

Adnominal Distributive Numerals in Bangla

ISHANI GUHA¹, *Massachusetts Institute of Technology*

ABSTRACT

This paper provides an introduction to the adnominal distributive numerals in Bangla and their interpretations. Discussing the licensing conditions of the adnominal distributive numerals, the paper classifies them with distributive items that require overt or covert, syntactically commanding clause-mate pluralities as their antecedents. The paper also shows that the Bangla distributive numerals can distribute over contextually salient non-atomic covers of plurals.

1 Introduction

A particular class of indefinites in Bangla are designated to convey only distributive readings. These are equivalent to the reduplicated indefinites in Hungarian, which Farkas (1997) called the ‘dependent indefinites’.

The cardinality phrases in Bangla are marked by the presence of atomic or non-atomic classifiers on the indefinite determiners, as has been shown by Dayal (2012, 2014), Biswas (2016), among others. The class of distributive indefinites, that we are concerned about here, are formed by attaching a suffix to the determiner-classifier complex in the cardinality phrase. Compare the morphologically ‘plain’ cardinality phrases in (1) with the morphologically complex distributive cardinality phrase in (2). The distributive morphology is indicated by putting it inside a box throughout the paper.

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|-----|----|------------------|-----|----|--|
| (1) | a. | æk-jon ‘one’ | (2) | a. | æk-jon- kore ‘one’ |
| | b. | kœk-ʈa ‘a few’ | | b. | kœk-ʈa- kore ‘a few’ |
| | c. | œnek-gulo ‘many’ | | c. | œnek-gulo- kore ‘many’ |

In this paper, I only discuss the numeral indefinites with distributive morphology. Numeral determiners in Bangla are obligatorily (see Biswas (2016) for variations on this) attached with the atomic classifiers *-ʈa*, *-jon* etc. (3).

- (3) tin-ʈe-boi
three-Cl-book
‘three books’

Numerals like (3) are compatible with cumulative and collective interpretations. But these are strictly *dispreferred* for distributive interpretations. The sentence (4) can be interpreted to have the reading in *a*, *b*, *c*, but importantly, it cannot be interpreted to have the reading in *d*.

- (4) [du-jon-mee] [tin-ʈe-boi] poʀe-chilo
two-Cl-girl three-Cl-book read.Pfv-be.Past.3
‘Two girls read three books.’
- Each girl read at least one book and in total three books were read. (cumulative₁)
 - Each girl read the same three books. (cumulative₂)
 - A group of two girls read a group of three books. (collective) ... etc.
 - #Each girl read three possibly different books.

¹ishani.guha@gmail.com

The reading in *d* is obtained by a distributive numeral in the direct object position. Examples (5-a), (5-b) and (5-c) show three available morphological forms of an adnominal distributive numeral in Bangla.

- (5) a. [du-jon-mee] [tin-ṭe-kore]-boi poṛe-chilo
 two-Cl-girl three-Cl-do.Pfv-book read.Pfv-be.Past.3
- b. [du-jon-mee] [tin-ṭe-tin-ṭe]-boi poṛe-chilo
 two-Cl-girl three-Cl-three-Cl-book read.Pfv-be.Past.3
- c. [du-jon-mee] [tin-ṭe-tin-ṭe-kore]-boi poṛe-chilo
 two-Cl-girl three-Cl-three-Cl-do.Pfv-book read.Pfv-be.Past.3
 ‘Two girls each read three possibly different books.’

Thus in this paper I adopt the theoretical conceptualization that a distributive reading is a reading of a numeral having a ‘possibly different’ interpretation (see Brasoveanu (2011), Henderson (2014), Kuhn (2017), among others). A distributively interpreted numeral makes available several sets of individuals and requires that these sets of individuals are related to the members of another plural in the clause. For example, In (5) for each member of the plurality of two girls, there is a set of three books. The distributive numeral adds that these sets of three books are ‘possibly different’. Conventionally this interpretation is called the ‘covarying’ reading.

