***kin-e ni-lo*** *na*
Ritu saree-cl buy-cp take-3 pt neg
'Ritu did not buy the saree'

b. **ritu šaṛi-ṭa* ***kin-e*** *na* ***ni-lo***
Ritu saree-cl buy-cp neg take-3 pt
'Ritu did not buy the saree'

c. **ritu šaṛi-ṭa na* ***kin-e ni-lo***
Ritu saree-cl neg buy-cp take-3 pt
'Ritu did not buy the saree'

Thus the position of the negative particle in the environment of a simple verb and a CV sequence is identical. A negative particle always follows the morphophonological representation of a predicate, when the latter expresses finiteness.

Within a non-finite clause, on the other hand, the negative particle always precedes the non-finite verb form[2]. For example, the word *na* 'not' occurs before the non-finite verb form *kine* "buy-cp" in (39) and semantically negates the event denoted by the verb *kine* "buy-cp" that follows the particle.

[2] A non-finite verb form that bears conjunctive participle marker *–e* such as *kin-e* "buy-cp" in (39) denotes an event that precedes the matrix verb event. Since the second constituent of a CV bears inflection for the whole construction, the non-finite form of a CV such as *kine phele* "buy-cp drop-cp" in (40) is constructed by adding the suffix *–e* to the morphophonological form of the V2.

39. *ritu šaṛi-ṭa* <u>*na*</u> ***kin-e*** *baṛi col-e e-lo*
Ritu saree-cl neg buy-cp house move-cp come-3 pt
'Ritu came back home without buying the saree'

When CV sequences occur in non-finite form, the negative particle either precedes the whole construction as in (40a) or it occurs between the two constituents (see (40b)). Thus the position of *na* 'not' is not fixed in the environment of CV sequences. Nevertheless, the negative particle never follows the CV sequence as shown in (40c):

40a. *ritu šaṛi-ṭa* <u>*na*</u> ***kin-e phel-e*** *bhalo kor-eche*
Ritu saree-cl neg buy-cp drop-cp good do-3 pr pft
'Ritu did well in not having bought the saree'

b. *ritu šaṛi-ṭa* ***kin-e*** <u>*na*</u> ***phele*** *bhalo kor-eche*
Ritu saree-cl buy-cp neg drop-cp good do-3 pr pft
'Ritu did well in not having bought the saree'

c. **ritu šaṛi-ṭa* ***kine phel-e*** <u>*na*</u> *bhalo kor-eche*
Ritu saree-cl buy-cp drop-cp neg good do-3 pr pft
'Ritu did well in not having bought the saree'

Irrespective of whether the negative particle precedes the whole CV sequence or intervenes between the two verbs, it always negates the semantic content of the CV sequence. For example, even though the word *na* 'not' occurs before the verb *phæla* 'drop' in (40b), it does not take scope over the event denoted by the V2 *phæla* 'drop' alone. In fact the two constituents can never be negated independently. This is another evidence in favor of the claim that CVs represent one predicate.

2.3.4 Emphasizer

The emphatic particle can be affixed to both finite and non-finite verb forms in Bangla as shown in (41):

41a. *ritu šaṛi-ṭa* ***kin-be-i***
Ritu saree-cl buy-3 ft-emp
'Ritu will definitely buy the saree'

b. *ritu šaṛi-ṭa* ***kin-e-i*** *æk-ṭa ṭæksi-te* ***uṭh-e*** ***poṛ-lo***
Ritu saree-cl buy-cp-emp one-cl taxi-loc board-cp fall-3 pt
'Ritu took a taxi immediately after buying the saree'

With a CV sequence the emphatic particle can attach to either of the member verbs without any explicit semantic difference:

42a. *ritu šaṛi-ṭa* ***kin-e-i*** ***ne-be***
Ritu saree-cl buy-cp-emp take-3 ft
'Ritu will certainly buy the saree'

b. *ritu šaṛi-ṭa* ***kin-e*** ***ne-be-i***
Ritu saree-cl buy-cp take-3 ft-emp
'Ritu will certainly buy the saree'

The emphasizer *–i* is affixed to the conjunctive participial form (V1) in (42a) and to the V2 in (42b). However the constituents never carry simultaneous individual emphasis on both. Thus the sentence in (43) is ill-formed:

43. **ritu šaṛi-ṭa* ***kin-e-i*** ***ne-be-i***
Ritu saree-cl buy-cp-emp take-3 ft-emp
'Ritu will certainly buy the saree'

The data at hand can nicely be elucidated with the proposed notion of the functional construct predicate. Whichever subpart the physical expression of emphasizer is attached to, the meaning of the whole construction acquires emphasis.

2.3.5 Scope of adverbs

An adverb generally precedes the CV sequence. For instance, the adverb of completion *nimešer moddhe* 'within a moment' and the manner of adverb *taṛataṛi* 'quickly' precedes the CV sequences in (44a) and (44b).

44a. *ritu nimeš-er moddhe kaj-ṭa* ***kor-e phel-lo***
Ritu moment-gen within work-cl do-cp drop-3 pt
'Ritu completed the work within a moment'

b. *ritu chobi-gulo taṛataṛi* ***dekh-e ni-lo***
Ritu picture-cl quickly see-cp take-3 pt
'Ritu quickly went through the pictures'

An adverb can also occur between the two verbs of CV sequences. This is illustrated in (44c) and (44d):

44c. ***kor-e*** *thikmoto-i* ***de-be****, tɔbe kɔto-ṭa kaj-e lag-be jan-i na*
do-cp properly-emp give-3 ft but how much-cl use-loc feel-3 ft know-1 pr neg
'He will do the work alright, but (I) doubt how useful (it) will be for you'

d. ***šu-e*** *taṛataṛi* ***poṛ-echi*** *bɔṭe, tɔbe ghum kɔkhon aš-be jan-i na*
lie down-cp early fall-1 pr pft prt but sleep when come-3 ft know-1 pr neg
'(I) have got into bed early, I wonder when I will fall asleep'

The semantics of a verb is modified by adequate adverbial function. Since it is never found that separate adverbs modify members of a CV individually, the natural conclusion is the

following: an adverb irrespective of its position in a sentence does not modify subparts of a CV cluster but considers the whole construct as a single semantic unit and modifies the semantics of the whole CV sequence.

2.4 Conclusion

I adopted the notion of predicate which Ackerman et al. maintain in their book 'A Theory of Predicate' (1998) and argued that Bangla CV sequences represent one function-semantic unit, a predicate. In section 1, I examined the constituency status of CV sequences in Bangla. We observed that the verbal sequence as one unit provides morphological base to various morphological and syntactic processes. On the other hand, the two constituents of CV sequences enjoy a considerable amount of freedom of movement. Adverbs and negative particles can also intervene between the two verbs. I have chosen to shift the focus from the surface representation of CV sequence and highlight the contention that CV sequences represent one predicate. Section 3 presented evidence in support of this claim. The advantage of identifying the existence of the construct *predicate* is that it enable me to propose a unified explanation for the head of phrase structure. In chapter 6 I will contend that the morphophonological representation of a predicate, which can be a one-word expression (i.e., simple verb form) or a multi-word expression (i.e., compound verb form), is the head of the phrase structure that it projects.