Dative/Accusative Syncretism in New Indo-Aryan

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Middle and Early New Indo-Aryan: a crucial period for linguistic development?

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Introduction

Later Indo-Aryan diachrony has been characterized as involving a progressive loss of ergative marking and gradual drift towards nominative-accusative alignment.

- Loss of ergative morphology in pronominal and nominal paradigms
- Subject agreement (replacing or in addition to object agreement)
- Accusative marking on a privileged class of objects (spread of differential object marking)

Analogical extension of the nominative-accusative model to ergative clauses.

The chronology

TIMELINE	STAGE	SAMPLE SOURCE
OIA		
200 BCE-400 CE	Epic Sanskrit	Mahābhārata (Mbh.); ∼ 967,000 words
MIA		
300 BCE-500 CE	Mahārāṣṭrī	Vasudevahiṃḍi (VH 609 CE)
500 CE-1100 CE	Apabhraṃśa	Paumacariu (PC ∼ 880 CE); ∼ 135,000 words
Old NIA		
1000-1350 CE	Old Marathi	Dnyāneśvarī (Dny 1287 CE); ∼ 107,800 words
		Līḷācaritra (LC 1278 CE); ∼ 57,000 words
	Middle Marathi	Dāsabodha (DB 1654 CE); ∼ 108,600 words

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Accusative marking in New Indo-Aryan diachrony

- We have very limited understanding of the nature of nominative–accusative alignment at distinct stages of Indo-Aryan.
- Old Indo-Aryan exhibits clear accusative marking for the vast majority of objects of transitive clauses.
- How does this pattern evolve into the New Indo-Aryan DOM pattern?
- How does such a pattern obtain in ergative clauses?

A puzzle

The case morphology of Apabhraṃśa presents a puzzle for the rise of DOM.

- Erosion/simplification leads to reduction in overt disambiguation of grammatical relations
  - Nominative/accusative syncretism in nominals and some 3^{rd} person pronouns
  - Accusative/ergative syncretism in 1^{st} and 2^{nd} pronouns
  - Dative/genitive syncretism across the board
  - The use of new postpositional markers to disambiguate semantic relations (in particular possessor, goal, and benefactive).

What is the starting point for the DOM pattern?

Case syncretism in Apabhraṃśa

Stem	Case	Singular	plural
a-stems	NOM	**puttu**	**putta**
	ACC	**puttu**	**putta**
	INSTR/ERG	putt-eṃ	putta-hiṃ/ehiṃ
	DAT/GEN	putt-aho/ahu	putta-haṃ
1st pronoun	NOM	hauṃ	**amhe, amhaiṃ**
	ACC	**mai(ṃ)**	**amhe, amhaiṃ**
	INST/ERG	**mai(ṃ)**	amhe-hiṃ
	DAT/GEN	mahu, majjhu	amha, amhaha
2nd pronoun	NOM	tuhuṃ	**tumhe**
	ACC	**paiṇ, taiṃ**	**tumhe**
	INST/ERG	**paiṇ, taiṃ**	tumhehiṃ
	DAT/GEN	tahu, tujjha	tumha, tumhaha
3rd pronoun MASC/FEM	NOM	so, su; **sā**	**te**, **tāu**
	ACC	taṃ; **sā**	**te**; **tāu**
	INST/ERG	teṇṇa; tāe, tīe	tehiṃ; tāhaṃ
	DAT/GEN	taho, tahu; tāhe	tāhaṃ; tāhaṃ

Unmarked objects in MIA: imperfective clauses

(1) #kiṃ **tamu** haṇ-ai ṇa vālu
QUES darkness.NOM.SG destroy-IMPF.3.SG NEG young
ravi# #kiṃ vālu **davaggi** ṇa ḍah-ai
sun.NOM.SG QUES young fire.NOM.SG NEG burn-IMPF.3.SG
vaṇu# #kiṃ kari dal-ai
forest.NOM.SG QUES elephant.NOM.SG shatter-IMPF.3.SG
ṇa vālu **hari**# #kiṃ vālu ṇa ḍaĩk-ai
NEG young lion.NOM.SG QUES young NEG bite-IMPF.3.SG
uragamaṇu#
snake.NOM.SG
Does the young (rising) sun not destroy darkness? Does the young fire (spark) not burn down the forest? Does a young lion (cub) not shatter the elephant? Does the young snake not bite? (PC 2.21.6.9)

A possible trajectory

- DOM emerges in Late Middle Indic/Early New Indic – perhaps **first** in non-ergative clauses, then in ergative clauses.
- This pattern carries on as an inheritance in the Modern NIA languages.

Problems

There are two problems with this hypothesized trajectory.

- No dent into the question of why/how DOM arises in the kind of syncretic system seen in Middle Indic (lack of nominative-accusative contrast).
- Offers no account of why dative and accusative marking is **syncretic** across New Indo-Aryan languages – a DOM system *without* such syncretism is logically possible.

A closer look

- Old Marathi is a good candidate for examining this trajectory at a finer level of resolution.