The paper focuses on the environments in which an adnominal distributive numeral with a covarying interpretation can be licensed. Section 2 briefly singles out adnominal distributive numerals as a special class and section 3 discusses the various aspects of licensing.

2 A brief introduction to the Adnominal morphology

The adnominal morphology on the numerals can be characterized by the syntactic tests of coordination and movement. Here I show examples with the suffix *-kore*, but the same distribution applies to reduplication as well.

- Coordination with another distributive numeral

- (6) Mee-ra du-ṭo-kore-boi ar tin-ṭe-kore-potrika kine-chilo
 girl-P1 two-Cl-do.Pfv-book and three-Cl-do.Pfv-magazine buy.Pfv-be.Past.3
 ‘The girls bought two books and three magazines each.’

- Coordination with another NP

- (7) Mee-ra boi-ṭa ar tin-ṭe-kore-potrika kine-chilo
 girl-P1 book-Cl and three-Cl-do.Pfv-magazine read.Pfv-be.Past.3
 ‘The girls bought the book and three magazines each.’

- Coordination and movement

- (8) [du-ṭo-kore]-boi ar tin-ṭe-kore-potrika]-o mee-ra šokole-i kinechilo
 two-Cl-do.Pfv-book and three-Cl-do.Pfv-magazine-ADD girl-P1 all-I buy.Pfv-be.Past.3
 ‘The girls all bought two books and three magazines each too.’

An interesting fact about the distributive numerals is that the suffix *-kore* is the perfective form of the verb *kor-* ‘do’. The verb *kor-* ‘do’ forms activity predicates by incorporating properties.

- (9) a. bagan kōra
garden do.Prt
'gardening'
- b. bōro kōra
big do.Prt
'bringing up'

Apart from the adnominal distributive numerals, there is a whole range of adverbial modifiers in Bangla that are formed with *-kore*. Arguably these are part of the secondary predicate formation strategy in the language, which usually uses a perfective verb form. These adverbial modifiers share at least two common properties: (a) they are sensitive to the presence of the 'doer' or the 'causer' in the verbal predication. Thus (10) with an anti-causative predicate is not compatible with a modifier formed with *-kore*; (b) they can only modify active predicates.

- (10) phuldani-ṭa du-ṭukro-hoe/*kore bheje gæche
vase-Cl two-piece-be.Pfv/do.Pfv break.Prt go.Pfv.be.Pres.3
'The vase broke into three pieces.'
- (11) Ritu oi għor-ṭa-e (*šundor-kore) ache
Ritu that room-Cl-Loc beautiful-do.Pfv is
'Ritu is in that room beautifully.'

However, the adnominal distributive numerals formed with *-kore* do not exhibit these properties. These numerals are not sensitive to the presence of the 'doer' or the 'causer' in the verbal predication. (12) shows that an adnominal distributive numeral is compatible with an anti-causative predicate.

- (12) prottek-bar du-ṭo-kore-phuldani bheje gæche
each.one-time two-Cl-do.Pfv-vase break.Prt go.Pfv.be.Pres.3
'Each time two vases broke.'

They are compatible with stative predicates.

- (13) Tebil-gulo-r upor du-ṭo-kore-phuldani ache
Table-Cl_{pl}-Gen on two-Cl-do.Pfv-vase is
'There are two vases each on the tables.'

Apart from adnominal distributive numerals, Bangla also has what is called in Gil (1982) the adverbial distributive numerals. The adverbial distributive numerals share the distributive morphology with the most complex form of the adnominal distributive numeral. But unlike the adnominal ones the adverbial distributive numerals do not have a nominal host.²

- (14) mee-ra du-jon-du-jon-kore jol-e jhāp dilo
girl-Pl two-Cl-two-Cl-do.Pfv water-Loc jump give.Past.3
'The girls jumped into the water in twos.'

