Moving subjects out of finite *je*-clauses in Bangla: A case of Hyper-raising?

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ABSTRACT

In Bangla (Bengali; Eastern Indo-Aryan), an embedded subject from a finite complement clause can be moved out to the matrix clause which violates syntactic constraints like PIC, Activity Condition and Case theory. This phenomenon has been observed cross-linguistically and consequently named as hyper-raising (Ura 1994). Bangla exhibits an interesting case of this hyper-raising constructions where the embedded subject can only move out when the finite post-verbal complement clause lacks an overt C head *je* (initial complementizer, Singh 1980; Bayer 1996, 1999, 2001; Bhattacharya 2001, 2002, 2015, *among others*). This paper examines whether or not this movement is actually an instance of true A-movement. Along with this, a possible solution is also presented for the puzzle of the Bangla hyper-raising which lacks an overt complementizer head. This is different from other instances of hyper-raising seen cross-linguistically. The proposed solution shows why all the previous analyses may not be a right fit to the type of hyper-raising seen in Bangla, but can be simply answered through drawing a parallel to the *that*-trace effect seen in English *wh*-movement. Following Obata (2018) to explain the *that*-trace effect seen in the A-movement of the (hyper)-raised NP, it is shown that not C deletion but it is rather the external merge of the C to T that captures the absence of the IC head *je*- in Bangla hyper-raising.

1 Introduction

Movements of syntactic elements (such as nominals or pronominals, phrases, clauses, and so on) have taken center stage in syntactic work since the beginning of the generative grammar framework. One of the most ubiquitous and prominent movements of such is *raising* where a nominal is raised out of a non-finite complement clause to the [Spec, TP] of the matrix clause for reasons like Case and EPP in languages like English. Chomsky's idea of Phase (2000, 2001) is centered around these concepts of Raising, ECM, and Control. A non-finite embedded clause, which lacks a CP layer (as seen in English-type Raising), fails to be a phase – thus allowing movements out of it (PIC, Chomsky 2000, 2001). This movement is an instance of A-movement as the raised element goes to a targeted position ([Spec, TP]) in the matrix clause to check the EPP on the matrix T head and gets nominative Case on it.

(1) John$_i$ seems [$_{TP}$ t$_i$ to like the cake.]

But investigation into other languages shows us something different. A-movement of subjects or objects is allowed out of a finite embedded clause even when it is a CP, violating constraints like Phase Impenetrability Condition, Activity Condition (PIC, Chomsky 2000, 2001), and Case theory. This phenomenon has been termed as *hyper-raising* (Ura 1994). Languages such as Brazilian Portuguese (Ferreira 2000, 2004; Martins & Nunes 2005, 2009; *among others*), Bantu languages such as Zulu (Halpert 2012, 2015, 2019), Logoori and Tiriki (Diercks et al. 2022), Vietnamese and Cantonese (Lee & Yip 2024) and many more reveal instances where the embedded nominals can easily raise out of the finite embedded clause to an A-position in the matrix clause, violating all the constraints that have been discussed.

Although there has been much discussion on hyper-raising constructions in a large number of languages, there has not been any such discussion for Bangla. In this paper, I claim that these instances of A-movements across a finite clause boundary are also available in Bangla (Bengali; Indo-Aryan). In the language, subject-to-subject hyper-raising is seen across post-verbal complement clauses in the presence of a perception predicate like *mone hOy* ('seem') in the matrix clause.

(2) **Oroni**$_i$ **mon-e** **hO-y** [(*je) **t**$_i$ gotokal skul-e eS-ech-il-o]
oroni.NOM mind-LOC be-HAB.3 IC yesterday school-LOC come-PFV-PST-3
'Oroni seems to have come to school yesterday.'

As we see in example (2), the matrix predicate has default agreement (3P) on it which generally occurs when the subject is non-nominative (e.g., *amar* ('1SG.GEN'), *tomar* ('2SG.GEN'), *Rima-r* ('Rima-GEN') and so on). Along with this, I argue that in Bangla hyper-raising construction (see the example in (2)), there is a phonologically null or non-overt C head present and this IC *je* actually behaves similarly to the *that* in English *wh*-constructions. In English, movement of the embedded *wh*-phrase to the matrix [Spec, CP] position is disallowed but is available once the complementizer is deleted (Chomsky 2013, 2015). This has been known as the *that*-trace effect in literature. Chomsky (2015) has shown through labeling that this complementizer head is actually deleted syntactically, making T the new phase-head in the derivation. The deletion of this C makes the embedded CP phase weaker – which in turn, allows the movement of the embedded *wh*-phrases to a higher position (Chomsky 2013, 2015) in the matrix clause. But this stipulation becomes problematic for reasons like 'selection', 'legibility conditions', and 'recoverability conditions' (Obata 2018). I follow Obata (2018) to show that instead of C-deletion, external pair-merge of C to T will give us a neater solution for the ungrammaticality of the IC head *je* in example (2).

The sectioning of the paper will be as follows. In the next section, I give some data of the subject movement in Bangla across a finite clause boundary and show some of the key factors related to such movements in the language. In section 3, whether or not the movement that we see is a true A-movement will be examined through a few diagnostics. In section 4, I will propose a solution for the type of A-movement across finite clause boundary that we encounter in Bangla. Section 5 concludes the paper.

2 Empirical background: some key factors from Bangla

This section discusses some data from Bangla[1] where subject-to-subject movement is allowed across a finite clause boundary along with some other interesting factors seen in such constructions like the complementizer inside the complement clause, the raising predicate, and the agreement on such raising predicate.

Bangla, like other Eastern Indo-Aryan languages of India (e.g., Assamese, Odia) can have two ways of sub-ordination with respect to the position of the verb in the matrix clause (Singh 1980; Bayer 1999, 2001; Bhattacharya 2001, 2002, 2015; *among others*). An embedded subject from a finite post-verbal complement clause can raise out to the matrix subject position in presence of a specific predicate in Bangla. In example (3) below, the embedded subject *Oroni* has been moved to the subject position in the matrix clause. This subject-to-subject movement occurs across a finite clause boundary and in presence of a predicate *mone hOy* ('seem') which is a perception verb[2]. The embedded clause in the example below is also post-verbal in nature.

