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1. Introduction

Rooryck and Vanden Wyngaerd (2011): Two related reflexive constructions:

- (1) SE-anaphors (direct reflexives):

Jan heeft **zich** bezeerd (Dutch)
Jan has SE hurt

‘Jan hurt himself’

- (2) Inalienably possessed body part DPs:

Jan heeft **zijn voet** bezeert (Dutch)
Jan has his foot hurt

‘Jan hurt his foot’

Rooryck & Vanden Wyngaerd: Unaccusative analysis of (1) and (2) – internal argument contains both the possessor and the possessum:

- (3) $[VP \text{ bezer } [RP [DP \text{ zich/zijn voet}] R [PP P [DP \text{ Jan}]]]]$

Vedic Sanskrit (data from the Rigveda, ca. 1,400-1,200 BCE): non-informant language with an active – middle voice distinction and emergent reflexive pronouns. Apparent **double marking** (cp. (3) and (2)):

- (4) $\acute{a}nu \text{ mṛks̄ṣ-ṭa} \quad \text{tanvām}$
PRVB injure.AOR.OPT-3SG.MID SELF.ACC
‘May he injure himself’

Reflexivity marked on verb (middle endings) *and* through a reflexive pronoun (*tanū́*)? Not predicted by standard approaches (e.g. Reinhart and Reuland 1993).

2. Questions

In languages with an active – non-active voice opposition and no reflexive pronouns,

- can non-active voice alone express (1) (‘direct reflexives’) and if yes, is this valency reduction?
- what is the relationship between (1) and (2)?
- how do reflexive pronouns develop diachronically?

3. The middle voice in Vedic

- Naturally reflexive/reciprocal predicates: *páva-te* ‘cleans him/herself’, *spárdha-nte* ‘are competing with each other’

- Anticausative/inchoative: *váha-te* ‘moves’, *várdha-te* ‘grows’

- Self-benefactive:

- (5) $harī \quad gr̄bhṇ-e$
bright.ACC.DU seize-1SG.MID
‘I am seizing two horses for myself.’

4. Body part reflexives

Body part reflexives as part-whole relation: Rooryck and Vanden Wyngaerd (2011) (SE-anaphors = ‘spacio-temporal slices’), Reuland (2011) body part DPs = are referentially deficient **relational nouns**:

- (6) B(ody)P(art) $\langle x, y \rangle$, where x is the inalienable body of y

Examples from Vedic:

- (7) $bāhū$
arms.ACC.DU
 $anu-mármṛj-āno$
PRVB-brushing-MID.PTCP.NOM
‘Brushing (your) arms, ...’

- (8) $savitā \quad bāhū$
Savitar.NOM arms.ACC.DU
 $ayaṃs-ta$
raise.AOR-3SG.MID
‘Savitar raised (his) arms’

- (9) $diví \quad mūrdhānaṃ \quad dadhi-ṣe$
sky.LOC head.ACC place.PERF-2SG.MID
‘You have placed (your) head in the sky’

Intransitive:

- (10) a. $māmṛj-e$ (mid.) ‘brushes oneself’
b. $yama-te$ (mid.) ‘extends, stretches oneself’
c. $dadh-e$ (mid.) ‘places oneself’

A puzzle: How is (10) related to (7) – (9)?

5. *tanū́*- ‘body’

tanū́- f. 1. ‘body’, 2. SELF → 3. reflexive pronoun. Starting point: constructions parallel to (7) – (9):

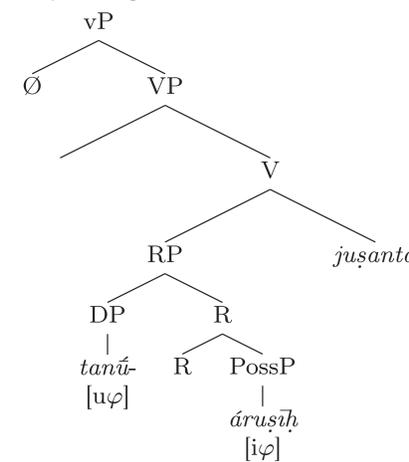
- (11) $tanvāḥ \quad śumbha-mānāḥ$
bodies.ACC adorn-MID.PTCP.NOM.PL
Ambiguous: ‘adorning (our) bodies’ or ‘adorning ourselves’

Applying Rooryck and Vanden Wyngaerd (2011)’s analysis to *tanū́*-reflexives:

- (12) $áruṣṛ \quad \dots \quad tanvò \quad juṣa-nta$
reddish.NOM SELF.ACC enjoy-3PL.MID
‘The red (flames) ... are enjoying themselves.’

1. AGREE takes place in RP:

$[VP [RP \text{ tanū́-}[\varphi] R [PossP \acute{a}ruṣṛ[\varphi]]] \text{ juṣanta}]$



2. Possessor raising out of RP gives SOV word order:

$[TP \acute{a}ruṣṛ_i [VP [RP \text{ tanū́-} R [PossP t_i]]] \text{ juṣanta}]$

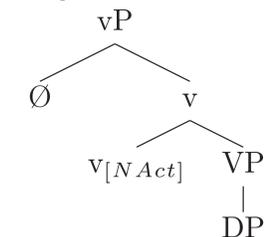
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6. Why middle voice?

Embick (1998), (2000): non-active voice is assigned post-syntactically “when v is not in a local relationship with an external argument” (1998: 22):

- (13) $V \rightarrow V\text{-VOC}[\text{NonAct}]/_ \text{ No external DP argument}$



BP-reflexives (*tanū́*-reflexives and (7) – (9)) only have an internal argument → middle voice is assigned:

- (14) $[vP \emptyset v [VP [RP] V]] \rightarrow [vP \emptyset v_{NAct} [VP [RP] V]]$

7. Implications

- Diachronic development: BP reflexive construction ((7) – (9)) → direct reflexive construction (12). Final stage: *tanū́*- loses φ -features (here: NUMBER):

- (15) $yá \text{ devéṣu} \quad \text{tanvām}$
who gods.LOC SELF.ACC.SG
 $aíraya-nta$
move-3PL.MID
‘... who gave themselves to the gods.’ (cp. (11) – (12))

- Neither type of reflexive merges an external argument in $v \rightarrow$ middle voice is assigned
- Middle voice is not valency-reducing: Examples in (10) have unexpressed relational variable x in RP:

- (16) $māmṛje$ ‘He brushes himself’ :
 $[vP \emptyset v [VP [RP x [PossP \text{ he}]]] \text{ brushes}_V]]$

Prediction: Languages with an active – non-active voice distinction will have non-active morphology in reflexive constructions if their reflexive pronouns developed out of body part DP