The adnominal and the adverbial distributive numerals differ with respect to their compatibility with stative predicates. Just like the adverbs formed with *-kore* (10), (11), the adverbial distributive numerals are incompatible with stative predicates. The predicate 'know' is stative and (15) shows that an adverbial distributive numeral is incompatible with it.

- (15) *mee-ra du-jon-du-jon-kore Hindi janto
girl-Pl two-Cl-two-Cl-do.Pfv Hindi know.Hab.Past.3
'The girls knew Hindi in twos.'

Thus adnominal distributive numerals are a class of their own. In the next section I discuss the licensing conditions of these numerals.

²I mark the entire adverbial numeral in a box as it does not have a morphologically simpler correlate.

3 Licensing of adnominal distributive numerals

A licensor of a distributive numeral is a plurality with respect to the members of which the numeral covaries. In this section I show that the adnominal distributive numerals in Bangla need an overt or covert plural licensor that is in the same clause as the distributive numeral and is syntactically c-commanding. Moreover, I show that the distributive numerals can distribute down to subpluralities, if enough contextual or grammatical cue is provided. However, these items in Bangla cannot be licensed by a contextually salient plurality.

3.1 Ways of looking into licensing

There are three overarching issues in the licensing of a distributive numeral. First, if the licensor of a distributive numeral needs to be an overt or covert clausemate plurality, or if a contextually salient plurality may suffice. Second, if the licensing plurality needs to be in a syntactically higher or c-commanding position with respect to the distributive numeral, or if a syntactically lower plurality may act as a licensor. Third, if the licensing plurality can only be a count plurality, with atoms of individuals in its domain or if non-count pluralities may serve as licensor. An additional dimension in the last dichotomy is whether contextually salient non-atoms or subpluralities of a count-plurality may be accessible to the distributive numeral.

Champollion (2016) argued that all three of these issues can be subsumed under the question of atomic versus non-atomic distributivity. If a distributive numeral can distribute down to subpluralities of its licensing plurality, it can distribute over non-atomic individuals. This, according to Champollion bears on the question of whether the distributive element can be licensed by a contextually salient plurality, which is not a linguistic antecedent. Basing on Zimmermann (2002), among others, Champollion observed that cross-linguistically, distribution over contextually salient temporal or spatial domains are (largely) restricted to distributive elements that do not require a linguistic antecedent in the same clause (an example being German *jeweils*). By extension these elements can also have as their licensor a syntactically non-c-commanding plurality (eg. these can be licensed by conjunction of verb phrases).

Basing on cross-linguistic facts Champollion identifies two kinds of distributive items: (1) those that encode a distributivity operator like the *D* operator from Link (1987), Roberts (1987), that can only distribute down to atoms of pluralities and (2) those that encode a distributivity operator like the *Part* operator from Schwarzschild (1996) that can distribute over non-atomic covers of pluralities. The first kind of distributive items with a *D* operator in their denotation would require a syntactically c-commanding linguistic antecedent. The second kind of distributive items denoting *Part* would not require a linguistic antecedent.

As Champollion (2017, p. 208) himself mentions, the import of Zimmermann's generalization to bound-morphemes modifying determiners is unclear. These bound-morphemes cannot act like determiners themselves, so we expect distributive items bearing these to behave like *jeweils*, i.e., the items should be able to distribute over contextually salient pluralities and not require a linguistic antecedent. Reduplicative morphemes in Telugu (Balusu 2005), Tlingit (Cable 2014) instantiate that this prediction is met. However, distributive items marked by a bound morpheme on the determiner in a number of languages do not meet this prediction. Reduplicated indefinites in Hungarian (Farkas 1997), Kaqchikel (Henderson 2012, 2014) cannot distribute over salient pluralities and need linguistic antecedents. I show below that the distributive suffixes on numerals in Bangla behave like those in Hungarian or Kaqchikel.

