"-Te/-e" marker as a plural in Bangla

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ABSTRACT
The current work deals with the morphological marker -Te/-e in Bangla. It analyzes the form, function, and structural position of the marker and proposes that, among various other roles, this marker yields the interpretation of a plural marker in restricted contexts. This study further claims that along with -raa, -Te is another associative plural in the language found with conjoined DPs with added ‘collective’ or ‘together’ semantics. This claim becomes interesting in the backdrop of Bangla being a classifier language. This novel proposal deconstructs the dominant thesis regarding the absence of plural in a numeral classifier language. It also suggests that the definition of the plural is much more varied than what has been discussed in the literature.

1 Introduction

Bangla, along with other Eastern Indo-Aryan languages, is a nominative-accusative language with person agreement and no number-gender agreement. Bangla nominals do not exhibit a canonical number marker, as seen in the examples below.

(1) (a) chhele (b) goru (c) boi
boy cow book
‘boy/ boys’ ‘cow/ cows’ ‘book/books’

In the absence of any canonical number marker, Bangla uses numeral classifiers to denote the distinction between singular and plural (Dasgupta 1983, Bhattacharya 1999, Dayal 2012 a.o.). However, recent studies claim the existence of non-canonical plural in Bangla- -raa and gulo (Chácon, 2011; Biswas, 2013; Dayal, 2014). These two markers are used to express plurality in contexts without numeral. The paper provides novel empirical evidence that shows that the polyfunctional marker -Te/-e acts as a plural in Bangla. It gives a non-singular, collective interpretation in restricted contexts. -Te/-e comes with conjoined DPs to show plurality and makes a distinction between canonical co-ordinate phrases in the language. This proposal adds to the list of literature that supports the existence of plural in classifier languages. It also suggests that the definition of the plural is much more varied than what has been discussed in the literature.
Section 2 introduces the polyfunctional nature of -Te. Section 3 establishes that -Te expresses plural interpretation in restrictive contexts. However, it also establishes that -Te does not fit anywhere in Wiltschko’s (2008, 2021) number cline. Section 4 shows the overlap between -raa and -Te. Section 5 gives empirical evidence for the semantics of -Te. Section 6 proposes the structural position of the -Te marker. Section 7 concludes the study.

2 -Te as a multifunctional marker

This section shows how -Te is a multifunctional morpheme in Bangla, which has been the focus of discussion in the literature for a long. The marker -Te fulfills different functions in Bangla, such as locative (2), instrumental (3), or subject marker (4). In (2), it attaches to bombe, and in (3), it attaches to chhuri.

(2) ami bombe-Te thak-i
    I bombay-LOC stay.PRS.HAB-1P
    ‘I stay in Bombay’

(3) ama-r angul chhuri-Te kete geche
    I-GEN finger knife-INS cut be.PERF-3P
    ‘My finger got cut by knife’

This marker can not only appear with 3rd person DPs, but also with 1st and 2nd person pronouns (see below). Presently, they are primarily seen in poetic uses, but they are infrequent.

(4) ami nei ama-Te
    I be.NEG I-LOC
    ‘I am not in me’

(5) toma-Te ami mugdho
    you-LOC I impress
    ‘I am impressed with you’

(6) dube achi Toma-Te
    drown be.1P you-LOC
    ‘I am drowned in you’
Further, this -Te marker can also be seen on subjects as a subject marker irrespective of the verb types. For example, in (7-8), -Te comes with the transitive verb ‘cross’ and unaccusative verb ‘fall’ respectively. However, note that this marker is optional in such contexts. It means that the structures are not ungrammatical in -Te’s absence. Additionally, the agreement system remains obligatorily similar both in the presence and absence of the marker.

(7) sita-(te) lokkhonrekha par koreche
    Sita-s lakshman-border cross do-PERF-3p
    ‘Sita crossed the Lakshmanrekha’

(8) sita-(te) aj khad-e pore g-ech-e
    Sita-s today cliff-LOC fall-NF go-PERF-3p
    ‘Sita fell on the cliff’

Now, in the following sections, we concentrate on -Te acting as a marker imparting plural sense in restricted contexts.