(3) **oroni**$_i$ **mon-e** **hO-y** [$_{CP}$ (*je) **t**$_i$ gotokal skul-e
oroni.NOM mind-LOC be-HAB.3 IC yesterday school-LOC
eS-ech-il-o]
come-PFV-PST-3
'Oroni seems to have come to school yesterday.'
Lit: 'Oroni seems has come to school yesterday.'

This subject-to-subject raising has been known as hyper-raising cross-linguistically (Ura 1994). But before we turn to see whether the subject-to-subject raising in Bangla (as seen in example (3)) is indeed a case of hyper-raising in the language or not, there needs to be a discussion about some of the factors related to such a movement in the language. There are similarities between the constructions seen in (3) and other languages that show hyper-raising. But interestingly, there are also a few differences in what happens in the embedded clause in Bangla as opposed to other languages exhibiting the same movement. I discuss both the similarities and the dissimilarities in details below.

2.1 Optionality of the movement

Although the movement in example (3) is readily available in Bangla, it is not obligatory; i.e. the subject may not move out of the embedded clause at all.

[1]Unless stated otherwise, judgement for all the Bangla data has been taken from the author herself who is a native speaker of the language.

[2]Perception verb is a type of attitude verb which talks about the speakers' sensory perceptual (visual or non-visual) experiences. Verbs like *seem*, *appear*, etc., are examples of visual perception verbs whereas verbs like *taste*, *feel*, *sound*, etc., are examples of non-visual perception verbs.

(4) (amar) mon-e hO-y [(je) **Oroni** gotokal skul-e
1SG.GEN mind-LOC be-HAB.3 IC oroni.NOM yesterday school-LOC
eS-ech-il-o]
come-PFV-PST-3
'I think/ feel that Oroni has come to school yesterday.' Or 'It seems to me, that Oroni has come to school yesterday.'

In the example above, the subject *Oroni* does not move out of the embedded clause. It remains in-situ and a genetive marked experiencer subject *amar* (1SG) can sit in the subject position of the matrix clause or be dropped.

This movement of the subject is completely unavailable out of a non-finite embedded clause as seen in the example below.

(5) *Oroni mon-e hO-y [t_i gotokal skul-e as-te]
Oroni.NOM mind-LOC be-HAB.3 yesterday school-LOC come-INF
'Oroni seems to have come to school yesterday.'

Such optionality of movement has also been observed across Bantu languages like Zulu, Logoori, Tiriki (Halpert 2012, 2015, 2019; Diercks et al. 2022), etc. Bangla also patterns similarly to these Bantu languages in how the movement of the subject is optional and yet banned out of a non-finite embedded clause. This gives us some useful insight into what happens in Bangla.

2.2 Complementizer in the embedded clause

A-movement of the subject from embedded clause to the matrix clause, as seen in example (3) above, is only allowed across a post-verbal[3] complement clause in Bangla. And it is a known fact that the post-verbal clauses in Bangla are headed by an initial complementizer (or IC) *je* (Singh 1980; Bayer 1999, 2001; Bhattacharya 2001, 2002, 2015, *among others*), which can be dropped from the embedded clause it appears in.

[3]An anonymous reviewer pointed out whether or not such A-movements across pre-verbal *bole*-clauses are allowed in the language. To answer this question, we have to look at what happens both inside and outside such pre-verbal clauses headed by a final complementizer *bole* (derivative of SAY-verb). When the embedded clause is pre-verbal, out of which the subject moves out to a higher position, it becomes problematic to examine whether the subject is raised or base-generated in the matrix clause due to the linear order observed in the example.

(i) Oroni$_i$ [t_i gotokal skul-e eS-ech-il-o (bole)] mon-e hO-y
oroni.NOM yesterday school-LOC come-PFV-PST-3 mind-LOC be-HAB.3
'Oroni seems to have come to school yesterday.'

(6) robi bhab-l-o [(**je**) Oroni gotokal skul-e eS-ech-il-o]
robi.NOM think-PST-3 IC oroni.NOM yesterday school-LOC come-PFV-PST-3
'Robi thought that Oroni came to school yesterday.'

Interestingly, this is not what is seen in examples like (3) where the movement of the embedded nominal across finite clauses is allowed in the language. The initial complementizer *je* in these constructions is non-overt. In fact, presence of the IC *je* inside the post-verbal finite embedded clause makes the sentence ungrammatical[4].

(7) *Oroni$_i$ mon-e hO-y [**je** t$_i$ gotokal skul-e eS-ech-il-o]
oroni.NOM mind-LOC be-HAB.3 IC yesterday school-LOC come-PFV-PST-3
'Oroni seems to have come to school yesterday.'
Lit: *'Oroni seems that has come to school yesterday.'

This absence of an overt complementizer inside the embedded clause is not what we see in a canonical hyper-raising construction generally. Also, this ungrammaticality of *je* inside the embedded clauses brings forth a question: does the embedded clause even constitute a CP when the complementizer itself is absent? I will return to this question in the later sections of the paper.

2.3 Selected predicate that aids the movement

In Bangla, such an embedded subject movement is licensed by a specific perception predicate *mone hOy* ('seem') as seen in example (3)[5]. The interesting thing to notice here is that this verb is restricted in its form when it licenses such a movement in the language.