3.2 Pluralities as licensors

An adnominal distributive numeral in Bangla can be licensed by a syntactically c-commanding plurality in the same clause. The licensor can be a definite or an indefinite plural, or a quantifier

that encodes plurality.³

The definite plural noun phrases marked with the plural classifier *-gulo* or the plural marker *-ra* (see discussion in Dayal (2012, 2014), Biswas (2016)) can license a distributive numeral. In (16), we get the reading that each girl had two sweets. This shows that the distributive numeral distributes down to atoms of its plural licenser. The same holds for the maximal definite form (Dayal 2012) of a plural plain numeral (17).

- (16) *še-din mee-ra/mee-gulo du-ṭo-kore-šəndeš khee-chilo*
 that-day girl-Pl/girl-Cl_{pl} two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 ‘That day the girls had two sweets each.’
- (17) *še-din mee-du-jon du-ṭo-kore-šəndeš khee-chilo*
 that-day girl-two-Cl two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 ‘That day the two girls had two sweets each.’

Example (18) illustrates that an indefinite plural, a plain numeral in this case, can license a distributive numeral.

- (18) *še-din du-jon-mee du-ṭo-kore-šəndeš khee-chilo*
 that-day two-Cl-girl two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 ‘That day two girls had two sweets each.’

Quantifiers whose restrictor is a plurality, regardless of monotonicity, can act as licensers.

- (19) *prottek-chatro-i še-din du-ṭo-kore-šəndeš khee-chilo*
 each.one-student-I that-day two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 ‘That day each one of the students had two sweets.’
- (20) *khub-kəm-chatro-i še-din du-ṭo-kore-šəndeš khee-chilo*
 very-less-student-I that-day two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 ‘That day very few kids had two sweets each.’
- (21) *Thik-tin-jon-chatro-i še-din du-ṭo-kore-šəndeš khee-chilo*
 exactly-three-Cl-student-I that-day two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 ‘That day exactly 3 kids had two sweets each.’

However, indefinite singulars cannot license distributive numerals. (22) illustrates the point with the determiner *kono-na-kono* ‘some or other’. The same holds for *æk* ‘one’ or *kono-æk* ‘some-one’.

- (22) *#kono-na-kono-chatro nišcoi še-din du-ṭo-kore-šəndeš khee-chilo*
 some-or-some-student definitely that-day two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 ‘That day some or other student must have had two sweets each.’

The determiner *du-er-kəm* ‘less than two’ cannot felicitously license a distributive numeral. However, the determiner *æk-er-beši* ‘more than one’ can do so.

Thus for quantificational licensers of distributive numerals, the requirement is that a plurality of individuals must satisfy the domain and the nuclear scope of the quantifier.

In terms of licensing of distributive numerals, groups act as singularities. Just as a singular individual cannot be the target of distribution for a distributive numeral (23), a group does not allow access to its sub-atoms for distribution (24).

- (23) *#Ritu du-ṭo-kore-šəndeš khee-chilo*
 Ritu two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 *‘Ritu had two sweets each.’

³I illustrate the facts about licensing using a *kore*-marked distributive numeral.

- (24) #mee-der-dəl-ṭa du-ṭo-kore-šōndeš khee-chilo
 girl-Gen.Pl-group-Cl two-Cl-do.Pfv-sweet have.Pfv-be.Past.3
 *‘The group of girls had two sweets each.’

Quantifiers over situations like *kəkhono-kəkhono* ‘sometimes’ (25), *majhe-majhe* ‘occasionally’ or *praei* ‘often’ can license adnominal distributive numerals.

- (25) Robi kəkhono-kəkhono du-ṭo-kore-šōndeš kheto
 Robi sometime-sometime two-Cl-do.Pfv-sweet have.Hab.Past.3
 ‘Sometimes Robi used to eat two sweets.’

However, universal or existential modals cannot license distributive numerals. (26) illustrates the fact with the predicate ‘want’ and (27) shows that the modal adverb *nišcoi* cannot be a licenser.