3 -Te As a Plural Marker

Bangla presents a typical example of a numeral classifier language with no existence of canonical inflectional plural (Dasgupta 1983, Bhattacharya 1999, 2000, 2001, Dayal 2012 inter alia). The plurality of a nominal is expressed in terms of a numeral and a classifier (9).

(9) (a) paanch-ta chhele    (b) paanch-ta goru    (c) paanch-ta boi
    Five-cl boy         five-cl cow         five-cl book
    ‘Three boys’    ‘Three cows’    ‘Three books’

Recent studies, however, contradict the above claim and present evidence for the presence of non-canonical plurals in Bangla- raa and gulo (Chácon 2011, Biswas 2013, Dayal 2014, Dutta, Kumari & Chandra 2021). Without a numeral, these two markers are used to express plurality (10-11). While -raa is acknowledged as an associative plural (Chácon 2011, Biswas 2013), gulo is considered a plural marker (Biswas 2013, Dutta, Kumari & Chandra 2021). See bellow for illustration.

(10) (a) meye     (b) meye-ra
    girl     girl-raa
‘(A) girl’  ‘Girls’

(11)  (a) chhagol  (b) chhagol-gulo  
goat  goat-GULO  
‘(A) goat’  ‘Goats’

Along with these non-canonical plurals, we claim that Bangla has an optional marker -Te/-e, that yields non-singular readings in certain environments.

3.1 Properties of -Te/e as a plural

In specific contexts, the marker shows non-singular meaning with extra semantics. It is optional in nature but quite robustly used in the language. Some of the significant properties are discussed below:

The marker -Te yields a together and intense meaning involving two active participants/groups.

(12) montri-(Te)  montri-(Te)  kolakuli kor-ch-e  
minister-TE  minister-TE  hug  do-prog-3p  
‘Two (groups of) ministers are hugging each other’

(13) [baba-ma]-(-Te)  khub  jhogra kor-e  
father-mother-TE  very  quarrel  do-3p.prs.hab  
‘Father and mother argue a lot (among each other)’

The marker is limited to two nominals. The marker disappears if the number of arguments is more than two, as seen in (14). It again does not impart the plural sense when attached to a single DP as in (15).

(14) *ma  baba  chhele-Te  khub  jhogra kor-e  
mother  father  boy-TE  very  argue  do-3p.prs.hab  
‘Mother, father, and son argue a lot (among each other)’

(15) baba-Te  khub  jhogra kor-e  
father-TE  very  argue  do-3p.prs.hab  
‘Father argues a lot’

Another characteristic of -Te is that it strictly comes with DPs and NPs, as seen in the examples above, and not with AdjP (see 16), VP (see 17), IP (see 18) or CP (see 19).
In examples (16-19) above, we see that -Te is seen in very restricted contexts and participates in c-selection.

The next characteristic is that it is not found in all types of plural arguments. It is restricted only to the external argument in the case of transitives and unergatives and appears only in internal arguments in unaccusatives. Hence, in a purely nominative-accusative language such as Bangla, it appears only on nominative subjects. For example,

(20) gari-Te lori-Te dhakka lag-l-o
    car-TE lorry-TE clash hurt-PST-3P
    ‘The car and the lorry clashed’

(21) * crane-ti gari-Te lori-Te dhakka lag-l-o/ lag-a-l-o
    crane-CL car-TE lorry-TE clash hurt-PST-3P/hurt-PST-CAUS-3P
    ‘The crane crashed the car and lorry’

In (20), the -Te marker is only seen on the nominative subject gari lori. However, it is not seen on the accusative DP in (21).

Interestingly, the variant of this marker -e is optionally found in restricted domains in a related language, Agartala Bangla (22). Agartala Bangla is another Eastern Indo-Aryan language in contact with the Bodo-Garo language family.

