Mind *-\textit{ya}- own business: 
On the passive/anticausative syncretism in Indo-Iranian

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\textit{ECIEC 43}

University of Georgia, Athens, July 1–3, 2024
Today’s problem: IIr. *-ya-

- Several different & disparate functions: denominal verb formation, primary (class IV) verbalizer, anticausative, imperfective passive ...

- Development of these functions from PIE & within IIr. unclear

“The ultimate relation between passives and anticausatives may not be resolvable based on the evidence of Sanskrit; the formal aspects of the Indo-European antecedents are not fully settled; and, as noted, the development of a distinct passive is an innovation (...) whose earlier history cannot be documented.” (Hock 2022: 186–7)
The bigger picture

- Unidirectionality of reanalysis: are both ANTICAUS $\rightarrow$ PASS and PASS $\rightarrow$ ANTICAUS viable “grammaticalization paths”, as claimed in the literature?
- Do argument & event structure changes also follow directional “grammaticalization paths”? Should we expect them to?
The bigger picture

- Unidirectionality of reanalysis: are both \textsc{anticaus} \textgreater \textsc{pass} and \textsc{pass} \textgreater \textsc{anticaus} viable “grammaticalization paths”, as claimed in the literature?

- Do argument & event structure changes also follow directional “grammaticalization paths”? Should we expect them to?

→ Unidirectionality would be extremely useful for comparative reconstruction of morphosyntactic properties of the proto-language.
Today’s goals

► Revisit the anticausative/passive syncretism of Indo-Iranian *-ya-verbs to argue that (uni)directionality holds for changes in the event structure/voice domain, contra claims that these verbs show evidence for counterdirectionality
  ▶ both ANTICAUS > PASS and PASS > ANTICAUS (Kulikov 2011, 2012; Hock 2019, 2022)

► While anticausative/inchoative morphology can become passive morphology (or rather, syncretic anticausative-passive morphology), the reverse is not true: PASSIVE ≠ ANTICAUSATIVE

► Indo-Iranian *-ya-forms are fully compatible with the well-documented ANTICAUS > PASS reanalysis once voice syncretism is taken into account and the relevant diagnostics for each context are adequately identified.

\[^1\text{Cf. Honeybone (2016): } \theta > f \text{ but } f \not> \theta.\]
The Voice cycle

- Diachronic generalization w.r.t. the rise of new voice-marking strategies: 
  \( v \)-related morphology/material base-generated in the \( vP \) (light verbs, verbalizers, object reflexives) is reanalyzed as belonging to the VoiceP

  - Halm 2020, Alexiadou 2021, Grestenberger 2023, Grestenberger & Kamil 2024

(1) Upwards Reanalysis and the Voice cycle

\[
\begin{array}{c}
\text{TP} \\
\text{T} \quad \text{AspP} \\
\text{Asp} \quad \text{VoiceP} \quad (\text{e.g., } \text{ACT/PASS}) \\
\text{Voice} \quad \text{vP} \quad (\text{e.g., } \text{CAUS/INCHOA}) \\
\text{v} \quad \sqrt{v}
\end{array}
\]
Voice syncretism

(2) Voice Syncretisms: Situations in which distinct syntactic alternations (e.g. passive and reflexive) are realized with identical morphology (Embick 1998)

- Voice syncretism is widespread among the world’s languages
  - Haspelmath 1990; Kemmer 1993; Alexiadou & Doron 2012; Zúñiga & Kittilä 2019; Bahrt 2021; Inglese 2021; Oikonomou & Alexiadou 2022 ...

- Passive morphology is almost always syncretic: only 2 out of the 222 languages in the sample of Bahrt (2021) have a non-syncretic passive

(3) Passive syncretism (Haspelmath 1990; cit. after Bahrt 2021: 57)

<table>
<thead>
<tr>
<th>Language</th>
<th>Marking</th>
<th>REFL</th>
<th>RECP</th>
<th>ANTC</th>
<th>PASS</th>
<th>ANTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Udmurt</td>
<td>-šk</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Greek</td>
<td>*</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>'O'odham</td>
<td>*</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Tigre</td>
<td>tɔ-</td>
<td>+</td>
<td>(+)</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Motu</td>
<td>he-</td>
<td>(+)</td>
<td>(+)</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Kanuri</td>
<td>tɔ-, -tɔ</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin</td>
<td>*</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slave</td>
<td>d-</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rukai</td>
<td>ki-</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worrorra</td>
<td>-iŋu</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Tuareg</td>
<td>mɔ-</td>
<td>+</td>
<td></td>
<td>+</td>
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<tr>
<td>Danish</td>
<td>-s</td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
<td></td>
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<tr>
<td>Uyghur</td>
<td>-il</td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Nimboran</td>
<td>-da</td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>
Voice syncretism: diachrony

Example: Reanalysis of Lat. \( s\tilde{e} \) > Romance \( s\tilde{e} \) from reflexive pronoun/theme > “argument expletive” (Schäfer 2017)

\[
(4) \quad [vP \ s\tilde{e}_{[D,\text{arg}]}] \rightarrow [\text{Voice}_{\text{expl}}P \ s\tilde{e}_{[D]}] \rightarrow [\text{Voice}_{\text{agent}}P \ s\tilde{e}_{[D]}] \quad \text{“SE-passive”}
\]
Voice syncretism: diachrony