- (26) #Ritu du-ṭo-kore-šōndeš khete cae
 Ritu two-Cl-do.Pfv-sweet have.Impv want.Pres.3
 #‘Ritu wants to eat two sweets each.’
- (27) #Ritu nišcoi du-ṭo-kore-šōndeš khee-che
 Ritu definitely two-Cl-do.Pfv-sweet have.Pfv-be.Pres.3
 #‘Ritu definitely had two sweets each.’

3.3 Syntactic restrictions on licensing

The distributive numerals in Bangla require their licensors to be in the same clause and the licensors must be syntactically *c*-commanding. Below I provide examples that show that failure to meet these conditions blocks licensing of distributive numerals.

A distributive numeral in the subject position cannot be licensed by an indefinite plural DP in the direct object position (28).

- (28) #du-jon-kore-mee car-ṭe-boi poṛe-che
 two-Cl-do.Pfv-girl four-Cl-book read.Pfv-be.Pres.3
 (Intended)‘Four books were read by two girls each.’

Similarly an indefinite plural DP at the direct object position of the double object construction cannot license covarying readings of a distributive numeral in the indirect object position.

- (29) #Robi du-jon-kore-mee-ke pāc-ṭa-boi die-chilo
 Robi two-Cl-do.Pfv-girl-Dat five-Cl-book give.Pfv-be.Past.3
 (Intended)‘Robi gave five books to two girls each.’

A distributive quantifier in the direct object position can only marginally license the covarying interpretation of the distributive numeral in the subject position, but certainly the corresponding scrambled version is the preferable way to express the relevant covarying reading.

- (30) a. ?du-jon-kore-mee prottek-ṭa-boi poṛe-che
 two-Cl-do.Pfv-girl each.one-Cl-book read.Pfv-be.Pres.3
 (Intended)‘Every book was read by two girls.’
- b. prottek-ṭa-boi du-jon-kore-mee poṛe-che
 each.one-Cl-book two-Cl-do.Pfv-girl read.Pfv-be.Pres.3
 (Intended)‘Every book was read by two girls.’

The contrast is in fact clearer when we add the (maximality denoting) exclusive particle -I on the universal quantifier as shown by (31-a), which is infelicitous and the corresponding version with scrambling (31-b) is felicitous.

- (31) a. #du-jon-kore-mee prottek- \textasciitilde ta-boi-i po \textasciitilde che
 two-Cl-do.Pfv-girl each.one-Cl-book-I read.Pfv-be.Pres.3
 (Intended)‘Four books were read by two girls each.’
- b. prottek- \textasciitilde ta-boi-i du-jon-kore-mee po \textasciitilde che
 each.one-Cl-book-I two-Cl-do.Pfv-girl read.Pfv-be.Pres.3
 (Intended)‘Every book was read by two girls.’

Similarly a non-distributive quantifier determiner in the direct object position cannot license a distributive numeral in the subject position (32-a). Scrambling of the quantifier to a position c-commanding the distributive numeral makes the intended covarying interpretation available (32-b).

- (32) a. #du-jon-kore-mee \textasciitilde nek-gulo-boi-i/ khub-k \textasciitilde m-boi-i po \textasciitilde che
 two-Cl-do.Pfv-girl many-Cl_{pl}-book-I/ very-less-book-I read.Pfv-be.Pres.3
 (Intended)‘Many books/ very few books were read by two girls.’
- b. \textasciitilde nek-gulo-boi-i/ khub-k \textasciitilde m-boi-i du-jon-kore-mee po \textasciitilde che
 many-Cl_{pl}-book-I/ very-less-book-I two-Cl-do.Pfv-girl read.Pfv-be.Pres.3
 (Intended)‘Many books/ very few books were read by two girls.’

