Sluicing in Bangla: A survey

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Abstract

This paper surveys sluicing in Bangla, a language often described as *Wh-in-situ* and head-final. While Bangla typically lacks overt *Wh*-fronting, *Wh*-movement occurs in certain contexts, particularly in multi-clause structures. This paper examines how such movement influences sluicing, where a *Wh*-phrase appears with elliptical material in interrogative sentences. This paper describes that Bangla sluicing can be explained through two main approaches: copula-based structures and TP ellipsis. The copula-based analysis suggests that sluices involve a null pronoun and an unexpressed copula, reflecting Bangla's characteristic lack of overt copulas in present-tense sentences. On the other hand, TP ellipsis involves the deletion of material after a *Wh*-phrase moves to a higher position in the clause. The paper also investigates two linguistic patterns in Bangla sluicing: case marking and number agreement. Data presented in this paper demonstrates that sluicing is a syntactic property in Bangla, with distinct patterns compared to languages like English.

1. Introduction

Bangla language has commonly been described as dominantly head final and SOV in word order. The SOV structure of Bangla, which is one of the six major global word orders, is used by approximately 41.6% of the world's languages.[1] As also emphasized in local Bangla scholarship,[2] the SOV order in Bangla forms a core part of its grammatical identity. Historically, however, the language has exhibited both stability in its head-final alignment and flexibility under external influences such as English.

The general hypothesis regarding head initial and head final languages is as follows:

1)
   a. Head-initial languages tend to have overt *Wh*-movement. (e.g. English, Bulgarian, Dagaare)
   b. Head-final languages tend to have *Wh-in-situ*. (e.g. Japanese, Chinese, Navajo)

Following is an example of Japanese as *Wh-in-situ* language:

   a. Ken-ga nani-o tabe-ta no?
      Ken-Nom what-Acc eat-Pst C

      'What did Ken eat?'   (Source: Hiraiwa, upon request)

Bangla has also been referred to as *Wh-in-situ* language, due to lack of obvious *Wh* fronting. For example:

   a. Shimul ki kheye-che?

Shimul what eat-pst
What did Shimul eat?
b. Shimul kon biota porlo?
Shimul which book read?
"Which book did Shimul read?"

At the same time, it is important to note that the flexibility of Wh-elements in Bangla is often seen as standing between English and Sanskrit traditions: unlike English, sentence-initial Wh-fronting is not always licensed, while unlike Sanskrit, Wh-elements do not always remain fixed in situ. This intermediate pattern reflects the hybrid influences shaping Bangla word order historically.[3]

But it is also noticed that overt movement of *Wh*-elements does in fact occur to the C-domain. According to Simpson and Bhattacharya,[4] such movement is suggested to be frequently disguised by the higher occurrence of subjects in clause-initial topic position in Bangla but becomes clearly observable in multi-clause structures where a *Wh*-element from an embedded clause is interpreted with interrogative scope in a higher clause. In Bangla, for example, it is ungrammatical for the *Wh*-phrase *ke* 'who' to remain 'in situ' in the embedded clause, as in (a), and overt movement into the matrix clause is necessary to license the *wh*-phrase. This can be achieved either via raising of simply the *Wh*-phrase, as in (b), or via pied piping of the entire clause containing *ke*, as in (c).

2)
a. Jon bhabcho [ke chole geche].
   John think who leave gone?
b. Jon ke_i bhabcho [t_i cole geche].
   John who think leave gone?
c. Jon [ke cole geche]$_i$ bhabcho t_i?
   John who leave gone think?

'Who does John think left?' (From Bhattacharya and Simpson[5])

This data naturally raises the issue of whether sluicing in Bangla is most plausibly attributed to instances of *Wh*-movement and remnant deletion, or perhaps some other kind of process of ellipsis. But this paper does not intend to find out the answer to this issue. Rather it will consider this wh-movement as changing of word order (which is allowed in Bangla) and try to explore the sluicing patterns in Bangla as a *Wh-in-situ* language. It will also try to find out the nature of sluicing in Bangla and whether it supports some general hypotheses of sluicing, in particular, the hypotheses of sluicing regarding case marking and number agreement.

Sentences in (3) present two examples of sluicing in Bangla, which confirms that sluicing is a property of this language.

