Pāṇinīya tradition as a source for the study of the Middle Indo-Aryan labile verbs

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Pāṇini and his school (*pāṇinīya*)

- Pāṇini: VI – IV cent. B.C.
- Kātyāyana: III cent. B.C.
- Patañjali: II cent. B.C.

(all dates uncertain)
Pāṇini’s syntactical device: kāraka roles

kartṛ = ‘agent’
karman = ‘patient’
karaṇa = ‘instrument’
saṃpradāna = ‘beneficiary’
adhikaraṇa = ‘location’
apādāna = ‘source’
“Sub-actions” theory:

basic sentence

Devadattaḥ  sṭhālyām  odanam  kāṣṭhāiḥ  pacati.
Devadatta-NOM  pot-LOC  rice-ACC  sticks-INSTR  cook-3sg

‘Devadatta cooks rice in a pot by the means of some firewood’.

...from this some other sentence are derived...
“Sub-actions” theory:

adhikaraṇa ‘location’ as kartṛ

Sthāli droṇam pacati.

pot-NOM measure-ACC cook-3sg

‘The pot cooks a droṇa’.
“Sub-actions” theory:

*karaṇa* ‘instrument’ as *kartṛ*

\[ Kāṣṭhāṇy \text{ odanaṁ} \text{ pacanti.} \]

sticks-NOM rice-ACC cook-3sg

‘Wooden sticks cook rice’.
“Sub-actions” theory:

karaṇa ‘instrument’ as kartṛ

Paraśunā chinatti. ⇒ Paraśuś chinatti.
axe-INSTR cut-3sg axe-NOM cut-3sg
‘He cuts with an axe’. ⇒ ‘The axe cuts’.

Devadatto dhanuṣā mṛgāṁ vidhyati
Devadatta-NOM bow-INSTR deer-ACC shoots-3sg
‘Devadatta shoots a deer with a bow’.

↓

Dhanur mṛgāṁ vidhyati.
bow-NOM deer-ACC shoot-3sg
‘The bow shoots the deer’.
“Sub-actions” theory:

adhikaraṇa ‘location’ and apādāna ‘source’ as kartṛ:

Balāhakād / balāhake vidyotate
cloud-ABL / cloud-LOC lighten-3sg.MID
‘It is lightening from / in the cloud’.

Balāhako vidyotate
cloud-NOM lighten-3sg.MID
‘The cloud is lightening’. 
Canonical lability:

- both transitive and intransitive constructions are attested;
- the subject changes its semantic feature;
- the entire paradigms of the involved verbs are labile;
- the elliptic argument of the verb cannot be recovered from the context;
- no lexical synonymy can be adduced to explain the two variants of the verbs.
No patient-preserving lability

Valence decreasing derivation is morphologically marked:

Devadattaḥ pacaty odanam.  ⇒  Odanaḥ pacyate.

Devadatta-NOM cook-3sg.ACT rice-ACC  rice-NOM cook-3sg.PASS

‘Devadatta cooks rice’.  ‘The rice cooks by itself’. 
Agent-preserving lability

Devadatta\textsubscript{ñ} \textit{pacati}.

Devadatta-NOM cook-3sg

‘Devadatta cooks’.
Middle Indo-Aryan languages:

• Pāli (Buddhist canon, very similar to Sanskrit)
• Prakrits (spoken vernaculars, III cent. B.C. – 1000 A.D. ca.)
• Buddhist Hybrid Sanskrit (extremely “prakrītized” version of late Sanskrit of the Buddhist literature, first centuries A.D.)
Scalar presentation of the verbal system

<table>
<thead>
<tr>
<th>valence num.:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>semantic roles:</td>
<td>A/P</td>
<td>A+P or C+A/P</td>
<td>C+A+P</td>
<td>C+C+A+P</td>
</tr>
<tr>
<td>type of verb:</td>
<td>intransitive</td>
<td>transitive or causative of an intransitive</td>
<td>causative of a transitive</td>
<td>double causative</td>
</tr>
</tbody>
</table>
Valency increasing derivation in Sanskrit

Morphology:

suffix -aya- (later -āpayā-)

lengthening of the root vowel (usually)

Example:

\[\text{patati} \text{ ‘falls’} \Rightarrow \text{pātayati} \text{ ‘causes to fall’}\]
System of diatheses in Classical Sanskrit