A c-commanding distributive quantifier in the matrix clause cannot license a distributive numeral inside a finite embedded clause. (33-a) instantiates the fact with a finite post-verbal complement clause and (33-b) shows the same with a finite pre-verbal complement clause. In either case the reading that the pair of books read by Robi varies w.r.t. each person is absent.

- (33) a. #protteke-i mone k \textasciitilde re [je Robi du- \textasciitilde to-kore-boi
 each.one.agentive.case-I mind do.Pres.3 that Robi two-Cl-do.Pfv-book
 po \textasciitilde che]
 read.Pfv-Pres.3
 #‘Everyone thinks that Robi read two books each.’
- b. #protteke-i [Robi du- \textasciitilde to-kore-boi po \textasciitilde che bole] mone
 each.one.agentive.case-I Robi two-Cl-do.Pfv-book read.Pfv-be.Pres.3 say.Pfv mind
 k \textasciitilde re
 do.Pres.3
 #‘Everyone thinks that Robi read two books each.’

However, a null subject of a non-finite clause can license a distributive numeral, as long as the null subject is bound by an appropriate plural antecedent.

- (34) protteke-i_i [PRO_i du- \textasciitilde to-kore-boi po \textasciitilde te] cae
 each.one.agentive.case-I PRO two-Cl-do.Pfv-book read.Impv want.Pres.3
 ‘Everyone wants to read two books each.’
- (35) #protteke-i Robi-ke_i [PRO_i du- \textasciitilde to-kore-boi po \textasciitilde te] bole-che
 each.one.agentive.case-I Robi-Dat PRO two-Cl-do.Pfv-book read.Impv ask.Pfv-be.Pres.3
 #‘Everyone asked Robi to read two books each.’

(36) shows that in order for a distributive quantifier inside a non-finite clause to license a distributive numeral in the matrix clause, the distributive quantifier must be scrambled to a position

c-commanding the numeral.

- (36) a. #Robi du-jon-kore-mee-ke_i [PRO_i prottek- $\dot{\text{t}}$ a-boi por $\dot{\text{t}}$ e] bole-che
 Robi two-Cl-do.Pfv-girl-Dat PRO each.one-Cl-book read.Impv ask.Pfv-be.Pres.3
 ‘Robi asked two girls to read every book.’
- b. Robi prottek- $\dot{\text{t}}$ a-boi_j du-jon-kore-mee-ke_i [PRO_i t_j por $\dot{\text{t}}$ e] bole-che
 Robi each.one-Cl-book two-Cl-do.Pfv-girl-Dat PRO t read.Impv ask.Pfv-be.Pres.3
 ‘Robi asked two girls to read every book.’

Based on the facts above it can be concluded that the distributive numerals require a syntactically c-commanding plural antecedent in the same clause.

3.4 Distribution down to subpluralities

The distributive numerals can distribute down to subpluralities instead of individual atoms of a plurality. But the distributive numerals cannot determine the subpluralities. The determination of the particular cover of a plurality is facilitated by contextual or grammatical means.

Most definite plural noun phrases are ambiguous between various covers (set of subsets) of the set denoted by the plurality. The distributive numerals can distribute over the members of a cover that is salient in a given situation. In (37-a) the pronoun *tara* denotes a group of groups and the distributive numeral assigns a different paper to each of the subgroups. Notice (37-b) containing adverbial quantifier *protteke* ‘each one of the people’, is contradictory in the context given in (37), as *protteke* forces distribution down to individual atoms but the context says that there wasn’t enough time for individual presentations.

- (37) We did not have enough time to let each student present a paper. So the students in the class were divided into groups of three, and then . . .
- a. ta-ra æk- $\dot{\text{t}}$ a-kore-paper present kore
 pron.3-Pl one-Cl-do.Pfv-paper present do.Pres.3
 ‘They (each group) presented a paper.’
- b. #ta-ra protteke æk- $\dot{\text{t}}$ a-kore-paper present kore
 pron.3-Pl each.one.agentive-case one-Cl-do.Pfv-paper present do.Pres.3
 ‘They each presented a paper.’