(22) sasuri-(e) bou-(e) khub kaijja kor-s-e
Mother-in-law-e daughter-in-law-e very quarrel do-prs.perf-3p
‘The mother-in-law and the daughter-in-law quarrelled with each other’

In (22), the -e marker exhibits an intense involvement of both the subjects, collectively, in the event. The collective interpretation is unavailable in the absence of the marker -e. Such -e marked plural subjects are also found in Bangla when the subject ends with a consonantal sound without changing meaning. For example, similar to (22), we see the -e in (23).

(23) saikel-e bus-e dhakka lag-l-o
cycle-e bus-e clash hurt-pst-3p
‘The cycle and the bus clashed’

The distribution of -Te is clear from this data set. Let us now turn to the next section, where we assess the nature of the plural -Te theoretically.

3.2 What type of Plural -Te is?

The -Te marker plays a role in exhibiting non-singular collective meanings in Bangla. Therefore, it falls under the definition of plurals. Let us now verify what type of plural it is. In other words, we ask whether it is a syntactic ‘head plural’ similar to the English canonical plural or a ‘modifying plural’ (in terms of Wiltschko 2008, 2021). Below, we apply a few of the major diagnostics from Wiltschko (ibid.) to find out the status of -Te as a plural.

I. Obligatory plural marking: A head plural is obligatory in nature. The head plural needs to be present obligatorily in the plural context. In the current context, the marker is optional, unlike a head plural.

(24) (a) dui montri-Te alochona kor-l-o
two minister-TE discuss do-pst-3p
‘Two ministers discussed (this)’

(b) dui montri alochona kor-l-o
two minister discuss do-pst-3p
‘Two ministers discussed (this)’

II. Obligatory plural agreement: Bangla does not show number agreement.

III. Plural inside compounds: -Te can occur inside compounds, unlike inflection (with subtle semantic change).
Compound -Te marking

(a) raat-din  raate-Te dine-Te
   raat-din  raate-din
   day-night  day-TE-night-TE
   ‘Entire day’  ‘At day and at night’

(b) ma-baba  ma-Te  baba-Te
   ma-baba  ma-TE  baba-TE
   mother-father  mother-TE  father-TE
   ‘Parents’  ‘Mother and father’

IV. Inside a derivational morphology: Similar to inflectional marker, it does not occur inside derivation

(26) Root> Derivation -Te marking

(a) din> doinik  *doinike-Te
   din> daily  daily-TE

(b) pita> poitrik  * poitrik-Te
   pita> paternal  paternal-TE

Most of these diagnostics thus suggest that -Te is structurally a ‘non-inflectional’ plural marker.

It is to be noted that Wiltschko (2008, 2021) has suggested that inflectionality and headship may not have one-to-one correspondence. Although inflectional markers are mostly located on syntactic heads, there are no grammar-internal restrictions for non-inflectional plurals not to be on syntactic heads. Further, no restriction exists on the type of syntactic head that plural can merge at- #, D, n. According to Wiltschko, the non-canonical plural can merge at any head other than the canonical Num head as seen in (27).

(27)
Let us now analyze if 

3.2.1 -Te as a plural head or a modifying plural?

This section concentrates on analysing whether the -Te is merged at any other heads, as suggested in (27), or whether it merges as a modifying plural adjunct to any of these heads. Below, we mention some diagnostics for the same.

I. -Te not a D-head

There is no selectional restriction on the definiteness based on the appearance of this marker. Its presence does not necessarily render definiteness. In the following example, the DP (‘dogs and cats’) renders a generic meaning and not a definite one.

(28) …kukur-berale-Te ento kheye ne-b-e
  dog-cat-TE leftover eat take-FUT-3P

‘Dogs and cats will eat the leftovers’

This suggests that -Te is not a D head.

II. -Te not a Num head

The -Te marker is not a number head. It is optional and does not render any obligatory plural agreement.

(29) montri-(Te) montri-(Te) kolakuli kor-ch-e
  minister-TE minister-TE hug do-PROG-3P

‘Two (groups) ministers are hugging each other’
Further, it can co-occur with a productive plural *gulo*, defying the headship quality.

