



# Parameter Clustering in Bangla Dialects

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# Syn-Diversity & Change at



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**Meso-level variation in major Eastern Indo-Aryan Languages:  
Assamese, Awadhi, Bangla, Bhojpuri, Magahi, Maithili, Odia**

# EIA Cluster of Properties

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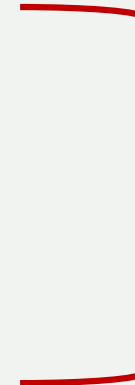
**SOV**

**Nom-Acc**

**+P,-N,-G**

**+Hon**

**+Cl**



# EIA meso-level variation

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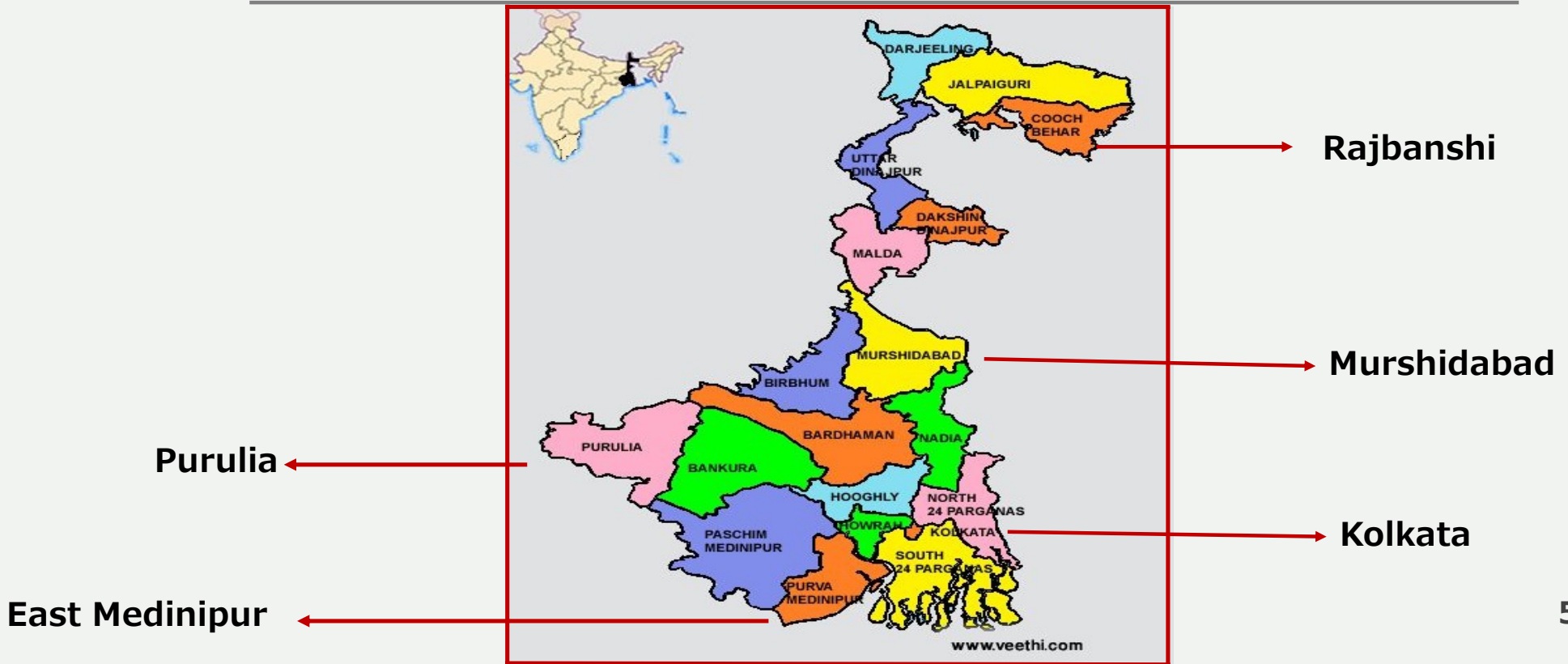


-G, +/-N

+Hon/Alloc

CL#

# Bangla Dialects



# Dialect Features

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| Bangla Dialects | Number | Gender | Classifier | Honorificity |
|-----------------|--------|--------|------------|--------------|
| Rajbanshi       | X      | X      | ✓          | X            |
| Murshidabad     | X      | X      | ✓          | X            |
| Kolkata         | X      | X      | ✓          | ✓            |
| East Medinipur  | ✓      | X      | ✓          | X            |
| Purulia         | X      | X      | ✓          | X            |

# Objectives

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- i) Describe and analyze each phenomenon (-N, -G, +CL) carefully.
  
- ii) Explain if and how these phenomena (-N,-G,+CL) are related, and the reasons underlying micro-level variation ( $\pm$  Hon).

# Broad Objective

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- The broad aim is to explain more with less technology (aka **Parameter Clustering** due to Fukui (1986), Kuroda (1988); also see Platzack and Holmberg (1989), Baker (1996, 2008), Roberts and Holmberg (2010) among others).



