1. Introduction

- In a number of head final languages (majorly Indo-Iranian), post-verbal CPs need to obligatorily extrapose to the post-verbal position.

- A number of Indo-Aryan languages like Bangla, Oriya, Assamese, Marathi possess both an initial C and a final C and possess both pre-verbal and post-verbal complement clauses (pre-verbal ones head-final and post-verbal ones head-initial)

- Post-verbal and pre-verbal complement clauses of a number of Indo-Aryan languages have been widely discussed in the literature in relation to their wh-scope bearing properties (Dayal 1996, Bayer 1996, Mahajan 1990, 1997, Dasgupta 1980, 2007, Simpson and Bhattacharya 2003, Bhatt and Dayal 2007, Richards 2010, Manetta 2011 and others). It has been observed that post-verbal complement clauses do not allow wide-scope wh from inside them, while bole clauses and complementiser-less pre-verbal clauses allow the same, as shown by the following examples-

(1) a. ora shuneche (je) [ke ashbe]
   they heard who come
   # ‘Who have they heard will come?’
   ‘They have heard who will come.’

b. ora [ke ashbe] shuneche?
   ‘Who have they heard will come?’
   ‘They have heard who will come.’

This has given rise to two prominent views of the phenomenon- preposing complement clauses to the pre-verbal position makes them transparent to wide scope-wh/ extraposing complement clauses to the post-verbal position results in freezing of wh-scope. These two views essentially rest on different assumptions about the base generated position of the complement CPs in head final languages.

Complement clauses of different kinds can occur in different positions in a Bangla clause. The complement clauses also show markedly different properties in addition to those of wh-licensing.

The sections below discuss or mention four kinds of complement clauses that will be termed the following-

- Post-verbal clauses

(2) a. Ram shuneche [(je) Raja cakri peyeche
   Ram heard [that Raja job got ]
   ‘Ram has heard that Raja has received a job.’
   Schematic Representation- S V [S O V]
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- Preverbal clauses (preverbal complementiserless clauses, henceforth PCL clauses)
  b. Raja [Ram cakri peyeche] shuneche.
     Raja Ram job received heard
     ‘Ram has heard that Raja has received a job.’
     Schematic Representation- S [S O V] V

- bole clauses (final complementiser clauses)
  c. Ram [Raja cakri peyeche bole] Ram shuneche.
     Ram Raja job received C Ram heard
     ‘Ram has heard that Raja has received a job.’
     Schematic Representation- [S O V C] S V

- Pre-verbal je clauses (preverbal clauses with initial complementiser je)
  d. Ram [Raja (je) cakri peyeche] shuneche.
     Ram Raja that job got ] heard
     ‘That Raja has got a job, Ram has heard.’
     Schematic Representation- S [S C O V] V

Wh-Scope Properties

The wh-scope properties of the above clauses have been summarized in the table below.

<table>
<thead>
<tr>
<th>Type of Clause</th>
<th>Wide wh</th>
<th>Scope-wh</th>
<th>Narrow wh</th>
<th>Scope-wh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-verbal clause</td>
<td>×</td>
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<td>√</td>
<td></td>
</tr>
<tr>
<td>bole clause (pre or post subject)</td>
<td>√</td>
<td></td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Pre-verbal je clause (pre or post subject)</td>
<td>×</td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Pre-verbal comp-less clause (post-subject)</td>
<td>√</td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Pre-verbal comp-less clause (pre-subject)</td>
<td>×</td>
<td></td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>

Below we discuss the relation between these different complement types, by sketching out their properties.

The clauses will be presented in 3 sets- PCL and bole clauses, pre-verbal je clauses, and post-verbal clauses.

2. PCL Clauses and bole clauses

The PCL clauses and the bole clauses show a number of common properties. It should be noted that all of these properties are also shared by infinitival clauses, that are usually pre-verbal.
Restrictions on Selecting Predicates- CP Subject Matter and CP- Causer Predicates (Pesetsky 1995 and Hartman 2012)

Complement CPs do not always hold the same thematic relation with the predicates that select them. As per the terminology in Pesetsky (1995), complements can refer to the cause of the predicate, or to the subject-matter of the predicate.