(30) *kukur-gulo-(Te) khub bhab*
    dog-*GULO-TE* very bond
    ‘(The) dogs have good bonding’

III. *-Te not a Cl head*

Obeying ‘split Num-hypothesis,’ let us check if the -*Te* marker is a classifier (Cl) head. The empirical data suggest it is not a regular classifier (31 a vs. b). It does not appear as a single constituent with the numeral. It does not select nominals based on some semantic attributes.

(31) a. *paanch jon chhele* b. *paanch -Te chhele*
    five CL boy five TE boy
    ‘Five boys’ ‘Five boys’

IV. *-Te not a n head*

Unlike n-plurals, it is neither lexically attached to any idiosyncratic *n*-roots nor acts as a nominalizer (Wiltschko 2008)

(32) Root> nominalized form Te marker
    *nach-* nacha *nach-Te* (not a nominalizer)
    dance (v.)> Dancing (Ger.)

The tests show that the -*Te* marker has no head-like qualities. Therefore, we claim it is a modifying plural that (most probably) merges at root *n* as an adjunct with a ‘unifying’ or a ‘together’ meaning (see 33, extracted from Wiltschko 2021:191).

(33)

We consider it as a modifier to *n* -root because for two other reasons. It does not change
the category of the root into a plural when attached. It only attaches as adjuncts. It can co-occur with regular *gulo* plural (34), suggesting it is not a head plural.

(34) *kukur-gulo-Te*

  `dog-PL-TE`

  ‘Dogs’

We can, therefore, safely conclude that it is a modifying plural merging at *n*. However, the story gets complicated when we look deeper into (i) its interaction with the other plural marker *-raa*, and (ii) the restricted DP structures in which it appears.

4  **Associative plural -raa**

The *-raa* marker is an established plural in Bangla, better known as an associative plural (Chacón 2011, Biswas 2013). This plural marker differs from the other plural *gulo* in its distribution and semantics. The *gulo* can be added to any nominals, but *raa* can only appear with +human and animate nouns (in some contexts). When added to a nominal, while *gulo* yields a regular additive plural (35), the *-raa* yields an associative plural meaning (36). The associative semantics is clearer when attached to a proper noun (37).

(35)  

  a. *chhele*

  `boy`

  ‘(A) boy’

  b. *Chhele-gulo*

  `boy-GULO`

  ‘Boys’

(36)  

  a. *chhele*

  `boy`

  ‘(A) boy’

  b. *Chhele-raa*

  `boy-RAA`

  ‘(Association of) boys’

(37) *nita-raa*

  `nita-RAA`

  ‘Nitas’

(38) i. Nita and her associates/friends/family

   ii. * Multiple girls named Nita

(37) can have only one interpretation among (38 i- ii). When *-raa* appears with proper nouns, it gives out a collective meaning, as seen in (38i), and not the additive meaning (38ii).

Now, as the data set shows, *-raa* behaves differently from *gulo*, indicating that their structural positions are also different. The literature (Biswas 2013) claims that *-raa* has
some unique properties that suggest that this plural marker is not situated in any of the DP internal positions stated earlier. Instead, it is situated above DP (39).

(39)

Let us look at some of these characteristics with examples.

This associative marker can co-exist with a numeral classifier when the NP is fronted, as seen in (40).

(40) Chhele-raa du-jon chhele,
    boy-Raa two-CL
    ‘Two boys’

The -raa marker can also be associated with the nominal in the presence of an inverted quantifier. This suggests the NP has moved up to -raa across the DP quantifier. In (40), we see that NP has moved out of the universal quantifier, which takes DP complement. The agentive marker on the quantifier makes it more vivid that the -raa has to be above DP, where the NP moves crossing the stand-alone quantifier.

(41) chhele-raa sob-ai
    boy-Raa all-AGT
    ‘All of the boys’

Further, the proper names generated at D can also attach to -raa, strengthening the claim
that -raa is above DP.

The position of -raa is relevant in the present study because it indicates that the plural can be located in positions beyond what has been discussed in the current analysis, thereby broadening our understanding of the structure of plurals in Bangla. Now, this -raa marker has an interesting interaction with -Te. The two cannot co-exist. At the end of the previous section, it is shown that the -Te can co-occur with the regular plural gulo. But this is not true with -raa.