(8) a. Oroni$_i$ **mon-e hO-y/ ho-cch-e** [(*je) t$_i$ gotokal
oroni.NOM mind-LOC be-HAB.3/ be-PRES.PROG-3 IC yesterday
skul-e eS-ech-il-o]
school-LOC come-PFV-PST-3
'Oroni seems to have come to school yesterday.'

b. *Oroni **mon-e ho-l-o/ ho-yech-il-o/ ho-cch-il-o/ ho-t-o/**
oroni.NOM mind-LOC be-PST-3/ be-PFV-PST-3/ be-PROG-PST-3/ be-IMPF-3/
hO-b-e [(*je) t$_i$ gotokal skul-e eS-ech-il-o]
be-FUT-3 IC yesterday school-LOC come-PFV-PST-3
'Oroni seems to have come to school yesterday.'
Lit: 'Oroni is seeming to have come to school yesterday.'

[4]For some speakers of the language, presence of this *je* inside the embedded clauses does not sound as bad. One reason for the acceptability can be due to the possibility of *je* being a discourse particle (see Bayer & Dasgupta (2016) for more discussion.)

[5]*mone hOy* ('seem') in Bangla is an example of a complex predicate where the first verb is a nominal marked with a locative *-e* marker and the second verb *hO-y* ('be-HAB.3') is an inflected auxiliary.

In the set of examples shown above, the tense morphology on the second verb (which generally takes the tense and agreement markers in a complex predicate in Bangla) of the predicate is restricted to either *hO-y* ('be-HAB.3) or *ho-cch-e* ('be-PRES-PROG.3'), no other tense markers are allowed in an environment where the subject movement happens.

But this changes when the subject is non-nominative and the complementizer *je* inside the embedded clause is overt. In example (9), the matrix verb can take all the different tense inflections on it[6].

(9) amar mon-e **hO-y/ ho-cch-e/ ho-l-o/ ho-yech-il-o/**
1SG.GEN mind-LOC be-HAB.3/ be-PRES.PROG-3/ be-PST-3/ be-PFV-PST-3/
ho-cch-il-o/ ho-t-o [(je) Oroni gotokal skul-e
be-PROG-PST-3/ be-IMPF-3/ IC oroni.NOM yesterday school-LOC
eS-ech-il-o]
come-PFV-PST-3
'I think/ feel/ am thinking/ am feeling/ thought/ felt/ had thought/ had felt/ was thinking/ was feeling that Oroni has come to school yesterday.' Or, 'To me, it seems/ is seeming/ seemed/ had seemed/ was seeming/ used to seem that Oroni has come to school yesterday.'

In example (9), the verb does not allow A-movement of the embedded nominal *Oroni* to the matrix clause[7]. There is also a noticeable distinction in the meaning of the two verbs used in both examples (8) and (9). In the first set of examples, when the verb is restricted in its form and allows movement, the meaning is similar to a raising verb like 'seem' in English. But the verb in example (9) gives a meaning similar to the attitude verbs 'feel' or 'think' or non-raising 'seem' in English.

[6]I purposefully avoid the usage of future tense (*mone hObe*, ('will seem/ feel/ think')) of the perception verb in the current set of examples as it will bring forth the discussion of different properties of this verb which is beyond the scope of our current discussion. But the usage of this form does exist in the language as seen in the example below:

(ii) amar mon-e hO-b-e ar Oroni skul-e co-l-e ja-b-e?
1SG.GEN mind-LOC be-FUT-3 and oroni.NOM school-LOC go-PRT go-FUT-3?
'Just because I thought of it, it won't mean that Oroni will go to school.'
Lit: 'I will think and Oroni will go to school?'

[7]A'-movement (like topicalization) of the embedded nominal in such sentences is allowed.

(iii) Oroni$_i$, amar mon-e **hO-y/ hocche/ ho-l-o/ ho-yech-il-o/**
oroni.NOM 1SG.GEN mind-LOC be-HAB.3/ be-PRES.PROG.3/ be-PST-3/ be-PFV-PST-3/
ho-cch-il-o/ ho-t-o [(je) t$_i$ gotokal skul-e eS-ech-il-o]
be-PROG-PST-3/ be-IMPF-3 IC yesterday school-LOC come-PFV-PST-3
'Oroni, I think/ feel/ am thinking/ am feeling/ thought/ felt/ had thought /had felt/ was thinking/ was feeling that he has come to school yesterday.' Or 'Oroni, to me, it seems/ is seeming/ seemed/ had seemed/ was seeming/ used to seem that he has come to school yesterday.'

This duality of the perception verb *mone hOy* ('seem'/ 'feel'/ 'think') in how they behave differently with respect to their tense morphology, availability of an overt complementizer, and meaning will give us more insight into the movement of the embedded subject across the finite post-verbal clauses in Bangla.

2.4 Default agreement on the matrix verb

In Bangla, agreement between subject and verb is restricted to only person feature. Agreement failure happens when the subject is non-nominative and as a result the verb gets default agreement on it.

(10) **amar/ tomar/ o-r/ Oroni-r** khub khide pe-yech-**e**
1SG.GEN/ 2SG.GEN/ 3SG-GEN/ oroni-GEN very hunger get-PRES.PFV-3
'I/ you/ he/ she/ Oroni feels hungry.'

The default agreement in Bangla as shown in example (10), is realized as 3P at the end of the verb in the clause. This is exactly what we see in our examples where the subject movement is allowed across a finite clause boundary.

(11) **ami**$_i$/ **tumi**$_i$/ **Se**$_i$/ **Oroni**$_i$ mon-e hO-**y** [t$_i$ gotokal
1SG.NOM/ 2SG.NOM/ 3SG.NOM/ oroni.NOM mind-LOC be-HAB.3 yesterday
skul-e eS-ech-il-**am/e/o**]
school-LOC come-PFV-PST-1/2/3
'I/ You/ He/ She/ Oroni seem(s) to have come to school yesterday.'

As seen in example (11), even when the moved subject in the matrix clause is in first person, second person or third person, the agreement on the matrix clause remains 3P which is the default agreement in the language. Again we encounter a puzzling issue that even though the embedded subject moves to the matrix clause, it does not agree with the matrix verb at all. This non-agreeing pattern of the matrix verb is similar to what we see in languages like Zulu (Halpert 2012, 2015, 2019), Logoori and Tiriki (Diercks et al. 2022), and so on.