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- Old Marathi is a good candidate for examining this trajectory at a finer level of resolution.
- In the earliest stages of the language,we already see innovated markers (case-clitics) for transitive objects (*-tẽ* and *-si/sī*).
- Bare oblique-marked object arguments and nominative arguments also appear in transitive clauses.
- The question is whether these markers appear in free variation or if there is a clearer distribution evident.

The study

- Investigate morphological marking on objects of transitive verbs in Old Marathi
- Distinguish between verbs that have theme/patient objects vs. those that have possessor/goal objects (or indirect objects)
- Identify whether there is evidence for DOM in Old Marathi

Corpus

- Līḷācharitra (ca. 1286 CE, prose (excerpt) ∼39000 words)
- Dnyāneśvari (ca. 1287 CE, verse, 107,815 words)
- Dāsabodha (ca. 1654 CE, verse, 108,612 words)

Methodology

- Identified morphological case marking in Old Marathi that is associated with objects of transitive verbs (Tulpule 1960, Master 1964)
  - -tẽ
  - -si, sī
  - oblique
  - unmarked nominative
- Extracted all instances of *-tẽ* and *-si/sī*
- Manually eliminated false cases of non-accusative endings
- Identified the verbs occurring with *-tẽ* and *-si, sī* complements.

Two classes of verbs

Two classes of verbs were identified from the extracted set (Harvard-Kyoto convention):

- **Theme/patient object verbs (n=75):** *mhaN, vadh, bhed, giL, grAs, pID, bAdh, sAMg, saL, TAL, bhul, jAN, dam, poS, pokh, neN, dekh, voras, avadhAr, nAz, bol, bhaj, pAv, bhog, prakAzi, baMdh, sparz, prasav, oLakh, noLakh, pAh, mAr, dhikkAr, joD, giMvas, avalok, voj, volAMD, limp, AliMg, soDav, gAL, raMj, unmUL, loT, vADhav, caDhav, vANi, avher, dhar, toD, Thev, vinav, varN, lekh, pus, Thel, bheDav, maDh, voLakh, ciMt, vyAp, vovAL, jiN, carc, rAmdh, smar, kADh, niyam, nivAr, hokAr, pel, upazam, ALav, adhikar, cuka*
- **Posessor/goal object verbs (n=12):** *bhiD, bih, bhi, jhomb, jAha, aiki, ADaL, sAND, saMg, dij, dei, desi, miL, ligaT*

Two classes of verbs

Two classes of verbs were identified from the extracted set (Harvard-Kyoto convention):

- **Theme/patient object verbs (n=75):** *speak, kill, pierce, swallow, consume, harass, damage, tell, avoid, forget, know, defeat, rear, see, listen, destroy, speak, worship, bless, enjoy, illuminate, build, touch, bear, recognize, not-recognize, see, strike, denigrate, connect, find, observe, cross, embrace, rescue, untie, filter, pull-out, push, increase, raise, , catch, break, keep, plead, describe, consider, ask, push, bother, recognize, think, occupy, worship, win, discuss, cook, remember, take-out, rule, avert, agree, balance, subdue, call-out, rule, miss*
- **Posessor/goal object verbs (n=12):** *connect, fear, fear, tackle, experience, hear, find/understand, leave, give, find, cling*

Predictions

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- If the language distinguishes between accusative and dative marking, there should be clear distributional differences among the endings.
- If it makes no distinction, there should be no difference in frequency of *tẽ* and *si/sī* in either class of verbs.

The study

- The search was restricted to finite and non-finite imperfective and perfective clauses.
- We searched for the following endings in a context window (2 words before target verb occurrence and 2 words following):
  - -tẽ
  - -si, sī
  - oblique
  - unmarked nominative
- This allowed us to approximate the relative frequency of marked transitive objects with distinct endings.

Preliminary findings: Theme/patient verbs

Text	*n*	tẽ	si/sī	Oblique	Nominative
Dnyāneśvarī	4388	304	91	3786	207
Līḷācaritra	1118	149	84	854	31
All	5506	453	175	4640	238

Table: Transitive object marking in Old Marathi with theme/patient verbs

Preliminary findings: Possessor/goal verbs

Text	*n*	tẽ	si/sī	Oblique	Nominative
Dnyāneśvarī	466	10	27	409	20

Table: Transitive object marking in Old Marathi with possessor/goal verbs

Preliminary findings

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- **Theme/patient verbs:** 72% of overtly case-marked arguments exhibit *tẽ*; 28% have *si/sī* marking.
- **Possessor/goal verbs:** In contrast, 72% of overtly marked arguments exhibit *si/sī*; 28% have *tẽ* marking.

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- **Theme/patient verbs:** 72% of overtly case-marked arguments exhibit *tẽ*; 28% have *si/sī* marking.
- **Possessor/goal verbs:** In contrast, 72% of overtly marked arguments exhibit *si/sī*; 28% have *tẽ* marking.

This indicates a system that is evolving from one in which oblique marking is used to mark both theme/patients and possessor goals to one in which distinct case-markers carry distinct loads.