*Complements referring to the subject matter of the selecting predicate (eg. 11 from Hartman 2012)*

(3) a. John is aware that Mary left.
b. John suspects that Mary left.

c. John is certain that Mary left

Complements referring to the cause of the selecting predicate

d. John is furious that Mary left.

e. John is relieved that Mary left.

f. John rejoices that Mary left.

A general list of CP Subject Matter predicates- confident, aware, know, think, believe, suspect, expect, remember, forget, sure- contains most of the classic propositional attitude predicates

A general list of CP-Causer predicates- happy, sad, excited, surprised, angry, jealous, relieved, distressed, devastated, annoyed, rejoice- mainly predicates of emotion.

- The post-verbal and pre-verbal position in Bangla track to a similar distinction.

- CP Subject Matter predicates can take both pre-verbal and post-verbal clausal complements, while CP-Causer predicates can take only post-verbal complements.

(4) a. Ram [Anup cakri peyeche (bole)] bhabche.
    Ram Anup job received C thinks

b. Ram bhabche je [Raja cakri peyeche.]
    Ram thinks C Raja job received

c. ??Ram [Anup cakri-Ta pay-ni (bole)] dukkhito.
    Ram Anup job-CL received-Neg C sad

d. Ram dukkhito [je Raja cakri-Ta pay-ni].
    Ram sad C Raja job-CL receive-Neg

This raises a question for the antisymmetric approach as to why are movement to pre-verbal position is not available with the Causer predicates then?

- The CP-subject matter predicates take regular DP complements, while the DP complement of CP-Causer predicates have to be obligatorily marked with oblique case.
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(4) a. Ram e kOtha-Ta jane/ bhabe/ shuneche/bojhe.
   Ram this word-CL knows/thinks/heard/understands
   ‘Ram knows/thinks/heard/understands this.’

   b. Ram e bepar-Ta-y dukhito.
      Ram this issue-CL-Loc sad
      ‘Ram is sad about this.’

- Nominal Predicates cannot take a pre-verbal complement, but can take a post-verbal one.

(5) a. ??Ram-er [Anup cakri peyeche] bishshash/ dab
      Ram-Gen Anup belief claim
      ‘Ram’s belief/ claim that Anup has received a job’

      b. Ram-er bishshash [je Anup cakri peyeche].
         Ram-Gen belief that Anup job received
         ‘Ram’s belief that Anup has received a job.’

This is reminiscent of Stowell (1981)’s observation that nouns derived from verbs might be unable to acquire their subcategorization frames.

Expletive Pronominal in the theme position

- Post-verbal clauses can occur along with a DP or an expletive pronominal in the pre-verbal position.
- This is not possible with bole-clauses

(6) a. Ram [Anup cakri peyeche bole] (*eTa) mone kOre.
      Ram Anup job received C this mind does
      ‘Ram thinks that Anup has received a job.

      b. Anup eTa/ ekOtha mone kOre [je Anup cakri peyeche].
         Anup this/ this word mind does C Anup job received

Primary Generalisations about Pre-verbal Clauses

Pre-verbal position is a theme position.
Pre-verbal Clauses share the distribution of DPs, can be selected only by predicates that also select a DP complement.
Binding Facts

Another set of interesting observations can be made about the pre-verbal clauses.

- A reflexive nije that requires a clause-mate subject as an antecedent can be licensed within a pre-verbal clause by the matrix subject.
  
  (7) a. Ram [nije bari pahara debe ] thik koreche.
  
  Ram self house watch give right did
  
  ‘Ram has decided to keep a watch on the house himself’

On the other hand, pronouns within the pre-verbal clauses cannot be co-referential to the matrix subject.

b. Ram [meri take?? boi diyeche] jane.

Ram Mary pron book gave knows

‘Ram knows that Mary has given him a book’

This pattern is exactly the opposite for post-verbal clauses!

- The pre-verbal clauses within the same binding domain as the matrix clause??

Right Roof Constraint

Extraposition from a post-verbal CP follows the right roof constraint. However, the same does not hold for the pre-verbal CPs.

(8) Ram [Raja tpeyeche (bole) bhabeche] cakri-Ta

Ram Raja received C thinks job-CL

‘Ram thinks that Raja has received the job.’