I will now turn to diagnose whether these movements are true instances of A-movement or not along with other factors that are important to understand what happens in hyper-raising constructions in Bangla.

3 Diagnosing hyper-raising in Bangla

Beginning from Ura (1994) and continuing to the most recent syntactic works across various languages (Ferreira 2000, 2004; Halpert 2012, 2015, 2019; Diercks et al. 2022; Martins & Nunes 2005, 2009; Greeson 2023; Lee & Yip 2024), A-movement of subjects (or objects) out of finite clauses or hyper-raising has started to gain enough attention in the literature. More and more investigation into the topic has revealed a lot of interesting factors regarding

hyper-raising cross-linguistically. Along with this, there have been multiple ways to diagnose such A-movement cross-linguistically (Martins & Nunes 2005, 2009; Halpert 2015, 2019; Diercks et al. 2022; Greeson 2023; Lee & Yip 2024, *among others*). In this section, I will adopt some of these tests to show what happens in case of Bangla[8].

3.1 Against base-generation

I argue that the movement that we see in examples such as (3), are due to displacement of the subject from the embedded clause to the matrix clause. The subject in the matrix clause is not base-generated in that position, but is moved from a finite embedded clause to that position. The evidences are given below.

A subject that has been moved to a higher position in the matrix clause can be sensitive to island constraints (Greeson 2023; Lee & Yip 2024). In a complex NP island in Bangla, the moved subject fails to establish any thematic relation with the embedded predicate inside that island.

(12) *Island sensitivity*

*__Oroni__$_i$ mon-e hO-y [[__t__$_i$ atokkhone skul-e col-e
oroni.NOM mind-LOC be-HAB.3 already school-LOC go-PRT
g-ech-e khobor-Ta] mithye chi-l-o]
go-PRES.PFV-3 news-CLF false be-PST-3

'The news that Oroni has already gone to school was false.'

The raised subject *Oroni* in example (12) is sensitive to subject-island constraint when the verb *mone hOy* ('seem') is present in the matrix clause. The ungrammaticality of the sentence in the example above gives us evidence that the NP *Oroni* is indeed a result of movement in examples like (3).

3.2 A-movement, not A'-movement

As shown in the section above, the subject in the matrix clause is indeed a result of movement. But it cannot prove whether this movement is A-movement or A'-movement. I will now give some evidence for the type of movement that happens in these constructions.

As many of the languages that exhibit hyper-raising are also instances of *pro*-drop languages, a doubt arises: whether the moved subject is a left dislocated topic with a *pro*-

[8]One important thing to note here is that Bangla is a typologically different language than a lot of the languages that have been diagnosed with hyper-raising. Not every test that has been used for the other group of languages, can be used for what we see in Bangla as the properties of the language like subject-hood, topicalization, prosody, nature of the complementizer, and even the raising predicate differ vastly. So, it is crucial to understand that such A-movements are truly language specific and the tests need to be adapted according to the specific language that is under discussion.

drop[9] in its matrix subject position. Bangla, a partial *pro*-drop language[10], also can be an instance of such mechanism. But I show through the tests given below, this is not what happens in Bangla. The subject-to-subject movement seen in example (3) is a true instance of A-movement.

In hyper-raising languages where a subject has been raised to a higher position, tests like quantifier raising have been used to show if this subject displacement is an A'-movement (topicalized NP) or true A-movement (cf. Martins & Nunes 2009; Lee & Yip 2024, *among others*). In Bangla, a quantified phrase *keu* ('someone') fails to be topicalized, but can be raised.

(13) *Quantifier raising*

a. ***keu**$_i$*, Oroni amake **bol-l-o** [(je) **t**$_i$ por-e g-ech-e]
someone Oroni.NOM 1SG.ACC say-PST-3 IC fall-PRT go-PRES.PFV-3
'Oroni said to me that someone has fallen down.'

b. **keu**$_i$ **mon-e** **hO-y** [**t**$_i$ por-e g-ech-e]
someone mind-LOC be-HAB.3 fall-PRT go-PRES.PFV-3
'It seems that someone fell.'

In example (13a), when the embedded quantifier phrase is moved to the matrix clause in presence of a verb like *bollo* ('said'), the sentence sounds ungrammatical. But in example (13b), the quantified NP has been moved across the finite clause boundary in presence of the matrix predicate *mone hOy* ('seem'). This gives evidence towards A-movement of the raised subject in examples like (13b).

Other diagnostics like the idiom test have been used to examine extractibility of an element. For hyper-raising constructions too, people have used idioms to see if the movement across the raising predicate is an A-movement or not (Halpert 2012, 2015, 2019; Diercks et al. 2022; Lee & Yip 2024, *among others*). In an A'-movement like topicalization, the idiomatic meaning would not be retained after the nominal has been moved. In Bangla, in presence of the matrix predicate *mone hOy* ('seem'), even if we raise the embedded NP to a matrix subject position, the idiomatic meaning of the sentence is retained, proving it is an A-movement.

(14) *Idioms*

a. koi maach-er pran boro-i Sokto
koi fish-GEN life very-EMPH tough
Int: 'A tough nut to crack.' or 'Someone who has a very tenacious soul.'
Lit: 'The koi fish has a strong will to live.'

[9]See Diercks et al. (2022) to understand how 'LD + *pro*-expletive' analysis works or does not work to diagnose hyper-raising in a language.

[10]See Holmberg et al. (2009) to know more about why Bangla is a partial null subject language (NSL).

b. **koi**$_i$ maach-er pran **mon-e** **hO-y** [**t**$_i$ boro-i Sokto]
koi fish-GEN life mind-LOC be-HAB.3 very-EMPH tough
Lit: 'The koi fish seems to have a tough life.'

c. *koi mach-er pran$_i$, ram bol-l-o [(je) t$_i$ bOro-i Sokto]
koi fish-GEN life ram.NOM say-PST-3 IC very-EMPH tough
'The koi fish's life, Ram said, is very tough.'