Example: Reanalysis of Lat. sē > Romance se from reflexive pronoun/theme > “argument expletive” (Schäfer 2017)

(4) \[ vP \text{sē}_{[\text{D, arg}]} \rightarrow \text{Voice}_{[\text{expl}]}P \text{se}_{[\text{D}]} \rightarrow \text{Voice}_{\text{agent}P} \text{se}_{[\text{D}]} \]  

“SE-passive”

(5) 

\[
\begin{aligned}
\text{VoiceP} \\
\text{Voice} \\
\text{Voice}_{[\pm P]} \\
\text{vP} \\
\text{SE} \quad v \\
\text{v} \quad \checkmark
\end{aligned}
\]
Voice syncretism: diachrony

Example: Reanalysis of Lat. $sē$ > Romance $SE$ from reflexive pronoun/theme > “argument expletive” (Schäfer 2017)

(4) \[ [vP \ sē[D,\text{arg}]] \rightarrow [\text{Voice}_{\text{expl}}P\ sē[D]] \rightarrow [\text{Voice}_{\text{agent}}P\ sē[D]] \]

“SE-passive”

(5) VoiceP
   \[\text{Voice}_{\pm D} \rightarrow \text{vP} \leftarrow \text{SE} \leftarrow \text{v} \leftarrow \sqrt{\text{v}} \]

Voice syncretism arises diachronically when the innovative construction keeps the older function

E.g., Engl. *get* ‘obtain’ > *cause* > *become* > *pass* (e.g., Fleisher 2006).

(6) a. Sally got drunk
    b. Sally got hit (by a car/by a stranger)
Background: Anticausatives

- spontaneous event/change of state without an external cause(r) (≈ agent)

(7) Marked vs. unmarked anticausatives

<table>
<thead>
<tr>
<th></th>
<th>marked</th>
<th>unmarked</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>s’agrandir</td>
<td>cuire</td>
</tr>
<tr>
<td></td>
<td>s’améliorer</td>
<td>fondre</td>
</tr>
<tr>
<td></td>
<td>se couvrir</td>
<td>grandir</td>
</tr>
<tr>
<td></td>
<td>‘become bigger’</td>
<td>‘cook’</td>
</tr>
<tr>
<td></td>
<td>‘improve’</td>
<td>‘melt’</td>
</tr>
<tr>
<td></td>
<td>‘become covered’</td>
<td>‘grow’</td>
</tr>
<tr>
<td>German</td>
<td>sich vergrößern</td>
<td>schmelzen</td>
</tr>
<tr>
<td></td>
<td>sich ausdehnen</td>
<td>kochen</td>
</tr>
<tr>
<td></td>
<td>sich verändern</td>
<td>austrocknen</td>
</tr>
<tr>
<td></td>
<td>‘enlarge’</td>
<td>‘melt’</td>
</tr>
<tr>
<td></td>
<td>‘extend’</td>
<td>‘cook’</td>
</tr>
<tr>
<td></td>
<td>‘change’</td>
<td>‘dry out’</td>
</tr>
<tr>
<td>Modern</td>
<td>kommatiazo-me</td>
<td>asprizo</td>
</tr>
<tr>
<td>Greek</td>
<td>miono-me</td>
<td>kokinizo</td>
</tr>
<tr>
<td></td>
<td>veltiono-me</td>
<td>klino</td>
</tr>
<tr>
<td></td>
<td>‘tear’</td>
<td>‘whiten’</td>
</tr>
<tr>
<td></td>
<td>‘decrease’</td>
<td>‘redden’</td>
</tr>
<tr>
<td></td>
<td>‘improve’</td>
<td>‘close’</td>
</tr>
</tbody>
</table>
Functions of *-yá-

Indo-Iranian *-ya- is found in five different contexts:

1) Denominal verbs

   a. Vedic

<table>
<thead>
<tr>
<th>*yá-</th>
<th>‘haggles’</th>
<th>*yá-</th>
<th>‘price’</th>
</tr>
</thead>
<tbody>
<tr>
<td>vasna-</td>
<td>‘price’</td>
<td>vasná-</td>
<td>‘price’</td>
</tr>
<tr>
<td>gop¯a-</td>
<td>‘protects’</td>
<td>go-pá</td>
<td>‘cattle-protector’</td>
</tr>
<tr>
<td>bhišaj-</td>
<td>‘heal’</td>
<td>bhišáj-</td>
<td>‘healer’</td>
</tr>
</tbody>
</table>

   b. Avestan

<table>
<thead>
<tr>
<th>*iiequence-</th>
<th>‘desires fame’</th>
<th>*iiequence-</th>
<th>‘fame’</th>
</tr>
</thead>
<tbody>
<tr>
<td>srāuuah-</td>
<td>‘fame’</td>
<td>srāuuah-</td>
<td>‘fame’</td>
</tr>
<tr>
<td>vāstra-</td>
<td>‘grazes’</td>
<td>vāstra-</td>
<td>‘pasture’</td>
</tr>
<tr>
<td>bišaz-</td>
<td>‘heal’</td>
<td>*bišaz-</td>
<td>‘healer’</td>
</tr>
</tbody>
</table>