# Gender

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- Gender (agreement) is obligatorily missing.

Kolkata Bangla

(1)a. *chhele pore gaeche*  
boy fell go.3p.pst  
'The boy fell down'

b. *meye pore gaeche*  
girl fell go.3p.pst  
'The girl fell down'

c. *Tebil pore gaeche*  
table fell go.3p.pst.  
'The table fell down'

# Nominal Gender-Marking

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- Gender marking on nouns is rare and not very preferable.

Bangla (all 5 varieties)

(2) a. *maasTaar*

Teacher (M)

b. ?*maasTaar-ni*

Teacher (F)

(3) a. *daaktaar*

Doctor (M)

b. ?*daaktaar-ni*

Doctor (F)

# Nominal Gender Concord

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- There are very few instances of nominal gender concord – they are either remnants of Old Bangla (cf. Chatterjee 1923) or borrowed from Hindi-Urdu (*chhuuTkii* / 'younger one').

Purulia Bangla

(4) a. *daengaa chhuuaa*

tall.m boy

b. *daengii maijheo*

tall.f. girl

Murshidabad Bangla

(5) a. *moTaa haajii*

fat.m. pilgrim(M)

b. *moTaa/muTkii haejen*

fat.m./fat.f pilgrim(F)

# No Gender head

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- Gender concord and agreement are not productive, and hence G is not coded as a functional head (GenP) or a formal feature.
- The 'non-functional' nature of Gender is supported by the fact that the gender forms *ii/kii* create new categories with new meanings in Bangla varieties.

Purulia Bangla

(6) ***muTkii***

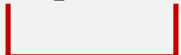
'The sweet one' (need not be fat; endearing)

# Gender on N

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- For Bangla dialects generally, gender is coded on N (Ritter 1993), in contrast to Kramer's (2015) n-gender or Sigurdsson's (2019) D-gender.

(7) [... [ZP [XP [**AP** A [NP **N<sub>G</sub>]]]]]                      (feature sharing)**



- Adjectives are placed adjacent to N and form a constituent (cf. Syed 2015).

# Number/Plural

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- There is no plural verbal agreement in the varieties.

Kolkata Bangla

(8) a. *ek-Taa meye khaabaar **khaaye***  
one-CL girl food eat.3p.impf  
'One girl eats food'

b. *paanch-jon meye khaabaar **khaaye***  
five-CL girl food eat.3p.impf  
'Five girls eat food'

# Nominal Plural-marking

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- East Medinipur variety has plural marking on nouns, but no number agreement.

East Medinipur Bangla

(9) a. *chhuraa-mene school ku jai thila*

boy-pl            school to go be-3p.pst.

'Boy(s) went to school'

b. *chhuraa school ku jai thila*

boy            school to go be-3p.pst.

'A boy went to school'

# No Plural Agreement

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- The number marker in East Medinipur Bangla is borrowed from Odia, which has number agreement.

Odia (Banerjee 2023)

(10) a. *Ram skul ku jaa-e*  
ram school to go-3sg.pres  
'Ram goes to school'

b. *pila-manne skul ku jaa-nti*  
boy-pl. school. to go-3pl.pres.  
'The boys go to school'



# Alternative form: Plural classifier

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- Bangla dialects have a marker *gulo/gula/gulae/gulaen* that is used as a plural.
- It is also called a count/additive/plural classifier (Dasgupta 1983, Bhattacharya 1999, Dayal 2014).

Murshidabad Bangla

(11) *chhele-gulae/goRu-gulae/tebil-gulae*  
boy-pl. /cow-pl. /table-pl.  
'Boys/cows/tables'

# No PL-CL agreement

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- Plural Classifiers do not trigger verbal agreement.

Kolkata Bangla

(12) a. *chhele pore gaeche*  
boy fell go-3p.pst  
'A boy fell down'

b. *chhele-gulo pore gaeche*  
Boy-pl fell go-3p.pst  
'Boys fell down'

## PLP with a PL-CL

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- Assuming that *gulo* is hosted on a PL(ural)P, the NP raises to a pre-PL-CL position.

(13) [PLP **NP** [PL-CL *gulo* [NP]



**NP-*gulo***

# Num(eral) Classifiers

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- Classifier *Taa/Te* can appear on numerals and with all types of nouns (human, animate/inanimate).

(14) *tiin-Taa/Te chhele/meye/goruu/tebil*

three-CL      boy /girl /cow /table

'Three boys/girls/cows/tables'

## CL as definite N

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- *Taa* can also attach to nouns directly, yielding a definite reading.

(15) *chhele-Taa/meye-Taa/goRuu-Taa/tebil-Taa*  
boy-CL /girl-CL /cow-CL /table-CL  
'A definite boy/girl/cow/table'

# Num-CL, NP-CL

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- *Te/Taa* is hosted on a separate CL head, between the Num(eral)P and the NP (Biswas 2013, Dutta 2023 among others).