The example in (14c), when the NP *koi maacher pran* ('the koi fish's life') is topicalized to the front of the matrix clause, the sentence becomes ungrammatical. The idiomatic meaning in this sentence is lost; contrary to what can be seen in (14b) where it is retained fully.

Along with the tests that have shown that the movement in example (3) is indeed an instance of an A-movement, we also now turn to test the weak cross-over effects (or WCO) in Bangla. WCO is generally used to differentiate between A and A'-movement in a langauge. It also creates new binding possiblities (see Greeson (2023) for English, and Lee & Yip (2024) for Vietnamese and Cantonese WCO). Weak cross-over effect arises when a pronominal fails to co-refer to a displaced and quantified antecedent of it. A lack of this WCO effects attest to the fact that the movement is an A-movement.

(15) a. *Bound reading impossible*
*[**tader**$_i$ **malik-ra**] mon-e hO-y [**proti-Ta kukur-ke**$_i$] roj
2PL.GEN owner-CLF mind-LOC be-HAB.3 each-CLF dog-ACC everday
park-e niy-e ja-y
park-LOC take-LOC go-HAB.3
Int: 'The owners of each and every dog seem to take their dog to the park everyday.'

b. *Bound reading possible*
[**proti-Ta kukur-ke**$_i$] mon-e hO-y [**tader**$_i$ **malik-ra**] roj
each-CLF dog-ACC mind-LOC be-HAB.3 2PL.GEN owner-CLF everday
park-e niy-e ja-y
park-LOC take-LOC go-HAB.3
'The owners of each and every dog seems to take their dog to the park everyday.'

As seen in examples (15b), the pronominal *tader* ('their') can be bound by the antecedent *proti-Ta* ('every') which deletes the WCO effect from these sentences. This is completely different to what is seen in example (15a) where the binding between the pronominal and antecedent fails, resulting in WCO effect in the structure. This further proves that the movement shown in example (3) is A-movement and not topicalization.

3.3 Movement across a finite CP

The embedded clause, as shown in example (3), lacks an overt complementizer (IC *je*). This might lead us to believe that the embedded clause might not be a CP, but something smaller than that (a TP or *v*P/VP). But the evidence shows that the embedded clause is indeed a finite CP.

Only a finite TP in Bangla can host agreement, tense and aspectual information inside and this is what we see in example (16). The raised subject *Oroni* exhibits person agreement (3P) with the embedded verb *eSechilo* ('has come') in the example below. Along with this, the embedded verb has a past tense (*-il-*) and aspect (*-ech-*) markers on it.

(16) *Tense and agreement inside the embedded clause*

Oroni$_i$ mon-e hO-**y** [(*je) t$_i$ gotokal skul-e eS-**ech-il-o**]
oroni.NOM mind-LOC be-HAB.3 IC yesterday school-LOC come-PFV-PST-3

'Oroni seems to have come to school yesterday.'

Following *feature inheritance* (Chomsky 2008), the finite T head inside the embedded clause gets all of its ϕ-features from the C head (which is the non-overt IC *je* in the example (16)) above in virtue of C being a phase head. The transferred ϕ-features on the embedded T then establish an Agree relation with the embedded nominal *Oroni* before it raises to the matrix clause. This proves that the embedded clause is a CP, and not anything smaller.

As Cinque (1999) suggests, speaker-oriented adverbs like *unfortunately*, *luckily*, *mistakenly* etc., appear high on a clausal spine. The presence of such adverbs gives us evidence that the embedded clause must have a CP projection and is finite (Huang 2022; Lee & Yip 2024). In Bangla, an adverb like *bhul kore* ('mistakenly') can appear inside the embedded clause.

(17) *Availability of speaker-oriented adverb inside the embedded clause*

ami$_i$/ **tumi**$_i$/ **Se**$_i$/ **Oroni**$_i$ mon-e hO-**y** [bhul
1SG.NOM/ 2SG.NOM/ 3SG.NOM/ oroni.NOM mind-LOC be-HAB.3 mistake
kor-e t$_i$ gotokal skul-e col-e eS-**ech-il-am/e/o**]
do-PRT yesterday school-LOC walk-PRT come-PFV-PST-1/2/3

'I/ you/ he/ she/ Oroni seem(s) to have mistakenly come to school yesterday.'

Thus, it is proved that the embedded clause inside example (3) is indeed a finite CP and the subject-to-subject movement happens across this finite CP boundary.

All the diagnostics that have been used in the section above give us enough evidence that what we see in example (3), is indeed a case of true hyper-raising in Bangla. Now I will try to propose a solution for the syntactic derivation of such constructions.

4 The proposal

In this section, I will first discuss some of the previous analyses that talk about how hyper-raising (subject or object) occurs cross-linguistically. Along with this, I will examine if any of these approaches can be applied to the hyper-raising constructions in Bangla or not. A proposed solution will then be given to analyse these structures in the language drawing parallel with the A'-movement in *wh*-constructions in English. I will also give a working hypothesis about the remaining puzzle of the matrix verb in such constructions in Bangla.

4.1 Previous analyses

There have been several approaches to solve the puzzle of hyper-raising cross-linguistically. From non-phase or defective phase analysis (Ferreira 2000, 2004; Zeller 2006; *among others*) to phase deactivation (Halpert 2019), and movement to the phase edge (Tanaka 2002; Zyman 2017; Fong 2019 *among others*) – each of these try to answer the issues that arise when a subject (or object) is moved out of a finite embedded clause to the [Spec, TP] position of the matrix clause. For our current discussion, I will examine if the first two analyses can be applied in Bangla subject-to-subject hyper-raising seen in examples like (3)[11]. In a hyper-raising environment, the movement of the subject (or object) poses question on constraints such as: (i) Phase Impenetrability Condition (PIC, Chomsky 2000, 2001), (ii) Activity Condition (Chomsky 2001), and (iii) Case theory.