That the distributive numeral can distribute down to subpluralities is more easily detectable when we use *essentially plural predicates* (Hackl 2002). The main predicate of (38-a) is ‘make a pyramid formation’, which an individual gymnast cannot do. Thus the distributive numeral in this case is distributing over subgroups of the plurality denoted by the gymnasts. As is expected, (38-b) with adverbial *protteke* ‘each one of the people’ leads to infelicity, because neither each gymnast can be divided into small groups nor can they each make a pyramid.

- (38) a. gymnast-ra [PRO choTo choTo dəl-e bibhəkto hoe gie]
 gymnast-Pl PRO little little group-Loc divided be.Pfv go.Pfv
 æk- $\dot{\text{t}}$ a-kore-pyramid banie-che
 one-Cl-do.Pfv-pyramid make.caus.Pfv-be.Pres.3
 ‘The gymnasts after getting divided into small groups formed pyramids.’
- b. #gymnast-ra protteke [PRO choTo choTo dəl-e bibhəkto hoe
 gymnast-Pl each.one.agentive-case PRO little little group-Loc divided be.Pfv

gie] æk-ʈa-kore-pyramid banie-che
 go.Pfv one-Cl-do.Pfv-pyramid make.caus.Pfv-be.Pres.3
 ‘The gymnasts each after getting divided into small groups formed pyramids.’

Crucially however, eliminating the adverbial modifier ‘after getting divided into small groups’ leads to infelicity in this case (39), because there is not enough information about the context provided here, and therefore the cover of the plurality of gymnasts is not easily accessible out of the blue.

(39) gymnast-ra æk-ʈa-kore-pyramid banie-che
 gymnast-Pl one-Cl-do.Pfv-pyramid make.caus.Pfv-be.Pres.3
 ‘The gymnasts formed pyramids.’

It (39) would be felicitous if a context like the following in (40) were provided.

(40) Asmita and I were watching on TV the opening ceremony of the Olympic games. At some point, several groups of gymnasts were standing on the ground separated from each other in clearly demarcated spaces. But before they started performing I stopped watching the program and left the room. A few minutes later I called up and asked Asmita about the details of the ceremony and about what the gymnasts were doing. In reply to my question, Asmita could felicitously answer (39) to mean each subgroup of the gymnasts has formed a pyramid.

Therefore we can conclude that if a non-atomic cover of a plural noun phrase is contextually made salient then the distributive numeral can distribute over the non-atomic cover.

3.5 Distribution in *kind* and *mass* domains

Distributive numerals cannot distribute over kind denoting plurals out of the blue, as there is no salient cover of the plurality that is available for kinds. The kind denoting bare nominal does not provide a plural cover consisting of individual atoms.

(41) #adim manuš æk-ʈa-kore-chobi ãkto
 ancient human one-Cl-do.Pfv-picture draw.Hab.Past.3
 ‘Ancient humans used to draw a picture.’

If a partition is introduced by a compatible adverbial modifier, then only the distributive numeral can be licensed (42). Otherwise, a different plurality has to license the numeral (43).

(42) adim manuš [PRO bibhinno dɔl-e bibhɔkto hoe] æk-ʈa-kore-chobi
 ancient human PRO various group-Loc divided be.Pfv one-Cl-do.Pfv-picture
 ãkto
 draw.Hab.Past.3
 ‘Ancient humans, being divided into various groups, used to draw a picture.’

(43) adim manuš bibhinno guha-e thakto ebɔŋ šekhan-e tara
 ancient human various cave-Loc stay.Hab.Past.3 and there-Loc they
 æk-ʈa-kore-chobi ãkto
 one-Cl-do.Pfv-picture draw.Hab.Past.3
 ‘Ancient humans used to live in various caves and there they used to draw a picture.’