(16) [NumP Num-**3** [CLP CL-*Taa* [NP **N**]]]

**3-Taa NP**

- The NP can also raise to CL and become NP-CL (definite reading).

(17) [NumP ...[CLP **NP** [CL-*Taa* [ **NP**]]]]

**NP-Taa**



# Interim Summary

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- All 5 varieties have representation (18), with short NP-raising:

(18) [...[NumP **Num** [PLP/CLP **PL-CL/CL** [NP **N<sub>G</sub>]]]]**

- Question: what explains the clustering of these properties (-N, -G, +CL)?

# A macro-difference

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- Ritter (1993) presents a “non-unified” account of number and gender for Hebrew and Romance languages:

(19)

a) [**Num**<sub>PI</sub> ... [**N**<sub>G</sub>]]

(Hebrew)

b) [**Num**<sub>PI+G</sub> ... [N]]

(Romance Languages)



# A Parameter

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- If Ritter's observations were to be rephrased in terms of a parameter:

(20) A (formal) Gender Feature piggybacks on (formal) Plural, otherwise it is 'semantic' G coded on NP.

# Parametric Values

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- Bangla (EIA) sets the parameter as G on NP, since there is only PL-CL.

(21) [DP D [NumP Num [PLP **PL-CL** [NP **N<sub>G</sub>**]]]]

- Hindi (WIA) sets the parameter as G on PL.

(22) [DP [NumP Num [PLP **PL+G** [NP N]]]]

- Hindi indeed combines plural and gender.

(23) a. *laRk-e*

boy-pl.m

'Boys'

b. *laRk-iyaaan*

girl-pl.fem

'Girls'

# PLD and Clustering Effects

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- The cluster of properties (-PL, -G, +CL) emerges from a single trigger and may have also developed concurrently. The PL-CL possibly served as the PLD, substituting the formal PL feature and pushing the G over to N.

(24) [NumP Num [PLP **PL-CL** [NP N<sub>G</sub>]]]

# Explaining dialect differences

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- Recall that Kolkata Bangla differs from other varieties in being the only one to allow honorific agreement.
- Interestingly, Kolkata Bangla also allows (longer) NP-raising with a Num-CL present, an option unavailable to other dialects.

(25) *aam, tiin-Te aam*  
mango, 3-CL ~~mango~~  
'Those 3 (specific) mangoes'

# Long NP-raising

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- When a Numeral is present in the structure, only Kolkata Bangla allows NP-raising to a position higher than Num.

(26) [DP D [~~NP~~ [NumP Num-3 [CLP CL-*Taa* [~~NP-N~~]]]]]

**NP 3-CL**

# Long NP-raising and Honorificity

- Long NP-raising in Kolkata Bangla has implications for honorificity.
- Honorificity is SAP/CP/cP-level (left periphery/discourse-related) phenomenon, decided from the speaker's perspective (Alok and Baker 2022, Kumari 2022 among others)

(27) [SAP **Speaker<sub>i</sub>** [TP [vP [**Hon<sub>i/j</sub>** [**DP-NP<sub>j</sub>**]]]]]



Honorificity Agreement

# Conclusion

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- Bangla (EIA) clusters may be described and refined further with more dialect data.
- Both strong correlations and variables should be accounted for within the parametric theory.
- Stronger correlations for Bangla (EIA) clusters result from the presence of PL-CL.
- Variable Hon results from an extra step allowed for some varieties.

# Way Forward

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- To enable more dialect surveys, IIT Delhi is currently in discussions with Asiatic Society of Kolkata, and WB state universities including Jadavpur University in Kolkata and North Bengal University in Siliguri.



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*Thank You*

## Appendix I: Old to Late Middle Bangla

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|                                   |                 |
|-----------------------------------|-----------------|
| Formative or Old Bangla           | 900- 1200 AD    |
| Transitional age of Middle Bangla | 1200-1300 AD    |
| Early Middle Bangla               | 1300-1500 AD    |
| Late Middle Bangla                | 1500- 1800 AD   |
| New Bangla                        | 1800 AD onwards |

## Appendix II: Gender in Early Middle Bangla

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- 1.(a) *geli, chalili Rahi*  
go.F walk.F Radha.F  
'Radha went'
- (b) *tārā pisĩ niyōjilī*  
'Her aunt was appointed'
- (c) *brāhmāṇ-ēr-i nārī*  
'A Brahman's wife'

(Chatterjee 1923, SKK)

## Appendix III: Plurality in Early Middle Bangla

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- Chatterjee (1923) mentions *-an* as a plural morpheme appearing in older varieties.

(1)a. *gula-n/guli-n*  
gulo-Pl  
'Group'

b. *sakkalai-n*  
sakal-Pl  
'All'

c. *sang-an-gar*  
friend-pl-gen.  
'For Friends'

d. *mit-an-rake*  
friend-pl-to  
'To Friends'