The above two facts provide further evidence for the fact that the pre-verbal clauses are not real CPs. See Dasgupta (2007) and Kidwai (2014) for similar claims on the internal syntax of the bole clauses that says bole is a verb that hasn’t undergone full grammaticalisation into a C head.
Two additional properties of pre-verbal clauses

Addition of Focus Particles

- Bangla bears focus particles that attach to DPs, PPs, AdvPs, but never to CPs of any kind. Preverbal clauses can directly take the emphatic/focus particle -i or the additive particle -i/o-unlike post-verbal clauses, or unlike relative clauses or clausal Adverbials.

(9)  
   a. Ram [Anup cakri peyeche (bole)]-i/o mone kOre
       Ram. Anup job. received C i/o mind does
   
   b. *Ram mone kOre je [Anup cakri peyeche]-i/o
      Ram mind does C Anup job received i/o

- Pre-verbal clauses can also take a genitive ending and combine with a comparative degree marker like DPs.

(10) Ram [Anup cakri peyeche ] -r theke [Anup sabityo puroshkar pachhe]
    Ram Anup job received-Gen than. Anup literary award receiving
    shune beshi khushi.
    hear more happy
    ‘Ram is more happy to hear that Anup is receiving a literary award than to hear that Anup has received a job.’

Further Generalisations

Pre-verbal clauses are nominal in nature?

- Kiparsky (1970) argues that complements of factive predicates are nominal in nature and possess a DP shell above them.
- Davies and Dubinsky (2010), Takahashi (2010), Hartman (2012) claim the same for sentential subjects in English (and a number of other languages)

Claims about the PCL and bole clauses

The PCL clauses are bole clauses with a null C. This explains the wide scope wh property of the PCL clauses.

However, what about the narrow scope of the PCL clauses?

I claim that the string S [S O V] V can have two different parses. The complement clause can either be base generated in the theme position with wide scope wh, or it could be a scrambled
counterpart of a post-verbal clause. The difference between the two can be detected by prosody. For a narrow scope reading, the stress is on the matrix V and there is a pause between the embedded clause and the matrix V unlike in the case of wide scope.

A Possible Question
Why can’t bole clauses with null C occur in other positions giving rise to wide scope properties?

Answer
It has been widely observed for English that Cs can’t be deleted in moved positions. Null Cs can occur only when they are adjacent to the verb (see Stowell (1981) for an ECP account, Bošković and Lasnik (2003) for a PF merger account).

3. A Digression into pre-verbal je clauses before returning to the original question
Finite complement clauses, optionally containing the complementiser je, may occur in pre-verbal positions (pre-subject or post-subject). A regular post-verbal finite CP and its extraposed counterpart are given below in 11(a) and 11(b) respectively.

(11) a. Ram shuneche [(je) Raja (*je) cakri-Ta peyeche].
   Ram heard [that Raja job-CL got ]
   ‘Ram has heard that Raja has received a job.’

   b. [(*je) Raja (je) cakri-Ta peyeche] Ram shuneche.
      [Raja job-CL got ] Ram heard
      ‘That Raja has got a job, Ram has heard.’

11(a) and (b) show that the placement of the clause correlates with the internal structure of the clause.

➢ If the clause is post-verbal then je is obligatorily initial (13a).
➢ If the clause is preverbal, then je is obligatorily non-initial (13b).
Therefore, the crucial question is why extraposition of the clause and the movement to the pre-je position are strictly tied to each other.

Movement to the pre-je position exhibits the following properties:
The movement is not limited to the subject. It would hence also be possible in 11(b) to fill the pre-je position with *cakri* ‘job’.

There is no restriction on how many elements within the complement clause can undergo this movement. That is, it is possible to move both *Raja* and *cakri* before *je*. It is also possible for the entire TP [*Raja cakri peyeche*] to undergo this movement.

There is also no restriction on the category of the phrases that can undergo this movement.

As noticed in Hsu (2015), object DPs undergoing this movement need to be either referential elements that can receive a topic interpretation, or focused elements. Such a restriction does not hold for subject DPs. The following examples are taken from Hsu (2015) (gloss and translation mine, capital letters indicate focus in all the following examples).