Verbalizing function of *-yá- (< *-ié/ó-) also in the Anatolian, Greek, Italic, Celtic, Germanic, Balto-Slavic ... branches of IE, so very likely one of the oldest/inherited functions of this suffix.
IIr. *-yá-

2) Root-derived non-alternating middle verbs (= *media tantum*)

<table>
<thead>
<tr>
<th>Vedic</th>
<th>Avestan</th>
<th>IE</th>
</tr>
</thead>
<tbody>
<tr>
<td>man-yá-te</td>
<td>ma²n-iie-tē</td>
<td>‘thinks’ Gk. µανομαι, OIr. -mainethar</td>
</tr>
<tr>
<td>mri-yá-te</td>
<td>mir-iie-te</td>
<td>‘dies’ Lat. morior, OCS u-mъरjetъ</td>
</tr>
<tr>
<td>búdh-ya-te</td>
<td>bū²δ-iie-te</td>
<td>‘awakes’</td>
</tr>
<tr>
<td>vac-yá-te</td>
<td>vaś-iie-tē</td>
<td>‘moves about, jumps’</td>
</tr>
<tr>
<td>já-ya-te</td>
<td>za-ii-a-</td>
<td>‘is born’ OIr. (rel.) gainethar</td>
</tr>
<tr>
<td>pác-ya-te</td>
<td>pa²δ-iia-</td>
<td>‘falls, steps down’</td>
</tr>
</tbody>
</table>

- Root (mostly) R(Ø)
- The accent is sometimes on the root, sometimes on the suffix — the latter arguably reflects the older situation (LIV²)
- This class has solid correspondences between Vedic and Avestan, as well as cognates in other IE languages → inherited
  - Jasanoff (2003) links this class to the IIr. reflexes of “stative-intransitive” *h₂e*-conjugation aorists
IIr. *-yá-

3) Root-derived non-alternating active verbs (= *activa tantum*)

<table>
<thead>
<tr>
<th>Vedic</th>
<th>Avestan</th>
</tr>
</thead>
<tbody>
<tr>
<td>náś-ya-ti</td>
<td>nas-iie(^i)-ti ‘disappear’</td>
</tr>
<tr>
<td>pú-ya-ti</td>
<td>pu-iie-ti       ‘become rotten’</td>
</tr>
<tr>
<td>ríś-ya-ti</td>
<td>(^i)riś-iie(^i)-ti ‘become damaged’</td>
</tr>
<tr>
<td>tr̥p-ya-ti</td>
<td>(^i)traf-iie(^i)-ti ‘steal’</td>
</tr>
<tr>
<td>dṛ̥h-ya-ti</td>
<td>friθ-iie(^i)-ti ‘become rotten’</td>
</tr>
<tr>
<td>kṣūḍh-ya-ti</td>
<td>(^i)riθ-iie(^i)-ti ‘die’</td>
</tr>
<tr>
<td>śūṣ-ya-ti</td>
<td>‘become dry’</td>
</tr>
<tr>
<td>púṣ-ya-ti</td>
<td>‘bloom’</td>
</tr>
</tbody>
</table>

▶ R(Ø), accent on the root

▶ Some Vedic–Avestan correspondences, but more productive in Indic (than Ir.)

▶ Semantically clear subcategory: intransitive (unacc.?) change-of-state/inchoative verbs (‘become X’)

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July 2, 2024
IIr. *-yá-

3) Root-derived non-alternating active verbs (= *activa tantum*)
   ▶ Some cognates with *-i-e/o-* outside Indo-Iranian (type reconstructed with suffix accent in LIV²), with a “Caland-ish” (property concept) flavour (Rau 2009: 140–1, 2013):

(8) a. śús-ya-ti ‘become dry’: αὕω ‘dry’ (Hdn.; tr.), OCS i-sbraq ‘become dry’; adj. Gk. αὖος; Lith. saũsas
   b. třš-ya-nt- ‘thirsty’: Go. þaursjan ‘be thirsty’; adj. Ved. třšu- ‘eager’
   c. ní jas-ya-, dás-ya-ti ‘diminish, perish’ (*sg^2 esh_2*): OCS u-gašetþ ‘go out, become extinguished’, adj.: Ved. á-jasra- ‘unextinguishable’
IIr. *-yá-

4) Syncretic anticausative/passive verbs

a. Vedic

<table>
<thead>
<tr>
<th>Vedic</th>
<th>Anticausative Reading</th>
<th>Passive Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>muc-ya-te</td>
<td>‘gets free’</td>
<td>muc-ýa-te</td>
</tr>
<tr>
<td>pác-ya-te</td>
<td>‘becomes ripe’</td>
<td>pac-ýa-te</td>
</tr>
<tr>
<td>chíd-ya-te</td>
<td>‘tears’ (itr.)</td>
<td>chid-ýa-te</td>
</tr>
<tr>
<td>kṣí-ya-te</td>
<td>‘diminish, perish’</td>
<td>kṣí-ýa-te</td>
</tr>
<tr>
<td>jí-ya-te</td>
<td>‘suffers loss’</td>
<td>jí-ýa-te</td>
</tr>
<tr>
<td>pūr-ya-te</td>
<td>‘become full’</td>
<td>pūr-ýa-te</td>
</tr>
</tbody>
</table>

b. Avestan

<table>
<thead>
<tr>
<th>Avestan</th>
<th>Anticausative Reading</th>
<th>Passive Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>pir-iie-te</td>
<td>‘gets even’</td>
<td>pir-iie-te</td>
</tr>
</tbody>
</table>