According to the non-phase or defective phase analysis, the subject is allowed to move out of the embedded clause due to the embedded CP lacking in some properties (finiteness, or agreement, or in some other categorial feature and so on (cf. Zyman 2023)). This type of analysis has been used for languages like Brazilian Portuguese (henceforth, BP; cf. Ferreira 2000, 2004; Martins & Nunes 2005, 2009, *among others*) where the movement of the subject out of finite CP is obligatory and not optional and the raised subject agrees with the matrix verb. In these hyper-raising constructions of BP, the embedded T has been argued to be ϕ-defective, thus unable to give nominative Case to the embedded subject. In contrast, the matrix T is ϕ-complete due to which the embedded subject can raise out of the defective CP phase to get its nominative Case checked by the matrix T. The defectiveness of this embedded T has been attested by the fact that in BP, the T head and its finiteness have been simplified throughout the time regarding its morphology (cf. ibid). This is not what we see in Bangla. As discussed in the examples from Bangla, the raised subject does not agree with the matrix verb in a hyper-raising environment. Along with this, the embedded T in Bangla hyper-raising constructions is also not ϕ-defective (see section 3.3, example (16)). Thus, the non-phase or defective phase analysis fails to work in Bangla.

In Brazilian Portuguese, one of the key arguments for the licensing of hyper-raising has been that the embedded nominal when raised, agrees with the matrix verb or raising

[11] The phase-edge analysis has been adopted for mostly hyper-raising to object position cross-linguistically. The current discussion revolves around subject-to-subject hyper-raising in Bangla and although the concept of phase-edge analysis may prove to be useful for such Bangla hyper-raising, I will not consider this for now and focus only on why both defective phase and phase deactivation fail to work in Bangla properly.

predicate. This is not always true for the Bantu languages. Zulu (Halpert 2012, 2015, 2019), along with other Luiya languages (a sub-group of Bantu languages[12]) like Logoori and Tiriki (Diercks et al. (2022)), shows 'non-agreeing hyper-raising' where the raised subject does not agree with the raising predicate. Halpert (2019) tries to solve this issue of 'agreeing' and 'non-agreeing' hyper-raising by postulating phase deactivation analysis. In phase deactivation analysis, an Agree relation is established between the embedded clause (finite CP or non-finite TP) and the raised subject. This Agree relation deactivates the phase boundary due to which the subject can be moved to the [Spec, TP] position in the matrix clause. She further suggests that the embedded CPs have phi-features and and these phi-features play crucial role in establishing two Agree cycles in Zulu hyper-raising constructions. She further provides evidence from Zulu that when the matrix T probe phi-agrees with the embedded CP, the (non-agreeing) **ku-** (17s noun class marker) appears on the matrix verb – thus establishing a non-agreeing hyper-raising in the language.

This account of phase deactivation by establishing an Agree relation between the raised subject and embedded CP has been adopted to several hyper-raising languages (cf. Lee & Yip (2024) for Vietnamese and Cantonese hyper-raising and Greeson (2023) for hyper-raising in English). The idea has been that the CPs (and non-finite TPs) in these languages bear certain ϕ-features which makes the CP a non-intervenor in hyper-raising instances. But this idea of CPs bearing phi-features does not work in Bangla.

(18) *Agreement between CP subject and verb*

*[je o bajar-e g-ech-il-o], amake khub obak kor-l-o
that 3SG.NOM market-LOC go-PFV-PST-3 1SG.ACC very surprise do-PST-3
'That he went to the market, made me very surprised.'

(19) *Agreement inside complex DP constructions*

[ei khobor-Ta [je o mara g-ech-e]] amake khub obak kor-l-**o**
this news-CLF that he/she die go-PFV-3 1SG.ACC very surprise do-PST-3
'The news that he has died, made me very surprised.'

Bangla does not have any object agreement, and a CP cannot occur in the subject position as shown in example (18). As seen in Zulu (Halpert 2012, 2015, 2019), in a complex DP construction, a complex DP in the subject position may show agreement with the verb. But as seen in example (19), we cannot claim that there is agreement between the complex CP subject and the verb *korlo* ('did') conclusively because of the third person agreement marker (which is also a default agreement marker in the language) on the verb. Thus, the phase deactivation account also cannot solve what happens in Bangla hyper-raising.

Apart from the issues that create a barrier in adopting these two hyper-raising analyses in Bangla, we will see in the next section why there may not even be a need to resort to these analyses of hyper-raising for our language.

[12]See Diercks et al. (2022) for more discussion on the classification of Luiya languages and how non-agreeing hyper-raising occurs in them.

4.2 What happens in Bangla?

Now that it has been shown what happens in hyper-raising constructions cross-linguistically and why the analyses that worked for those languages may not work for Bangla, I will try to show exactly what happens in Bangla hyper-raising constructions that set them apart from all the other languages. The difference between what happens in a canonical raising in a language like English, what happens in a typical hyper-raising constructions in languages like Brazilian Portuguese (Ferreira 2000, 2004; Martins & Nunes 2005, 2009, *among others*), Bantu languages like Zulu (Halpert 2012, 2015, 2019) etc., and compare it to what happens in Bangla has been shown schematically below.

(20) Canonical raising: [XP seem [$_{TP_{[NF]}}$ t$_{XP}$ . . .]]

(21) Hyper-raising: [XP seem [$_{CP}$ (C) [$_{TP_{[F]}}$ t$_{XP}$ . . .]]]

(22) Bangla hyper-raising: [XP seem [$_{CP}$ (*C) [$_{TP_{[F]}}$ t$_{XP}$ . . .]]]

One crucial difference that can be seen in Bangla, but is not seen in any of the hyper-raising languages, is the absence of the C head inside the embedded clause. As discussed in section 2 and 3, although the C head is non-overt in the embedded clause, it is indeed a CP. I argue that the answer lies in what happens in the *that*-trace effect seen in English *wh*-constructions. In both constructions, the C heads are non-overt or morphologically null – creating the assumption that the C head is syntactically deleted (Chomsky (2013, 2015)) in these structures. But there are issues that come with such a stipulation. I discuss them below and show why C deletion may not work for Bangla hyper-raising and to make our argument stronger for the absence of *je* inside the embedded clause, we might need to resort to a better solution.