(42) (a) *meye-raa-Te
    girl-RAA-TE
    Intended: Girls

(b) *kukur-raa-Te
    dog-RAA-TE
    Intended: dogs

This complementarity indicates that the -raa and -Te might have the same structural positions. The argument favoring the -Te being above DP gets further justification from the semantics of the Te, as detailed below.

5 Evidence for -Te as a Plural marker with special ‘together’ Semantics

The data discussed till now suggests that the marker -Te expresses plural meaning but with a special semantics- non-singular ‘together’ semantics. This is similar to what has been suggested in the seminal work of Heycock & Zamparelli's (2005) about the ‘plurality-forming and.’ They show that the conjunction in English has the power not only to exhibit “joint reading” (43 a) but also “split reading” /plurality reading (43 b, c)

(43) (a) My uncle is short and stout
    (b) My uncle and auntie are in love
    (c) My uncle and auntie danced

We propose a similar ‘plurality reading’ arises when -Te is attached to the nominals. Let us go through some more examples from Bangla to justify our claim.

(44) (a) Rony-Te Ritu-Te khub prem
    roni-TE ritu-TE very love
    ‘Rony (and) Ritu are in love’

(b) Rony-Te Ritu-Te khub nach-l-o
    rony-TE ritu-TE very dance-PST-3P
    ‘Rony (and) Ritu danced a lot’

The ‘together’ meaning comes out well when we use the adverb overtly, and the meaning
remains the same (44b vs. 45)

(45) Rony aar Ritu mile khub nach-l-o
Rony and ritu together very dance-PST-3p
‘Rony and Ritu dance a lot’

Additionally, the rest of this section checks whether the -Te marker imparts collective or distributive interpretation. We check the distribution of the marker with distributive (46-47) and collective predicates (48-49). The choice of verbs is from Syrett and Musolino (2023).

(46) */? bachha-Te buro-Te ghum-achh-e
baby-TE old-men-TE sleep-PROG-3p
‘Babies and old men are sleeping’

(47) * Chhele-Te chhele-Te lomba ho-ech-e
boy-TE boy-TE tall be-PERF-3p
‘Boys have become tall’

(48) bachha-Te bachha-Te dhakkadhakki kor-ch-e
boy-TE boy-TE push do-PROG-3p
‘Boys are pushing each other’

(49) Chhele-Te chhele-Te jaega-ti ghir-e fel-ech-e
boy-TE boy-TE place-D surround-NF finish-PERF-3p
‘Boys have surrounded the place’

(50) Ama-Te toma-Te dekha ho-ech-il-o
I-TE you-TE meet be-PERF-PST-3p
‘You and I met’

The data suggest that the distributive predicates (46-47) do not allow -Te marker, whereas collective predicates (48-50) do. More examples of the presence of collective reading and absence of distributive reading in relation to -Te can be seen below:

(51) raja ar rani bera-te g-ech-e
Raja and rani visit-NF go-PERF-3p
‘Raja and Rani went for a visit’
(51) can have both interpretations (52-53).

(52) raja purulia-e bera-te g-ech-e ar rani
    raja purulia-LOC visit-NF go-PERF-3P and rani
    malda-e bera-te g-ech-e
    malda-LOC visit-NF go-PERF-3P
    ‘Raja went to Purulia and Rani went to Malda’

(53) raja ar rani eksathe bera-te g-ech-e
    raja and rani together visit-NF go-PERF-3P
    ‘Raja and Rani went (somewhere) together for a visit’

(54) raja-Te rani-Te bera-te gece
    Raja-TE rani-TE visit-NF go-PERF-3P
    ‘Raja and Rani went for a visit’

However, (54) can have only one interpretation of (53). Therefore, apart from imparting plurality, it gives a meaning of collectivity. This collective semantics is missing when canonical Bangla conjunctions are used.