- Anticausative reading tends to have root accent, passive reading suffix accent (thus, e.g., Gonda 1951) — but Kulikov (2012) argues that accentuation varies according to manuscript tradition/school rather than meaning (cf. Hock 2022)

- This ambiguity is only found with causative alternation/achievement verbs, not with agentive accomplishment verbs, and it isn’t really there in Avestan (but that may be an artifact of the attestation)
IIr. *-yá-

4) Syncretic anticausative/passive verbs: Indo-Iranian type; but the anticaus. readings have cognates outsides Indo-Iranian

- Often forms the oppositional anticausative to a transitive nasal infix-class causative

<table>
<thead>
<tr>
<th>Ved. -ya-</th>
<th>IE cognates</th>
<th>Ved. -n(a)-</th>
<th>IE cognates</th>
</tr>
</thead>
<tbody>
<tr>
<td>míc-ya-te</td>
<td>Gk. ἀπο-μύσσω</td>
<td>muñcáti</td>
<td>Lat. ē-mungō, Lith. munkū ‘release, become/set free’</td>
</tr>
<tr>
<td>chíd-ya-te</td>
<td>Gk. σχίζω (tr.)</td>
<td>chinátti</td>
<td>Lat. scindō ‘split, tear’ (tr.)</td>
</tr>
<tr>
<td>kśi-ya-te</td>
<td>Hsch. φθίει</td>
<td>kśinātī</td>
<td>Gk. φθίνω ‘diminish/destroy’</td>
</tr>
<tr>
<td>pūr-ya-te</td>
<td>Khot. pīr-</td>
<td>pṛnātī</td>
<td>OAv. pərənā- ‘become full/fill’</td>
</tr>
<tr>
<td>ſi-ya-te</td>
<td>YAv. -z-iia-</td>
<td>jinātī</td>
<td>YAv. zināt ‘suffers/inflicts loss’</td>
</tr>
</tbody>
</table>
IIr. *-yá-

5) Passive verbs

<table>
<thead>
<tr>
<th>Vedic</th>
<th>Avestan</th>
</tr>
</thead>
<tbody>
<tr>
<td>kṛi-ya-te</td>
<td>kir-iiia-</td>
</tr>
<tr>
<td>bhṛi-ya-te</td>
<td>bār-iiia-</td>
</tr>
<tr>
<td>han-ya-te</td>
<td>jan-iiia-</td>
</tr>
<tr>
<td>strī-ya-te</td>
<td>str-iiia-</td>
</tr>
<tr>
<td>śrū-ya-te</td>
<td>sru-iiia-</td>
</tr>
<tr>
<td>kṛt-ya-te</td>
<td>kṛerōθ-iiia-</td>
</tr>
</tbody>
</table>

- is made
- is brought, carried
- is killed
- is dispersed
- is heard
- is cut
- be made
- be carried
- be killed
- be dispersed
- be heard
- be cut

- R(Ø), accent canonically on the suffix
- Obligatory middle endings in Vedic; Avestan -iiia- varies between active and nonactive endings, (9).
- Indo-Iranian cognates, but not in other IE branches
Passive -"ii"a- in Avestan

(9) Avestan -"ii"a-passives (Kellens 1984: 125–30)

a. active endings

\( kir-"ii"a- \) ‘be made’ \( \sqrt{kar} \) ‘make’

\( k\omega \rho \theta-"ii"a- \) ‘be cut’ \( \sqrt{kart} \) ‘cut’

\( jan-"ii"a- \) ‘be killed’ \( \sqrt{jan} \) ‘kill’

\( da-"ii"a- \) ‘be given’ \( \sqrt{d\ddot{a}} \) ‘give’

\( yez-"ii"a- \) ‘be sacrificed’ \( \sqrt{yaz} \) ‘sacrifice’

b. nonactive endings

\( ba'\iota-"ii"a- \) ‘be carried’ \( \sqrt{bar} \) ‘carry’

\( sru-"ii"a- \) ‘be heard’ \( \sqrt{sru} \) ‘hear’

\( x'ar-"ii"a- \) ‘be eaten’ \( \sqrt{x'ar} \) ‘eat’

\( \ddot{a}f-"ii"a- \) ‘be reached’ \( \sqrt{\ddot{a}p} \) ‘reach’

\( g\omega \rho \varepsilon u-"ii"a- \) ‘be seized’ \( \sqrt{grab} \) ‘seize’
Passive -\textit{ii-a} in Avestan

(9) Avestan -\textit{ii-a}-passives (Kellens 1984: 125–30)