4.2.1 C-deletion or something else?

There can be a parallel drawn between the absence of complementizer in English *wh*-constructions to what we see in Bangla hyper-raising constructions, arguing that both of these exhibit *that*-trace effect. In both of these constructions when we try to move an embedded nominal to a higher position in the matrix clause, the complementizer inside the embedded clause needs to be non-overt. Only then the movement is allowed. The only difference between the two is that the former is an instance of A'-movement, while the latter is an A-movement.

(23) a. *wh*-constructions in English → A'-movement

b. hyper-raising in Bangla → A-movement

Now, I first assume that there is an apparent complementizer deletion happening in hyper-raising constructions seen in example (3), similar to what can be seen in English *wh*-constructions where A'-movement of a *wh*-phrase is only allowed once the C head *that* is deleted (Chomsky 2013, 2015).

(24) a. Who$_i$ did you think [t$_i$ drew the picture on the board]?
b. *Who did you think [that t$_i$ drew the picture on the board]?

As Chomsky (2013, 2015) suggests, deletion of the overt C head *that* in example (24) weakens the phase and thus *wh*-phrases can move to the [Spec, CP] position in the matrix clause. I temporarily adopt this account of C deletion for the subject-to-subject hyper-raising at hand. In example (3), which is repeated in (25) below, I assume that the IC head *je* is deleted. This weakens the embedded CP phase boundary and as a result, the matrix T probe can look inside and raise the embedded nominal to matrix [Spec, TP] for it to satisfy the uD/uEPP feature on the matrix T, licensing what is known as hyper-raising in the language.

(25) **Oroni**$_i$ mon-e hO-y [(*je) **t**$_i$ gotokal skul-e eS-ech-il-o]
oroni.NOM mind-LOC be-HAB.3 IC yesterday school-LOC come-PFV-PST-3
'Oroni seems to have come to school yesterday.'

But this idea of C-deletion inside the embedded clause does not capture what happens in Bangla subject hyper-raising correctly. According to what Chomsky (2015) suggests, it can be inferred that in English *wh*-constructions, the matrix verb (such as *think, wonder*, etc.) selects a TP when the C head is syntactically deleted in the derivation. But this creates several issues for the hyper-raising constructions in Bangla seen in example (25) above. As shown in section 3.3, the embedded clause unfurls a CP projection regardless of the C head being present or absent inside it. So how do we exactly answer what happens in Bangla hyper-raising? I try to give an answer for it next.

4.2.2 Phase cancellation, external pair-merge, and hyper-raising in Bangla

Obata (2018) presents multiple issues that arise with the idea of C-deletion (cf. Chomsky 2013, 2015) to explain *that*-trace effect in English *wh*-constructions. She shows that if the C head is deleted in the syntax, it creates doubt on factors like *selection*, *legibility condition*, and *recoverability condition*[13].

It has already been discussed what happens if we assume that the matrix verb selects a TP, not a CP in Bangla (see section 3.3), giving us enough evidence how the 'selection condition' will be violated in Bangla hyper-raising constructions if the C head is deleted. On the other hand, the deleted C needs to be legible at LF, which cannot be supported if C is syntactically deleted as suggested by Chomsky (2013), creating issues with the 'legibility condition' both in English *wh*-constructions in example (24) as well as in the hyper-raising constructions in Bangla (see example (25)). Lastly, the deleted C in both constructions is never recoverable which is also in violation of the 'recoverability condition'.

[13]Obata (2018) shows both empirical and theoretical implications that underlie the assumption that C is syntactically deleted in English *wh*-constructions. The reader is suggested to look at Obata (2018) for a detailed discussion on the topic.

Obata (2018) gives a solution for these issues. Following Epstein et al. (2016), she suggests **external pair-merge of C to T**[14] for *that*-trace effect in English *wh*-constructions which cancels the phase boundary and licenses the movement of the embedded *wh*-phrase. This does not violate any of the stipulations mentioned above and gives us a neater and more unifying account for *that*-trace effect, restricting syntactic operations to Merge only. I summarize this idea in (26).

(26) **Phase cancellation through external pair-merge**: Under certain conditions, a phase CP is canceled iff the embedded C is externally pair-merged with the embedded T, licensing movements of the embedded nominal out of such phase.

For our hyper-raising cases in Bangla, I adopt this idea by extending the external pair-merge of C to T for the subject movement in examples like (25). In Bangla hyper-raising constructions, as we can see, the IC *je* sounds ungrammatical once raising occurs. Similar to English bridge verbs in *wh*-constructions, Bangla *mone hOy* ('seem'/ 'feel'/ 'think') in all environments (hyper-raising or non-hyper-raising) also takes a CP complement always (see example (14) and (15) for the non-raising counterparts of the matrix verb). I use labeling to show what happens in the derivation of a hyper-raising example such as (25) in Bangla. The derivation is as follows.