• **active**, marked by so-called active endings (like 3sg. -\textit{ti})

• **middle**, marked by so-called middle endings (like 3sg. -\textit{te})

• **passive**, marked by the middle endings and a special suffix -\textit{ya-}
Valency decreasing derivation in Sanskrit:

**impersonal passive construction**

\[
\text{odanaḥ} \quad \text{pacyate} \quad \text{devadattena} \\
\text{rice-NOM} \quad \text{cook-3sg.PASS} \quad \text{Devadatta-INST}
\]

‘The rice is cooked by Devadatta’ (**standard passive**)

**vs.**

\[
\text{odanaḥ} \quad \text{pacyate} \\
\text{rice-NOM} \quad \text{cook-3sg.PASS}
\]

‘The rice is cooking’ (**valence decreasing impersonal passive**)
Valency decreasing derivation in Sanskrit:

middle voice

muñcati
free-3sg.ACT
‘He frees’ (active, transitive)

vs.

muñcate
free-3sg.MID
‘He frees himself, becomes free’ (valence decreasing middle).
# Verb in Sanskrit

<table>
<thead>
<tr>
<th>valences number:</th>
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<th>3</th>
</tr>
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<tbody>
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<td>A/P</td>
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</tr>
<tr>
<td>type of primary verb:</td>
<td>intransitive</td>
<td>transitive</td>
<td></td>
</tr>
<tr>
<td>type of derived verb:</td>
<td>agentless passive, middle</td>
<td>causative of an intransitive</td>
<td>causative of a transitive</td>
</tr>
</tbody>
</table>
Morphological ambiguities

Causative suffix = stems of the Xth class

Passive suffix = stems of the IVth class
Decausativization of causatives in Sanskrit

karoti ‘does’ vs. kārayati ‘causes to do’ but also ‘does’

(Buddhist and epigraphic texts)

bhajati ‘divides’ vs. bhājayati ‘causes to divide’ but also ‘divides’

(mathematical meaning, in Sūryasiddhānta, a treatise in astronomy).
Reasons for decausativization in Sanskrit:

morphological

- the suffix of the causative was also shared by a class of verbs without any causative meaning;
- the root vowel was not lengthened in all the roots;
Reasons for decausativization in Sanskrit:

**semantic**

- in the middle voice the causative meaning was very weak;
- the causative of an intransitive verb turns to be almost identical to a simple transitive, both in meaning and valence structure;
- the causative formation from a transitive verb can easily lose the valence of the causee agent, and therefore can lexicalize as a simple transitive.
Causatives in Pāli and Prakrits
outcome of the Sanskrit causative suffix:
disyllabic -aya- turned to a monosyllabic -e-

interchangeable thematic vowels:

vadeti vs. vadati ‘speaks’ (-e- instead of -a-)

mārati vs. māreti ‘kills’ (-a- instead of -e-, ← mārayati ‘causes to die’)

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New causative suffix: 
-āpayā-, later -āpe-, later -āve-

Pāli

Bhikkhū [...] rukkham chindanti pi chedāpenti pi.
monk-NOM tree-ACC cut-3pl.ACT and cut-3pl.CAUS and
‘The monks cut trees and have them cut’.

(Sutta Nipāta 3.3)
New causative suffix: -āpaya-, later -āpe-, later -āve-

Buddhist Hybrid Sanskrit

mārāpemi ‘I cause to kill’ = causative from māreti ‘kill’

(Mahāvastu II.247.3)
Double causative suffix: -āpāpe-

Epigraphic Prakrit

likhāpāpita ‘caused to be engraved’ (participle)

(causative of likhāpa-, etymologically causative of likh- ‘to write’)

Pāli

ṭhapāpeti ‘orders to establish’

(causative of ṭhapeti ‘establish’, etymologically causative of ṭha ‘stay’)

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Loss of the middle endings

Involved both **middle** and **passive** diatheses

already in Epic Sanskrit, as a prakritism:

`pacyati`

cook-PASS-3sg.ACT

‘is being cooked’ (*Mahābhārata* 5.107.14)

(formally: a passive with an active ending, instead of middle)
Phonological reasons