(12) a. *Jon [kew je aseni] bollo*
   
   John anyone that grandfather seen not said
   'John said that no one came.'

   b. * *Jon [kauke je dadubhai dekh-e-ni] bollo*
   
   John [anyone that come not] said
   ‘That grandfather didn't see anyone, John said.’

   c. *Jon [KAUGE je dadubhai dekhe-ni] bollo. John*
   
   anyone that grandfather seen - not said ‘That
grandfather didn't see ANYONE, John said.'

This challenges the accounts that treat this movement as generally driven by information-structural features (e.g., Bayer & Dasgupta 2010).

**Prosody of je**


- all unaffixed, monosyllabic lexical words in Bangla are realized with long vowels, indicating that the Bangla PWd is minimally bimoraic. Crucially, the complementizer *je* does not undergo lengthening, indicating that it is prosodically realized as a syllable that does not additionally project to a PWd.
Given that *je* is prosodically deficient, it is banned from occurring at the edge of an intonational phrase. This can be formalized by the constraint Strong Start (Selkirk 2011).

**Strong Start** (Benett et. al. 2016)
Prosodic constituents above the level of the word should not have at their left edge an immediate subconstituent that is prosodically dependent.

Hsu (2015) also shows, based on Khan (2008) and Hayes and Lahiri (1991)’s work on Bangla intonation that pre-verbal *je* clauses form separate intonational boundaries, while post-verbal clauses don’t.

This makes the pre-*je* movement phenomenon look like a prosodically-conditioned movement, very similar to the second position clitic phenomena.

**Prosodic Inversion?**
Phonology has a filtering effect in that it rules out constructions in which a clitic is found sentence initially.

Clitics are allowed to move in PF in order to satisfy this requirement.

Given the well-defined motivation for PF movement, the movement ends up being very local. (It places the clitic in a position immediately following the first stressed word.)

However, this account becomes a problem for the Bangla data because prosodic units of varying number and type could precede the element *je*.

The movement to the pre-*je* position also seems to be a syntactic movement obeying syntactic constraints, unlike in a number of PF movements. This movement can’t strand a P, can’t left-branch extract from genitive DPs, or can’t break a coordinate structure.

(13) a. *[Ram-er je shathe Robi porto], Raja jane.
   [Ram-Gen C with Ravi studied] Raja knows
   ‘That Ravi was Ram’s classmate, Raja knows.’

b. *Ram-er je chatro cakri peyeche], Raja. jane
   [Ram-Gen C student job got] Raja knows
   ‘That Ravi was Ram’s classmate, Raja knows.’

c. *Ram-er poribar je ar Anup-er bondhura berate gache, …..
   Ram-Gen family C and Anup-Gen friends tour gone
   ‘That Ram’s family and Anup’s friends have gone for a tour,…’

Following examples show that these facts do not hold for canonical clitic second phenomena.

*Serbo-Croatian (Bošković 2001)*
(14)a. *Ciju zenu li (Peter) voli? whose wife Q Petar loves

‘Whose wife does Peter love?’
b. Ciju *li zenu (Petar) voli?
Irish (Benett et al. 2016)

(17) is cuma ’na shamhradh e’no’na gheimhreadh COP.PRES no.matter PRED summer it or PRED winter
‘It doesn’t matter whether it’s summer or winter.’

Information Structural Properties of the pre-je construction

➢ The pre-verbal je clause must be interpreted as discourse-given. The speaker presupposes the truth of the complement proposition, and also assumes that the hearer does so too.
➢ Therefore, this construction can be found only with factive predicates.

This is exactly in line with clausal topicalisation in English. Kiparsky and Kiparsky (1970) show that topicalisation is okay only with factive complements.

(18) a. I regret that John is ill.
   b. It seems that John is ill.
   c. That John is ill I regret.
   d. That John is ill it seems.

A Possible Account of the Bangla Facts
Drawing on a recent proposal by Bošković (2016) for the derivation of V2, I propose that the pre-je movement can be understood as carried out by an Agree-less EPP feature on je (EPP that triggers movement without a feature-based Agree relation established).