<table>
<thead>
<tr>
<th>Active Endings</th>
<th>Nonactive Endings</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{kir-ii-a} – ‘be made’</td>
<td>\textit{ba'r-ii-a} – ‘be carried’</td>
</tr>
<tr>
<td>\textit{kərəθ-ii-a} – ‘be cut’</td>
<td>\textit{sru-ii-a} – ‘be heard’</td>
</tr>
<tr>
<td>\textit{jan-ii-a} – ‘be killed’</td>
<td>\textit{xə'ar-ii-a} – ‘be eaten’</td>
</tr>
<tr>
<td>\textit{da-ii-a} – ‘be given’</td>
<td>\textit{af-ii-a} – ‘be reached’</td>
</tr>
<tr>
<td>\textit{yez-ii-a} – ‘be sacrificed’</td>
<td>\textit{gərəw-ii-a} – ‘be seized’</td>
</tr>
</tbody>
</table>

- Some passive stems are attested with both active and nonactive endings, e.g., the ones from $\sqrt{kar}$ ‘make’, $\sqrt{star}$ ‘throw down’, $\sqrt{zan}$ ‘beget’ ...
- It’s not always clear which one is older and which is younger.
- Of the ca. 25 passive stems attested in Avestan, only two are attested already in Old Avestan, and both happen to take the middle endings.
OAv. passive -iia-

(10) \[tōi ābiiā bairiīāntsē vaṇhōus ā dēmānē manṇhō\]
    “Despite these two [? Karapans & Kavis?], they \textbf{shall be brought} (in)to the home of good thought.” (Y. 32.15)

\[\text{Problem: } R(a)\]

(11) \[ā mā [ā/īdūm vaḥiśtā (…) aṣā vohū manṇhā yā sruiiē parē magaonō\]
    “Come hither to me, You best ones ... with truth, (and) with good thought for which I am heard beyond the sacrificers” (Y. 33.7; Humbach 1991)


\[\text{(cp. Ved. śṛṇvē) > *sruiiai}\]
Interim summary

5 types of *-ya-:

1) Denominal verbs
2) root-derived non-alternating middles (mostly itr.)
3) root-derived non-alternating actives (itr. CoS/inchoatives)
4) syncretic anticausatives/passives (obligatory middle endings)
5) passives (obligatory middle endings in Vedic; variation in Avestan)

Given that all contexts except for passive are found outside of Indo-Iranian, this looks like a clear-cut case of ANTICAUS > PASS reanalysis that resulted in a new, syncretic passive construction in Indo-Iranian.

- ANTICAUS/INCHOATIVE > PASSIVE grammaticalization path is well-established in the typological literature (Kuteva et al. 2019; Grestenberger & Kamil 2024)
- Therefore it seems plausible that 2) and/or 3) gave rise to 4)–5) through a reanalysis of -ya- as a passive marker.
ANTICAUS VS. PASS IN Indo-Iranian  ANTICAUS > PASS?

But there are several problems:

- While the verbs in class 3) take the active set of endings, consistent with the behavior of intransitive CoS-verbs cross-linguistically (Alexiadou & Anagnostopoulou 2004; Schäfer 2008), 4)–5) always take the middle endings in Vedic.

- But 5), the canonically passive class, varies between active and middle endings in Avestan, and it’s not clear why.

(12) Middle ýá-passives in Vedic vs. active iia-passives in Avestan

<table>
<thead>
<tr>
<th>Vedic</th>
<th>Avestan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>kri-ýá-te</td>
<td>kir-iie-ṭi</td>
<td>‘is made’</td>
</tr>
<tr>
<td>kṛt-ýá-te</td>
<td>kərəθ-iīā-t</td>
<td>(subj.) ‘is/shall be cut’</td>
</tr>
</tbody>
</table>

- So either class 2) gave rise to the passive reading and Iranian has innovated active endings, or class 3) did and Vedic has innovated. Or maybe both classes played a role?
Further problems

Hock (2019, 2022) argues that since it is impossible to determine for each individual stem of type 4) whether the anticausative or the passive reading is the older one, \textsc{anticaus} > \textsc{pass} vs. \textsc{pass} > \textsc{anticaus} cannot be decided/is ambiguous.

Kulikov (2011) argues that there is evidence for a “counterdirectional” development of \textsc{pass} -\textit{ya}- > \textsc{anticaus} -\textit{ya}- via an intermediate impersonal (passive) stage.

Research questions:

- Can we disambiguate the passive from the anticausative reading of *-\textit{ya}- and determine which one is older?
- Can we show that passive -\textit{ya}- became anticausative -\textit{ya}- in late Vedic (e.g., for a specific class of verbs)?
  - specifically, an anticausative \textit{marker}, not just individual “lexicalized” verb stems
- Was the passive reading originally associated with the nonactive or the active endings?
Passive agents with -yá-passives

Vedic: ca. 25 overt agent phrases with yá-passives (Jamison 1979a)

(13) RV 3.1.21a-b:

(...)

jātāvedā  viśvāmitrebhir  idh-ya-te

Jātavedas.NOM.SG  Viśvāmitra.INSTR.PL  kindle-IPFV.PASS-3SG.NACT

á- jásraḥ

NEG-exhaustible.NOM.SG

“Jātavedas, the inexhaustible, is kindled by the Viśvāmitras”

(14) RV 9.81.12d:

sū ṣāyudhāḥ  sotībhīḥ  pū-ya-te  vīṣā

of.good.weapons.NOM  pressers.INSTR  purify-PASS-3SG.MID  bull.NOM

“The bull of good weapons is purified by the pressers.”