[e], [o]  ⇒  [i], [u]

consequence for the verbal paradigm:

-te  ⇒  -ti

3sg.MID  ⇒  3sg.ACT

(etc)
Passive in Prakrits

Morphology

**suffix:** -iyya- (Pāli), -ijja- (later Prakrits)

**gemination** of the root final consonant

**Examples:**

Prakrit *dijjaī* ‘is given’ (from the root *dā* + -ijja-)

Pāli *vuccati*, Prakrit *vuccai* ‘is said’ (from the root *vac* + gemination)
Ambiguities of the passive in Prakrit

Oscillations in the geminatation:

Pāli suyyati and sūyati ‘is heard’

Prakrit dīsaï and dissaï ‘is seen, appears’

Roots ending in a geminate consonant

jujjai ‘bounds’ (-jj- from -ñj-)
Agentless passive in Pāli

*Kumārikā paṇṇasālāya nisīditvā kandamūlādīnī pacati.* (active = *transitive*)

‘Sitting in a tree-leaves shelter the girl cooks roots and tubers’.

vs.

*Atha nam sā nisīda yāva pacati.* (passive = *inchoative intransitive*)

‘Then she [says] to him «be seated while it is being cooked»’.
## Overview

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<thead>
<tr>
<th>Productivity:</th>
<th>Productive</th>
<th>Non Productive (Lexicalized Forms)</th>
<th>Productive</th>
</tr>
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<tbody>
<tr>
<td>Valences:</td>
<td>1=P</td>
<td>1=A</td>
<td>2=A+P</td>
</tr>
<tr>
<td>Transitivity:</td>
<td>Passive</td>
<td>Intransitive</td>
<td>Transitive</td>
</tr>
<tr>
<td>Causativity:</td>
<td>Non Causative</td>
<td></td>
<td>Causative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Examples: (Same Root Per Line)</th>
<th>column number:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>tiṭṭhati</em> ‘he stands’</td>
<td>1</td>
</tr>
<tr>
<td><em>ṭhapeti</em> ‘he puts’</td>
<td>2</td>
</tr>
<tr>
<td><em>ṭhapāpeti</em> ‘he causes to put’</td>
<td>3</td>
</tr>
<tr>
<td><em>diyyati</em> ‘he is given’</td>
<td>4</td>
</tr>
<tr>
<td><em>dadāti</em> ‘he gives’</td>
<td>5</td>
</tr>
<tr>
<td><em>dāpeti</em> ‘he causes to give’</td>
<td></td>
</tr>
<tr>
<td><em>kayirati</em> ‘he is done’</td>
<td>1</td>
</tr>
<tr>
<td><em>karoti</em> ‘he does’</td>
<td>2</td>
</tr>
<tr>
<td><em>kāreti</em> ‘he causes to do’ (&gt; ‘he rules, builds’)</td>
<td>3</td>
</tr>
<tr>
<td><em>kārāpeti</em> ‘he causes to build’</td>
<td>4</td>
</tr>
<tr>
<td><em>patati</em> ‘he falls’</td>
<td>5</td>
</tr>
<tr>
<td><em>pāteti</em> ‘he causes to fall’</td>
<td></td>
</tr>
</tbody>
</table>
Decausativization in Prakrits

• New causative formations were generated continuously (column 5).
• Old causative forms were continuously lexicalized and collapsed with simple transitive verbs (columns 4 and 3).
• In some cases, causatives derived from intransitive verbs merged with the original intransitive (because their causative suffix weakened semantically, or totally disappeared), so a first instance of lability was created (columns 3 and 2).
• With the decay of the middle voice, and the phonetic ambiguity of a part of passive forms, the valence decreasing formation became less and less productive (column 1).
• As a consequence, the agentive intransitive verbs tended to merge with the agentless ones, thus creating labile verbal forms (columns 2 and 1).
Lability in the Middle Indo-Aryan

jujjai ‘bounds’, but also ‘is bound’ (Prakrit)

allīyati ‘comes’, but also ‘brings’ (BHS, Prakrit)

bhañjati ‘breaks’, but also ‘becomes broken’ (BHS)

muñcati ‘frees’, but also ‘becomes free’ (BHS, Pāli)

vidhyati ‘shoots’, but also ‘flies’ (BHS, Pāñinīya)