3)
a. Karim-er basha-te keu ek-ta boi churi-koreche, kintu ami jani na ke
   Karim-Gen house-in someone one book stole, but I know not who
   "Someone stole a book in Karim's house, but I don't know who."
b. Karim kichu kinechilo, kintu ami jani na ki
   Karim something bought but I know not what
   "Karim bought something, but I don't know what.

The general analysis of sluicing argued for in a considerable number of works [6,7] is the hypothesis that *Wh*-movement first promotes the *Wh*-phrase from within the clause to a clause-peripheral position and then is followed by deletion of the clausal residue, i.e. deletion of the largest constituent present in the clause which does not contain the *Wh*-phrase. In the case of English, the suggestion is that movement of the *Wh*-phrase to SpecCP is followed by ellipsis of the IP/TP complement to C as in the following example:

Mita just married someone, but I don't know [CP who [TP she just married who]].

But data in (3) suggests that Bangla sluicing may be produced by the reduction of a clause built around a copula. One probable analysis is that there was a clause containing a copula, a pronoun and the *Wh*-phrase. The copulas and the pronouns are probably phonetically not pronounced or empty, as in Bangla copula is regularly not expressed in any overt form in the present tense and bangle has a null pronoun in general. This resonates with Roy[2], who, drawing on Chomskyan deep/surface structure theory, argued that while a copula may not appear in the surface structure (*Ram bhalo chele* 'Ram good boy'), it is nevertheless present in the deep structure (*Ram hoi bhalo chele* 'Ram is a good boy'). Such an approach aligns with the idea that sluicing in Bangla can be understood as the ellipsis of a copula clause.

Unlike English, subject-complement constructions such as *Khaled is very naughty,* where a copula verb is used in order to link noun phrase and complement, neither Standard Bengali nor dialects require copula verb ("zero-verb").

For example:

a. Ini [Ø] amar ma
   She [is] my mother
b. bimal [Ø] khub dushtu.
   Bimal [is] very naughty
c. Nozrul [Ø] bangali.
   Nozrul [is] Bengali.
d. Ishkul   [Ø]   bondo.
   [The] school [is] closed.   (Rasinger[8])

So, based on this phenomenon, another example of Bangla sluicing, and its underlying form is as follows:

4)
a. Reza   kichu   kineche.
   Reza-NOM   something-ACC   bought
   "Reza bought something".
b. Ami   jani   na [se   ta ki].
   I know not [(pro) (be) what]
   I do not know what (it is).

This analysis is supported by the analysis of sluicing in Japanese, another *Wh-in-situ* language, where the *Wh*-phrase occurs in a clause with a null pronominal subject and a null copula as the main verbal element:

5)
a. Mary-ga   nanika-o   katta.
   Mary-NOM   something-ACC   bought
   'Mary bought something.'
b. Boku-wa [_ nani(-o)   (dearu) ka] wakaranai
   I-TOP   pro what-ACC be Q   do-not-know
   'I don't know what (it is).'   (from Takahashi[9])

Another possible explanation for sluicing in Bangla (data in 3) is the occurrence of TP ellipsis deleting the phonetic matrix of the pronoun and copula following *Wh*-movement to SpecCP. So, based on this analysis, the underlying forms of the sluiced sentence in 3 (a) and 3 (b) probably are:

6)
a. Karim-er   basha-te   keu   ek-ta boi   churi-koreche, kintu ami jani   na
   Karim-Gen house-in someone one book stole,   but   I   know not   ke   se (hoy).
   [CP who [TP it is who]].

   "Someone stole a book in Karim's house, but I don't know who."
b. Karim   kichu   kinechilo, kintu ami jani na ki se ta
   Karim   something bought   but   I   know not [CP what [TP it   is what].
   "Karim bought something, but I don't know what".

The Bangla *Wh* word *ki* 'what' in (b) can function as both object and subject and so could be occur either as an object form in (b), produced by the deletion of an underlying structure reflecting that of the clause containing *kichu* 'something', or *ki* could perhaps occur as a subject-form associated with a null copula. As in Bangla the copula is regularly not expressed in any overt form in the present tense, so (b) also allow for an analysis as a null copula structure.

2. Historical Context of Copula and Word Order in Bangla

The history of Bengali prose provides additional context. In the early 19th century, Christian missionaries introduced prose structures influenced by English SVO, and writers such as Raja Rammohan Roy sometimes employed overt copula in present tense contexts (e.g., *iha subanta prakaraniyo hoi*)[10]. These shifts reveal that Bangla's SOV system and copula use have not been static but have interacted with stylistic and cultural forces. Although literary examples such as 17th-century Vaishnava Tarza poetry demonstrate highly reduced copula usage (*Tumi ki? Ami jib. Tumi kon jib?*)[2] these remain outside the syntactic focus of this paper.