(transl. Jamison & Brereton 2014)
Passive agents with -yá-passives

Avestan:

(15) Yt. 1.29 (YAv.):

ārma²tōiš do²θrābiia auuā-str-iia-ta ma³riiō
Ārmaiti.gen eye.instr.du down-throw-pass.ipv-3sg.nact villain.nom

“le vaurien est abattu par les yeux d’Ārmaiti” (Kellens 1984: 128)/“the villain is brought down by/through the eyes of Ārmaiti”

▶ No OAv. ex. with animate agents in the passive (but there are only two passive iia-forms attested in OAv.) – in YAv., (15) is closest to an animate agent (though instr. dual is syncretic with dat. and abl.); a few examples with clear instrument/means phrases (only with passives, not anticaus.)
Instrument adjuncts with -yá-passives

Instrument/means phrases generally considered a diagnostic for passive rather than anticausative reading

- Engl. *The ship was sunk with/by a torpedo* vs. *The ship sank with/by a torpedo*

(16) Vedic, RV 9.85.5a

```
kanikradat kaláše góbhir aj-ya-se
roar.INT.PTCP.ACT.NOM.SG.M pot.LOC cow.INSTR.PL anoint-PASS-2SG.MID
```

“Ever roaring, you are anointed [driven] with cows (= milk, LG) in(to) the tub” (Jamison & Brereton 2014)

(17) Avestan, V. 4.50 (YAv.):

```
aiaŋhaēnāiš karētaīš azdibiš pā’ti
metal.INSTR.PL knife.INSTR.PL bone.INSTR.PL towards.PP
auua.kērēθ-ii-āt
down.cut-PASS.IPFV-SUBJ.3SG.ACT
```

“he shall be cut down to the bones with metal knives”
Other diagnostics


- whereas in anticausatives the controller is the surface subject (Hock 2019, 2022)

(18) na vā [ PRO$_i$ a-hiṅ-ṛṛ-t-ya ] sāma $gī-ya-te$

Neg PTCL Neg-hiṅ-make-CVB sāman.NOM.SG.N chant-PASS-3SG.MID

“For the sāman is not chanted (by a person$_i$) [ PRO$_i$ not having made (the sound) hiṅ ].” (ŚB 1.4.1.1; cit. after Hock 2019)
PASS > ANTICAUS?

Bahrt (2021) lists only two potential examples of PASS > ANTICAUS (implicitly PASS > syncretic Voice)

▸ Proto-Tungusic *-bu PASS & CAUS > Evenki -v PASS, CAUS & ANTICAUS (Malchukov & Nedjalkov 2015)

▸ But Bahrt himself points out that this could also be a CAUS > ANTICAUS development (cf. Engl. get) via a causative-reflexive stage (cf. Yap & Iwasaki 2003, Yap & Ahn 2019 on CAUS > PASS vs. CAUS > MID)
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- Vedic -yá- (Kulikov 2011): PASS > ANTICAUS via agentless/impersonal passives of verbs of perception (and motion)


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<thead>
<tr>
<th>Root</th>
<th>-ya-stem</th>
<th>a. PASS reading</th>
<th>b. ANTICAUS reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>dṛś</td>
<td>dṛś-yá-</td>
<td>‘be seen’</td>
<td>‘be visible, appear’</td>
</tr>
<tr>
<td>śrū</td>
<td>śrū-yá-</td>
<td>‘be heard’</td>
<td>‘be audible, famous’</td>
</tr>
<tr>
<td>vid</td>
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<td>drś</td>
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▶ By Kulikov’s own translation, these are not anticausatives.
▶ generic passive or “dispositional middle” (Alexiadou & Doron 2012)
PASS > ANTICAUS?

- Hock (2019, 2022) criticizes that it is not clear from the passages cited when Kulikov chooses the passive vs. the "anticausative" reading.

- Moreover, the dispositional middle reading of perception verbs is also found in nonactive forms of these verbs that do not take -ya-, such as (20)—so if anything a lexical change of specific roots, not of a functional morpheme.

(20) \[ \text{ádha bahú cit táma ūrmyāyās tirāḥ śocīsā} \]
so dense.ACC.N even darkness.ACC.N night.GEN across glow.INSTR
\[ \text{dadṛś-e pāvakāḥ} \]
see.PF-3SG.MID pure.NOM

"so even across the dense darkness of the night the pure one is visible with his flame." (RV 6.10.4d, transl. Jamison & Brereton 2014)
PASS > ANTICAUS?

The dispositional middle reading is in general associated with nonactive morphology in languages with voice syncretism, (22).