Now, we test whether any quantificational restrictions are found with -Te. From the evidence below, we see that the ‘each’ meaning is disallowed in the case of ‘-Te’ (55) unless we attach an overt quantifier protyek, as seen in (56).

(55) chhele-Te meye-Te kaj-ta kor-ech-e
    boy-TE girl-TE work-D do-PERF-3P
    ‘Boys and girls have done the work’

(56) protyek chhele-Te meye-Te kaj-ta kor-ech-e
    each boy-TE girl-TE work-D do-PERF-3P
    ‘Each boy and each girl has done the work’

-Te also differs from the genitive counterpart in relation to the choice of verb/ light verb. For example, in (57), the genitive DP cannot appear with a verb like koreche, as seen in (55-56). Additionally, the sense of direct involvement of the DPs in the work is also missing.
Moreover, the marker -Te is also mutually exclusive with -raa marker in every context as already mentioned in section 4. Let us take another example:

(58) * chhele-ra-Te chhele-ra-Te
Boy-raa-te boy-raa-te

We see an overlap between the -raa and -Te marker in Bangla where both are not allowed together. This is a crucial diagnostic of the study. The following sub-section elaborates on this phenomenon.

6 Structure of the -Te

The above sections clearly show that -Te exclusively comes when there are two nominals in the structure. In other words, the plural sense of -Te is seen when there are strictly two DP. Therefore, it becomes crucial to check structures with two DPs. Co-ordinate structures are one such construction where two DPs come together.

Let us discuss the structure of the co-ordinate DPs as suggested in the literature. According to some accounts (Munn 1987, Larson 1900), the co-ordinate phrase (&P) is headed by the co-ordinate phrase &P.

(59)

On the contrary, some other accounts, such as Munn (1992, 1993), Boskovic and Franks (2000) among others, propose that the whole co-ordinate complex is not headed by the
co-ordinate phrase as seen in (60).

(60)

However, Bangla has dedicated co-ordinate markers- ebong, o, and aar. The -Te marker is not one of them. This is quite evident from the examples where -Te is attached to both the DPs individually in the phrase. Additionally -Te is inflectional (contra to derivational marker). Therefore, none of the structures (59-60) fit the bill.

We claim that although -Te involves two nominals, it has a different structure from what has been suggested for the co-ordinate DPs. -Te is a part of a flatter structure as commonly seen in the case of multiple adjuncts ( cf. Ross 1967, Jackendoff 1977) a.o. See (61-62) for illustration.

(61)

a. John, Mary and Bill
b. 

c. 

A piece of evidence for our claim comes from the structure itself. In a construction like (62), the first DP (baba) cannot c-commands the anaphor (tar), suggesting the absence of hierarchy needed for the c-command relation. However, such relation is fulfilled in a co-ordinate DP (63).
Now, let us see how this flatter structure of -Te fits in the Bangla DP structure. We have already suggested in sections 4 and 5 that raa and -Te are in complementary distribution with a similar kind of associative/collective plural meaning. Therefore, we claim that -Te and -raa occupy the same position above DP. Structurally, see 64.

The analysis and the structure show that -Te behaves like Bangla associative plural of -raa. Both of them give associative meaning. However, it is to be noted that -Te can only come exclusively with two DPs unlike -raa. The associative meaning of -Te is connected to collective participation of both the DPs in contrast to -raa which is more about group.

7 Conclusion

The present study suggests that the classifier language Bangla has a plural marker -Te, along with the established markers -raa and gulo. The support for the claim also comes from the diachronic literature (Chatterji, 1926, p.822) that suggests that the form -Te is derived in Bangla from the Old Indo-Aryan instrumental plural -tehi. It further suggests that this marker is similar to the associative plural marker -raa, yielding the meaning of an association. It differs from -raa in that it is restricted to two DPs. This marker also gives out the nuanced semantics of a ‘togetherness’ implying that the two arguments are actively and collectively participating in the action/event referred to by the verb. The study provides a novel claim since this marker has not yet been
studied as a plural marker in the literature. It thereby adds to the list of current claims in the literature that propose the presence of a variety of plurals in classifier languages.

References