2.1 Case agreement

Hypothesis about case-agreement in sluicing: *Wh*-phrases in sluicing should behave subjects or objects of matrix clauses syntactically.

The use of *Wh* expressions other than *ki* in Bangla is interesting. The equivalent of 'who' occurs in distinct nominative, accusative, genitive and dative plural forms, respectively *ke, kake, kar* and *kader*. Such forms furthermore often occur in sluices as illustrated in (7-9):

7)

    a. ami Sunlam je keu   Rani-ke bokeche,   kintu ami jani   na ke
       I heard that someone Rani-ACC scolded   but I know not whoNOM
       'I heard that someone scolded Mini, but I don't know who'.

8)

    b. ami Sunlam je Raz kau-ke kotha-dieche, kintu ami jani   na kake
       I heard   that Raz someoneACC promised   but I   know not whomACC
       'I heard that Raz married someone, but I don't know who.'

9)

    c. karo rag   hoeche, kintu ami jani   na kar
       someone-GEN anger done but I know not who-GEN
       'Someone is angry, but I don't know who.'

In all the examples here, the patterns appear to show "case-matching" and marking of the *Wh*-phrase with a case form which also occurs on the indefinite antecedent of the *Wh*-phrase. In (7), if in place of *ke*-NOM it was *kake*-ACC, that would be ungrammatical. For example:

    a. ami Sunlam je keu   Rani-ke bokeche,   kintu ami jani   na *kake
       I heard   that someone rani-ACC scolded   but   I   know not *whom-ACC
       'I heard that someone scolded Mini, but I don't know who'.

In (8), it would be ungrammatical in Bangla if in place of *kake*-ACC it was *ke*-NOM. For example:

    b. ami Sunlam je Raz kau-ke kotha-dieche, kintu ami jani   na *ke
       I heard   that Raz someoneACC promised but I know not * whoNOM
       'I heard that Raz married someone, but I don't know who.'

And (9) would be ungrammatical if it was *ke*-NOM in place of *kar*-GEN. For example:

    c. karo rag   hoeche, kintu ami jani na *ke
       someone-GEN anger done   but   I   know not *who-NOM
       'Someone is angry, but I don't know who.'

2.2 Number agreement

Hypothesis regarding number agreement in sluicing is that: Sluicing always triggers singular agreement.

For example:

    a. Which problems (NP plural) are solvable is /*are not clear.
    b. Some of these problems are solvable, but which problems is / *are not obvious.

The following examples show that number agreement is also evident in Bengali sluicing:

10)

    a. Kon somossha-gulo somadhanjoggo, ta / *segulo porishkar na.
       Which problems (plural) solvable that(is)/ *those (*are) clear not.
       "Which problems are solvable is not clear."

11)

    b. Ei somossha-gulor   kichu somadhanjoggo kintu kon   somoshha ta theses problems (out of)
       some solvable but   which problem   that (is)
       /*segulo sposto na
       *those obvious not.

"Some of these problems are solvable but which problem is not obvious."

In the main clause of sentences (10) and (11), "Kon somoshagulo (which problems)" and "somossha gulor kichu (some of these problems)" are plural but they are triggering singular agreement, thus supporting hypothesis regarding number agreement in sluicing.

3. Conclusion

The aim of the paper was to conduct a survey of sluicing in Bangla, and it has been demonstrated with examples that Sluicing is a property in Bangla. It is evident from the examples that Sluicing in Bangla has a different syntactic derivation than English. It was argued that, since Bangla is a *Wh-in-situ* language, a Copula-based analysis- already anticipated in Roy's[2] deep vs. surface structure accounts- supports the sluicing pattern in Bangla. It has also been demonstrated that Case marking and Number agreement are evident in Bengali sluicing. As the data also show that Bangla has some wh-movement, it would be interesting to determine if sluicing in Bangla also requires *Wh*-movement; however, this was not within the scope of this paper. Further investigation is required to determine if Bangla permits sluicing formed by overt *Wh*-movement, and how historical influences on Bengali syntax may have contributed to its present-day flexibility.

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