- Lekakou 2005; Alexiadou & Doron 2012; Alexiadou et al. 2015

(21) a. migdal ayfel lo nir’a mi-šam
tower Eiffel not see.SMPL.MID from-there
“The Eiffel tower was not visible from there/was not seen from there”
(Hebrew, Alexiadou & Doron 2012: 14)

b. afto to vivlio diavazete efkola.
this the book reads.NONACT easily
“This book reads easily.” (Modern Greek, Alexiadou & Doron 2012: 16)

- Crucially, in dispositional middles “the external argument is eventually bound in the context of a possibility modal” (Alexiadou & Doron 2012: 26), while there is no external argument in anticausatives

- Other classes of verbs cited by Kulikov (uc-yá-te ‘is said/sounds, is called’; motion verbs like sic-ya-te ‘pours/is poured’, kīr-ya-te ‘scatters/is scattered’) are either also of this type or instantiate the passive/anticaus. syncretism (type 4)).
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→ There is no evidence for PASS > ANTICAUS in Indo-Iranian
Good reasons to assume that passive use of -ya- developed from anticausative use of -ya-:

- Typologically well-established “grammaticalization path” (Kuteva et al. 2019; Bahrt 2021; Inglese 2022, 2023)
- Follows from the expected directionality of the voice cycle (v/argument alternating morphology → voice morphology)
- Suggested by internal reconstruction: passive use of -ya- only in Indo-Iranian, intransitive CoS verbs in -ya- (< *-ie/o-) reconstructable for PIE.
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What specifically changed in these constructions?
ANTICAUS > PASS

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What specifically changed in these constructions?
- Proposal: anticausatives were reanalyzed as passives in contexts in which they could be construed as either spontaneous or externally caused
- Ambiguity of instrumental adjuncts as crucial context for this reanalysis
Two types of anticausatives

Both the marked and the unmarked anticausatives were compatible with event-modifying instrumental cause/manner NPs:

(22) \( \text{śvātrēṇa yāt pitrór } \text{múc-ya-se } \text{pári} \)

swelling.INSTR when father.LOC.DU release-YA-3SG.MID on “when you (Agni) get free through swelling on your parents (the kindling sticks).” (RV 1.31.4c; Hock 2022: 173)

- Jamison & Brereton (2014): “when through your swelling in your two parents [=the kindling sticks] you are set free”

(23) \( \text{yathā phena udak-ena } (...) \text{ni-jas-ya-ti} \)

as foam.NOM.SG water-INSTR PRVB-disappear-V.IPFV-3SG.ACT “Just as the foam (...) disappears by means of water” (AVP 4.16.6; Kulikov 2012: 537)
Reanalysis: instrumental NPs

- Proposal: the event-modifying instrumental NP was reanalyzed as adjunct to VoiceP → “inanimate agent”
- This resulted in type 4), the “muc-class” with ANTICAUS/PASS syncretism

(24) ñndo yád ádríbhiḥ su-tá-ḥ
  drop.VOC when stone.INSTR.PL press-PTCP.PASS-NOM.SG.M
  (RV 9.24.5a)

- Jamison & Brereton 2014: “O drop, when **pressed** by the **stones** ...” (inanim. agent)
- Geldner 1951: “O Saft, wenn du **mit Steinen** **ausgepresst**” (instrument)
(25) śvātrēṇa (...) mūc-ya- ‘get free through swelling’/‘be released by swelling’

VoiceP

NP

śvātrēṇa

VoiceP

vP

√MUC

v

-ya-
Reanalysis: instrumental NPs & passives

- A VoiceP adjunct implies Voice_{[-D]} (see Appendix) is present in the structure, hence the obligatory middle endings of this type
- Further extension to agentive roots + animate agent instrumental NP → type 5), -yá-passives

(26) a. \textit{viśvāmitre bhīr idh-ya-te}
Viśvāmitra.INSTR.PL kindle-YA-3SG.MID
“he is kindled by the Viśvāmitras” (RV 3.1.21)

b. 

```
  VoiceP
     /\  
    /   \ 
   NP_INSTR \  
            viśvāmitre bhīr 

  VoiceP
     /\ 
    /  
   VP \ 
      v|  
          -ya-
```
Passive agents in inflectional/middle-marked passives

- A minor “extension”, since instrumental agent NPs were already independently used in inflectional/middle-marked passives, where instr. marking of agents was the inherited strategy (Jamison 1979b; Grestenberger & Fellner 2023)

(27) evá agnýr gótamebhir ṛtāvá víprebhir
thus Agni.NOM Gotama.INSTR.PL truthful.NOM inspired.INSTR.PL

astos-ṭa játávedāḥ (...) praise.PFV-3SG.NACT Játavedas.NOM

“Thus has Agni, the truthful one, the Játavedas, been praised by the Gotamas, inspired poets” (Vedic, RV 1.77.5a-b; transl. Jamison & Brereton 2014)

(28) mazdā (...) yā zī vānuṛerṣ-oī
wise.NOM.SG REL.PRON.NOM.ACC.N for do.PF-3SG.NONACT

pairī. cilīt daēuui-ś-cā mašii-ś-cā
around.consider.2SG.AOR.OPT daēva.INSTR.PL-and mortal.INSTR.PL

“May the Wise One (...) consider (what) has been perpetrated (all) around (here) by Daēvas and mortals” (Avestan, Y. 29.4; transl. Humbach 1991: 121)
Avestan -iia-

- If reanalysis of intrumental NPs in marked anticausatives is the source of the *-yá-passive, this would suggest that the Avestan active endings of the iia-passive are an innovation.