Preliminary findings: Middle Marathi

- In a later text, the Dasabhoda (ca. 1654 CE), we find a different distribution with theme/patient verbs and possessor/goal verbs.
- We identified and found the following endings:
  - -tẽ
  - -si, sī
  - oblique
  - lā (innovated)

Dāsabodha	*n*	tẽ	si/sī	lā	Oblique
Theme/patient verbs	553	18	434	97	4
Possessor/goal verbs	30	1	24	5	0

Table: Transitive object marking in Middle Marathi

Preliminary findings: Middle Marathi

- Oblique marking, the most frequent marking in Old Marathi, is virtually lost in the language.
- **Theme/patient verbs:** 3% of theme/patient verbs occur with *tẽ* marking; 78% with *si/sī* marking.
- 17.5% occur with an innovated marker *lā*.
- **Possessor/goal verbs** (small *n*) appear far more frequently (80%) with *si/sī*.

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This suggests a system in which the case-clitic *tẽ* has been **replaced** by the case-clitic *si/sī* in theme/patient verbs – the classic syncretic DOM pattern.

Summary

- **Old Marathi:** We do not see a syncretic case-marking system in which the same marking is used for DOM (accusative) contexts and possessor/goal (dative) contexts.
  - Transitive objects of theme/patient verbs occur overwhelmingly with one case-clitic – *tẽ*.
  - Transitive objects of possessor/goal verbs occur overwhelmingly with another distinct case-clitic – *si/sī*.
- **Middle Marathi:** A "takeover" by the dative clitic which is extended to theme/patient verbs. The establishment of the classic syncretic DOM system.

The effect of aspectual differences

- Does the presence of overt case marking (*tẽ*) differ between perfective and imperfective clauses?
  - This question is especially relevant for theme/patient verbs – perfective ergative clauses inherit nominative marking on the transitive object.
  - Accusative marking is an innovated alignment pattern in new Indo-Aryan languages.
- We may predict that *tẽ* marking occurs differentially in perfective vs. imperfective clauses.

The effect of aspectual differences: Old Marathi

	Aspect	*n*	tẽ	si/sī	Oblique	Nominative
Dny	Perfective	598	30	16	532	20
	Imperfective	3790	274	75	3254	187
LC	Perfective	415	108	23	274	10
	Imperfective	706	41	61	583	21
Total	Perfective	1013	138	39	806	30
	Imperfective	4528	315	136	3837	208
Ratio	Perfective	1013	14%	4%	80%	3%
	Imperfective	4528	7%	3%	85%	5%

Table: Aspect-based distribution of transitive object marking in Old Marathi with theme/patient verbs

The effect of aspectual differences: Old Marathi

- The high frequency of *tẽ* marking in the perfective clauses of the Līḷācaritra and in total are due to the high appearance of the theme/patient verbs *pus* 'ask' and *dekh* 'speak' in the Līḷācaritra.
- Only the frequency of *tẽ* marking in the perfective changes when factoring out these verbs, all other endings remain the same.
- After factoring these verbs out overall, we obtain robust and comparable ratios for all endings in both aspects.

The effect of aspectual differences: Old Marathi

	Aspect	*n*	tẽ	si/sī	Oblique	Nominative
DNY	Perfective	480	24	15	425	16
	Imperfective	3293	245	63	2835	150
LC	Perfective	168	12	17	133	6
	Imperfective	635	26	54	536	19
Total	Perfective	648	36	32	558	22
	Imperfective	3928	271	117	3317	169
Ratio	Perfective	648	6%	5%	86%	3%
	Imperfective	3928	7%	3%	86%	4%

Table: Aspect-based distribution of transitive object marking in Old Marathi with theme/patient verbs (revised)

Findings

- There is no difference in the frequency of *tẽ* in perfective vs. imperfective clauses.
- Accusative marking is robustly attested in both ergative and non-ergative clauses from the earliest period of Old Marathi.
- This supports a scenario in which extension to DOM is not a sequential phenomenon – first in non-ergative clauses and then analogically extended to ergative clauses.
- Both aspects exhibit it in similar proportion.

The effect of aspectual differences: Middle Marathi

Aspect	*n*	tẽ	si/sī	lā	Oblique
Perfective	83	2 (2%)	66 (80%)	15 (18%)	0 (0%)
Imperfective	470	16 (3%)	368 (78%)	82 (17%)	4 (1%)
All	553	18 (3%)	434 (78%)	97 (18%)	4 (1%)

Table: Aspect-based distribution of transitive object marking in Middle Marathi with theme/patient verbs

- The lack of aspect-based difference in accusative marking continues.
- Neither *si/sī* nor *lā* occur differentially in perfective vs. imperfective clauses.

Concluding remarks

- Old Marathi exhibits two distinctive case-clitics for accusative and dative case with clear distributional differences:
  - *tẽ* is used to mark theme/patient objects (accusative)
  - *si/sī* is used to mark possessor/goal objects (dative)
- The dative clitic is extended to theme/patient verbs in Middle Marathi which leads to the emergence of the classic syncretic DOM pattern.
- Moreover, DOM is not a sequential phenomenon because it appears to a similar degree in both ergative and non-ergative clauses from Old Marathi on.