➢ This EPP attracts the element closest to je to its specifier. The attracted element is usually the subject (rough structure in 19(a) below), and in this case, no information-structural effect results.
   (19) a. [jeP Rajai [je [TP ti... [VP cakri peyeche]]]

➢ In order for the object to be attracted instead of the subject, the object has to be scrambled over the subject (see 19(b)). Because scrambling in Bangla has information-structural effects (specifically, non-focused indefinites cannot be scrambled out of the vP), it follows that objects in the pre-je position bear an information-structurally marked status, unlike subjects.

   b. [jeP CAKRIi [ je [TP ti [TP Raja... [VP ti peyeche]]]]]

The movement to pre-je position is not information-structure driven. Successive movements are movements to a Topic position.
d. \([\text{TopP cakrik } [\text{jeP Rajai } [\text{je } [\text{TP ti} \ldots [\text{VP tk peyeche}]]]]\)

\[
\text{TopP}
\quad \text{Top P}
\quad \text{jeP}
\quad \text{je } [uEPP^*] \ldots
\quad \text{TP}
\]

Finally, topicalised elements appear to follow \textit{je} in post-verbal clauses (nothing can precede \textit{je} in post-verbal clause, as given in 11a) because \textit{je} has another postsyntactic constraint to fulfill- that it has to mark the edge or boundary between two clauses.

When \textit{je}-clause is fronted, Strong Start is violated if \textit{je} is fronted to the edge. Strong Start > Mark Edge.

Hence \textit{je} is not fronted to the edge.

(21) Post-verbal Position

\begin{tabular}{ccc}
\textit{je} & TopP & \\
\text{TopP } & \textit{je} & \\
\text{Pre-verbal Position} & \\
\textit{je} & TopP & \\
\text{TopP } & \textit{je} & \\
\end{tabular}

Strong Start & Mark Edge

* & *

This claim is somewhat in tandem with the proposal in Manetta (2006) about Hindi/ Kashmiri complementisers as edge markers rather than real C heads.

Thus, I claim that the pre-\textit{je} movement happens in syntax, but the final order is determined by post-syntactic constraints of Strong Start and Phase Edge Marking.

4. Coming back to the original Question

From the above discussion of pre-verbal \textit{je} constructions, it seems that the pre-verbal position in this case is special and discourse-marked, as opposed to the post-verbal ones.

Post-verbal Clauses

- Post-verbal CPs are the unmarked and most frequently used clausal complements.
As mentioned above, they can be selected either by CP-Subject matter or CP-Causer predicates.

They can optionally occur with a nominal correlate in the preverbal position. However, it is evident that the post-verbal clauses do not form one single category. The post-verbal clauses allow extraction from within them only when they occur as a complement to a CP subject-matter predicate, and only when they occur without a nominal correlate.

Presence of a nominal correlate also has semantic effects- with certain predicates it has to bear contrastive focus. (deCuba and Ürögdi 2007 for similar effects in Hungarian)

This creates a problem for the position that post-verbal clauses are always extraposed clauses.

**Generalisations about post-verbal clauses**

Complements to subject-matter predicates are base generated in the post-verbal position. Complements to Causer predicates are extraposed structures, opaque to extraction. Post-verbal clauses could also be adjuncts to a nominal correlate, in which case they are again extraposed and opaque to extraction.

**Therefore, the crucial conclusion here is that Bangla allows for selection of complements in multiple directions- CP complements to the right, DP and PP complements to the left.**

**Overall Picture**

- Pre-verbal clauses (both PCL and final C) seem to be base generated in the pre-verbal theme position.
- Subject-Matter CPs can either take a DP shelled-clause to the left, or a CP clause to the right.
- Pre-verbal je clauses are base generated post-verbally as a complement of a Subject Matter predicate, and moved to the pre-verbal position.
- Post-verbal Causer CPs are generated as adjuncts to a nominal element taking up the pre-verbal theme position, and then undergo extraposition.
- Pre-subject position is a scrambled position.
- Pre-verbal position could also be interpreted as a moved position, which results in a narrow scope wh reading.

**Larger Claim**

Bangla pre-verbal and post-verbal positions aren’t derived from one another. Bangla makes a strong case in favour of a mixed-headed system that allows the selection of complements both to the left and right.

**Area to be pursued further**

Pragmatics of the usage of the post-verbal and pre-verbal clauses
Reference

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