The same can be observed for kind denoting animate plurals marked with *-ra*. For example, the sentences in (41) to (43) would show the same pattern if the bare nominal ‘*adim manuš*’ were replaced by *adim manuše-ra*.

A *-kore*-marked distributive numeral can distribute over mass denoting bare nominals in equative constructions. Thus (44-a) means the salient packages of clay are for five rupees each.

- (44) They were selling clay in small packages at a pottery workshop.
- a. maTi pāc-Taka-kore Cop
 clay five-rupee-do.Pfv Cop
 ‘Clay is for five rupees each.’

Distribution in mass domains again provide evidence that distributive numerals can distribute over contextually salient cover of a plurality.

3.6 Distribution over non-linguistic antecedents

In this section I show that the contextually salient pluralities cannot license distributive numerals. This sets Bangla apart from languages like Telugu or Tlingit where distributive numerals have been shown to be contextually licensed (see Balusu (2005), Cable (2014)).

Although one can make sense of the sentence in (45-b) in the context (45-a), as describing that the group won a prize in each of the competitions, the utterance is ungrammatical or at best incomplete.

- (45) a. A group of students from our school were sent to several debate competitions.
 b. ??dɔl-ʈa æk-ʈa-kore-puroškar jite-che
 group-Cl two-Cl-do.Pfv-prize win.Pfv-be.Pres.3
 *‘The group won one prize each.’

The contrast between a linguistic antecedent and a contextually salient antecedent is clear in cases where we provide both and see that the distribution over the contextually salient location argument is unavailable. It would be very hard, if not impossible for the hearer to agree with the conclusion in (46-c) basing on the consecutive utterances in (46-a) and (46-b).

- (46) a. A total of three students from our school were sent to a total of four debate competitions. Each student went to at least one of the competitions, and not all the students went to all four of the competitions.
 b. o-ra æk-ʈa-kore-puroškar jite-che
 pron.3-Pl two-Cl-do.Pfv-prize win.Pfv-be.Pres.3
 ‘They won one prize each.’
 c. Thus our school won four prizes in total.
 d. o-ra competition-gulo-te æk-ʈa-kore-puroškar jite-che
 pron.3-Pl competition-Cl_{pl}-Loc two-Cl-do.Pfv-prize win.Pfv-be.Pres.3
 ‘They won one prize in each of the competitions.’

Whereas, if the occasion adverbs are uttered, no such discomfort for the hearer arise. Thus (46-c) is a completely plausible conclusion from (46-d).

It is important to note that occasion distributive readings can be licensed by elided adverbials, which reflects our conclusion from syntactic licensing.

- (47) a. Robi ar Ritu prottek-bar du-ʈo-kore-pakhi dekhechilo kintu
 Robi and Ritu each.one-time two-Cl-do.Pfv-bird see.Pfv-be.Past.3 but
 ‘Robi and Ritu saw two birds on each occasion, but ...’

- b. šomi tin-ṭe-kore-pakhi dekhe-chilo
 Shomi two-Cl-do.Pfv-bird see.Pfv-be.Past.3
 ‘Shomi saw three birds on each occasion.’

We can conclude that the distributive numerals require a clausemate plurality that is an overt or a covert linguistic antecedent.

4 Conclusion

The discussion on licensing of adnominal distributive numerals in Bangla above reveals that we will have to depart from the classification from distributive items proposed in Champollion (2016). Bangla adnominal distributive numerals cannot be licensed by contextually salient non-linguistic antecedents. But they are compatible with distribution over contextually determined non-atomic covers of pluralities. Distribution over non-atomic covers of pluralities motivates an analysis of adnominal distributive numerals in Bangla where the numeral is associated with a covert cover-based distributivity operator *Part* (Schwarzschild 1996). But the same analysis cannot be extended to explain licensing by contextual antecedents. Licensing by contextual antecedents must be a separate factor that is available for languages like Telugu, but not for languages like Bangla.

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