- Possibly the result of loss of the active/nonactive alternation on the endings & the reanalysis of -iia- as a designated passive Voice head (≈ PassP of Bruening 2013)

(29)

Parallel development in Old Persian (West Iranian) and Epic Sanskrit/middle Indic
Old Persian & Epic Sanskrit *-ya-passives

(30) Old Persian passives (Skjærvø 2020)

\[
\begin{aligned}
a-kar-iy-Ø & \quad a-bar-iy-Ø \\
PST-do-PASS-3SG.ACT & \quad PST-carry-PASS-3SG.ACT \\
‘was done’ & \quad ‘was carried’
\end{aligned}
\]

(31) Epic Sanskrit passives (Oberlies 2003)

\[
\begin{aligned}
pac-ya-ti & \quad muc-ya-ti \\
cook-PASS-3SG.ACT & \quad release-PASS-3SG.ACT \\
‘is cooked’ & \quad ‘is released’
\end{aligned}
\]

▶ In both cases, this coincides with an ongoing loss of the active–nonactive alternation on the endings
Conclusion

- Old Indo-Iranian (*)-yá-passives as a textbook example of the ANTICAUS > PASS reanalysis, resulting in a descriptively well-established type of **voice syncretism**

- **Directionality/voice cycle:**
  - vP adjunct → VoiceP adjunct/argument (Proto-Indo-Iranian)
  - v → Voice/Pass (Proto-Iranian, or separate innovations of Western and Eastern branches?)
  - Loss of the Spell Out condition triggered by Voice[±D] and generalization of the *active* endings in the *ya*-passive (Old Persian, Avestan, Sanskrit)

- No evidence for PASS > ANTICAUS once voice syncretism and “dispositional middle” readings are excluded
Thank you!

FWF V850-G “The diachrony of verbal categories and categorizers”
(https://lauragrestenberger.com/categorizers-in-diachrony)
Marked anticausatives

(32)  $\text{múc-ya-te}$ (NACT) ‘becomes free’ (act. $\text{muñc-á-ti}$ ‘releases sbdy/sth’)

$$
\begin{array}{c}
\text{T} \\
\text{Asp} \\
\text{Voice} \\
\text{vBECOME} \\
\sqrt{\text{MUC}} \\
\text{vBECOME} \\
\text{-ya-} \\
\text{Voice[-D]} \\
\text{Asp[-PFV]} \\
\text{T[-PST]} \\
\text{Agr[3,SG]} \\
\text{-te} \\
\text{T} \\
\end{array}
$$
Marked anticausatives

This class surfaces with nonactive morphology through the general Spell-Out condition that holds for the T/Agr endings in Vedic/Indo-Iranian (Grestenberger 2021):

(33) Spell-Out condition on nonactive morphology (Alexiadou et al. 2015: 101–2, Embick 1998, 2004a)

\[ \text{Voice} \rightarrow \text{Voice[NonAct]}/_{\_} \text{No NP specifier} \]

More formally: a condition on the exponence of T/Agr:

(34) Spell-Out condition on nonactive morphology

\[ T/\text{Agr}[\phi, \pm \text{past}, Q] \leftrightarrow T/\text{Agr}[\phi, \pm \text{past}, \text{NONACT}]/\text{Voice}_{[-D]}(...)^{\_} \]

- active morphology = Elsewhere
- in nonactive anticausatives, Voice is semantically empty \(\rightarrow \) “expletive Voice” (Schäfer 2008, 2009, 2017)
Unmarked anticausatives

Unmarked anticausatives/CoS verbs have no Voice layer → active morphology by Elsewhere

(35) náś-ya-ti (ACT) ‘disappears’

\[
\begin{align*}
T \\
& \quad \text{Asp} \\
& \quad \quad v\text{BECOME} \\
& \quad \quad \sqrt{\text{NAŚ}} \\
& \quad \quad \quad -yá- \\
& \quad \quad \text{Asp\[-PFV\]} \\
& \quad \quad \quad T\[-PST\] \\
& \quad \quad \quad \quad \text{Agr\[3,sg\]} \\
& \quad \quad \quad \quad \quad -ti
\end{align*}
\]
Passive agents in inflectional/middle-marked passives

(36) Synthetic I/inflectional passive, Vedic/Avestan

a. $Y_{\text{Nom}} \ (X_{\text{Instr}}) \ stav-a-n\text{-}te$  
   praise-IPFV-3PL.NONPST.NACT  
   “Y are praised (by X)”

b. 

```
    AspP
     /\   
    Asp j
    /\   /
   VoiceP t_j
   /\   /
  NP_{Instr} t_i
   (...) v
    √stav v
    | -a-
   VoiceP Voice[-D]
    /\   /
   Asp_{PFV} T[-PST]
    /\   /
   Agr[3,PL] -nte
    /\   /
   T
    /\   /
   NP_{Nom} T
     /\   /
    AspP
```
References I


References II


References III


Honeybone, Patrick. 2016. Are there impossible changes? $\theta > f$ but $f \not> \theta$. Papers in Historical Phonology 1. 316–358.