(27) Derivation of (25) *Oroni*$_{\text{i}}$ *mone hOy* [(****je***) t_{i} *gotokal skule eSechilo*], following Obata (2018):
[$_{\gamma}$ *Oroni*$_{\text{i}}$ *mone hOy* [$_{\alpha}$ t_i [$_{\beta}$ *gotokal skule eSechilo*]]]
Step 1: [$_{\alpha}$ *Oroni* <$T_{u\phi}$,C> [$_{\beta}$ t_{Oroni} … *eSechilo*]
(i) **External pair-merge** of <T,C> (ordered pair): C is affixed with T and this affixed C becomes invisible to further syntactic operations. The composite <T,C> becomes the new phase-head and all ϕ-features are transferred to T.
(ii) Internal pair-merge of β with the ordered pair <T, C>
(iii) NP *Oroni* raises from the domain of <T,C> (i.e., β) to α (in the Spec position of <T, C>).
Step 2: [$_{<\phi,\phi>}$ *Oroni* <$T_{u\phi}$,C> [$_{\beta}$ t_{Oroni} … *eSechilo*]
Labeling: α is labeled as <ϕ,ϕ> due to feature matching.
Step 3: [$_{<\phi,\phi>}$ *Oroni* <T,C>]
The domain of the new phase-head composite <T,C>, β, gets transferred to the interfaces.
Step 4: [$_{\gamma}$ [*mone hOy* [$_{<\phi,\phi>}$ *Oroni* <T,C>]]
The embedded nominal inside <ϕ,ϕ> is available for raising due to the composite <T,C> being the new phase-head (*Oroni* is in the phase edge position which is now visible to the matrix T probe).
Step 5: [$_{\gamma}$ *Oroni*$_i$ [*mone hOy* [$_{<\phi,\phi>}$ t_{i} <T,C>]]]
The embedded nominal raises to the matrix clause.

[14]External pair-merge is a 'structure-building operation' (cf. Epstein et al. 2016) where any combination of phrases or heads are adjoined together pre-syntactically.

The above step-by-step derivation through labeling gives us a clear picture of what happens in Bangla hyper-raising instances. Thus, not C deletion, but rather external pair-merge of <T,C> explains how the phase boundary becomes opaque for an embedded nominal to raise out of it, resulting in a subject-to-subject movement in examples like (25).

4.3 A conjecture about the matrix verb *mone hOy*

A puzzle still remains regarding the nature of the matrix predicate that is seen in Bangla hyper-raising constructions (see example (3)). I try to propose a tentative solution to this issue at hand.

One thing that has been argued to play a crucial role for hyper-raising across all the languages is the type of predicate that gets selected in the matrix clause. It has been shown that in raising and hyper-raising both, A-movement of the embedded nominal occurs when there is a perception verb like *seem*, *appear*, etc., in the matrix clause.

There has also been much discussion about what type of information a matrix verb must carry for it to allow hyper-raising in the language (Lee & Yip 2024; Greeson 2025, *among others*). According to Greeson (2025), it is the 'thematic properties' of the matrix perception verb that decides which predicates will allow hyper-raising and which will not. He argues that when the matrix verb gives a particular 'P(ERCEPTUAL)-SOURCE θ-role' to its external argument in the matrix clause, hyper-raising is blocked across the finite CP boundary. But when the verb fails to give this 'P(ERCEPTUAL)-SOURCE θ-role', hyper-raising can occur. Greeson (2025)'s analysis of the matrix verb is based on the evidentiality associated with the matrix verb. He follows Lee & Yip (2024)'s argument of bifurcating the raising predicates into two types according to what it 'encodes'. Lee & Yip (2024) state that in Vietnamese and Cantonese, if the matrix predicate 'encodes' indirect evidence, hyper-raising may occur. But when the matrix predicate 'encodes' direct evidence, the subject from the embedded CP fails to (hyper-)raise to the matrix subject position ('The Subject-Evidentiality Correlation'; cf. Lee & Yip 2024).

This direct-indirect bifurcation (cf. Lee & Yip 2024; Greeson 2025) which has been imposed on the matrix verb of hyper-raising and their non-hyper-raising counterparts does not really work for the matrix verbs in Bangla. As shown in section 2.3, the information carried by the two verbs in the two sets of examples (see example (8a) and (9)) is completely different. The verb in (8a), I suggest is what we can call the raising predicate in Bangla as opposed to the verb in example (9) which fails to license hyper-raising of the embedded nominal across clause-boundary.

Following Greeson (2025)'s analysis partially, I suggest that the raising predicate in example (8a) also lacks the ability to give 'P-SOURCE θ-role' to the raised NP in a hyper-raising example. But in Bangla, where the matrix verb *mone hOy* ('seem') in example (8a) is restricted in its tense morphology and the embedded clause also lacks an overt IC head *je*, this inability to give any θ-role is not due to 'indirect' or 'direct evidence' associated with the verbs in example (8a) and (9), but because the verb in (8a) has been grammaticalized[15]

[15]The grammaticalization incline of the verb *mone hOy* ('seem') as an evidential phrase needs to examined

as an *evidential phrase* in the language, frozen in its form. The other one still works as a canonical verb, being able to give a 'P-SOURCE θ-role' to its arguments as well as carrying various tense morphology on it. I suggest that the default agreement on the matrix predicate seen in examples like (3) which establishes a non-agreeing pattern between the raised subject and the matrix verb is also due to this nature of the raising predicate.

If the assumption that the matrix predicate *mone hOy* ('seem' or 'think' or 'feel') being two different forms (one an evidential phrase and the other a canonical verb) is correct, then this duality of the two forms makes it easier to identify which predicates will allow hyper-raising and which will not. A deeper understanding of this duality of *mone hOy* ('seem' or 'think' or 'feel') needs to be pursued separately and deserves further discussion.

5 Conclusion

In this paper, it has been shown that Bangla does have subject-to-subject hyper-raising, giving evidence through several tests from the language like island constraints, quantifier raising, idioms, lack of WCO effects and so on. It is further proven that the embedded clause is a finite CP and not anything smaller than that. Although all this evidence proves conclusively that the movement seen in examples like (3) in Bangla is an instance of true hyper-raising, we see that there is a crucial difference between Bangla hyper-raising and the ones seen in other languages. The absence of a non-overt or phonologically null complementizer head (IC *je*) inside the Bangla hyper-raising embedded clause is similar to what is observed in a *wh*-construction in English. The analysis follows Obata (2018) to explain this 'apparent' absence of C head in Bangla hyper-raising constructions and show through labeling that the external pair merge of C to T will give us the solution.

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more thoroughly. But for our current purposes, we do not delve too deep into this and assume that the two verbs are fundamentally distinct where one allows hyper-raising and the other does not. See De Haan (2007) for grammaticalization of raising verbs in languages like English, German, and Dutch.

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