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The Vedic root variants of the type \( \text{CaC}/(C)\tilde{a} \): Morphophonological features and syntactic patterns

Leonid Kulikov

Abstract: The present paper offers a systematic analysis of the Vedic root pairs of the type \( i(ay) \) ‘go’ // \( y\tilde{a} \) ‘drive’ or \( t\tilde{f}(tar) \) ‘pass’ // \( \text{tr} \tilde{a} \) ‘protect, rescue’ (labelled \( C- \) and \( \tilde{a}- \) verbs), concentrating on their syntactic features. It will be argued that \( \tilde{a}- \) verbs generally attest lesser syntactic flexibility, being employed either only/mostly in intransitive usages, or only/mostly in transitive usages (non-diffuse type). The corresponding \( C- \) verbs typically are more diffuse (= more flexible in transitivity), cf. \( y\tilde{a} \) (intransitive) vs. \( i(ay) \) (intransitive and transitive); \( \text{tr} \tilde{a} \) (transitive) vs. \( t\tilde{f} \) (intr. and transitive).

1. The \( \text{C}/\tilde{a} \)-alternation: a preliminary survey

The Vedic verbal lexicon contains some twenty root pairs of the type \( i(ay) \) ‘go’ // \( y\tilde{a} \) ‘drive’, \( \text{gam} \) ‘go’ // \( \text{ga} \tilde{t} \) ‘tread’, \( t\tilde{f}(tar) \) ‘pass’ // \( \text{tr} \tilde{a} \) ‘protect, rescue’, \( \text{dham} \) // \( \text{dhm} \tilde{a} \) ‘blow’, \( \text{pt} \) \( \text{(pal)} \) \( \text{II p} \tilde{a} \) ‘fill’, \( \text{bhas} \) ‘devour’ // \( \text{ps} \tilde{a} \) ‘chew’, \( \text{man} \) ‘think’ // \( \text{mn} \tilde{a} \) ‘mention’, etc. In all such pairs, the second member ends in \( \tilde{a} \) and can be derived, in formal terms, by adding \( \tilde{a} \) to a certain modification (most often, the zero grade) of the first member (\( i\tilde{a} \), \( p\tilde{a} \tilde{a} \) [\( = \text{bh}s-\tilde{a} \], \( \text{mn}-\tilde{a} \), etc.). Schematically, the formal relationship between the members of such pairs can be represented as \( \text{CaC}/(C)\tilde{a} \), where the final consonant is, most often, a sonant (i.e. \( i = ay \), \( t\tilde{f} = tar \), etc.), thus: \( C \tilde{R} (/CaR) \) // \( CR \tilde{a} \). Accordingly, I will hereafter refer to the second members of such pairs as \( \tilde{a}- \) roots (\( \tilde{a}- \) verbs), while the first members, the ‘base roots’, will be called, for the lack of better term, \( C- \) roots (\( C- \) verbs). The alternation of this type will be referred to as ‘\( \text{C}/\tilde{a} \)-alternation’.

The origins of such pairs are quite variegated. Some of them can be treated in terms of the pattern \( CaC/CC\tilde{a} \), which suggests that the second member of the pair is derived by means of the root extension, cf. \( i \) -- \( y\tilde{a} \), \( \text{man} \) -- \( \text{mn} \tilde{a} \). Some others follow the pattern \( C\tilde{R} (/CaR) \) // \( CR \tilde{a} \) (where \( R \) stands for a sonant), and thus, at the level of Indo-European reconstruction, instantiate Schwebeablaut, i.e. alternation of the type \( CeCC/CCeC \). The members of the schwebeablauting pairs, \( Ca\tilde{R} \) and \( CR \tilde{a} \), are often called, according to the Indo-Europeanist tradition, ‘full grade I’ (Vollstufe I) and ‘full grade II’ (Vollstufe II), respectively (see, for instance, Gotô 1987: 45f.). Finally, a few pairs exemplify the type \( CaC(CaR) \) // \( C\tilde{a} \), as in the case of \( \text{gam} \) ‘go’ // \( \text{ga} \tilde{t} \) ‘tread’ and \( \text{dr} \tilde{a} \) (\( \text{dr} \tilde{v} \)) // \( \text{dr} \tilde{a} \) ‘run’. Some of these pairs may be formed by etymologically unrelated roots as a result of their semantic and phonological convergence.1

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1 This is a revised and extended version of my earlier paper (Kulikov 1991). I would like to thank R. Anttila, T.Ja. Elizarenkova, W. Knobloch, A. Lubotsky, and S. Starostin for their comments on earlier drafts of this paper. I also would like to express my thanks to the audience of the XIII. Fachtagung der Indogermanischen Gesellschaft for remarks and criticism – in particular, to J.L. García-Ramón, F. Kortlandt, T. Krisch and A. Lubotsky. – The abbreviations (text sigla) used in the paper are the following: AV\( (S) \) – Atharvaveda (\( \text{Śaunākiya} \) recension), AVP – AV, Paippalada recension, Br. – Brāhmaṇas, RV – Rgveda, RVKh. – Rgveda-Khāliṇī, SB(M) – Śatapatha-Brāhmaṇa (Mādhyānta), VS – Vajasaneyi-Saṁhitā, YV – Yajurveda.

1 For our purposes we need to identify any relevant formation as belonging to the system of the \( C- \) or \( \tilde{a}- \) root. Generally, this task poses no problem, cf. infinitives \( \text{et} \tilde{a} \text{ve} \) and \( \text{tar} \tilde{t} \text{um} \) (built on the \( C- \) roots \( ay \) and \( tar \)), as opposed to \( \text{y} \tilde{a} \text{t} \text{a} \text{ve} \) and \( \text{tr} \tilde{t} \text{um} \) (\( \tilde{a}- \) roots \( y\tilde{a} \) and \( \text{tr} \tilde{a} \)). However, the zero grade forms of the schwebeablauting roots, such as \( p\tilde{f} \) (\( \text{par} \)) // \( \text{pr} \tilde{a} \) (cf. verbal adj. \( \text{p} \tilde{a}r\tilde{p} \tilde{a} \)), might belong to either of the two variants, i.e. either to...
There is no uniformity in the treatment of such pairs in Sanskrit scholarship. Some of them are taken as root variants distributed between the formations of one single paradigm, as in the case of dhmal // dhn̄ma ‘blow’. The emergence of two different full grades is mostly explained in terms of secondary developments and paradigmatic reanalyses. In some other cases, the tradition is rather inclined to treat the members of such pairs as different lexical units (roots), which, nevertheless, are considered ‘related’ (see below on pfj (par) // prä ‘fill’). However, no Vedic grammar deals with the pairs of the type tpf // trā in the chapter on verbal derivation, treating the second members (trā etc.) as separate (lexical) units.

The C//ā-alternation is intimately related to two well-known and, unfortunately, quite ill-famed phenomena of the proto-language. One is Schwebeablaut, the alternation of the type CeRC- // CReC-; for the most comprehensive study of this phenomenon see Anttila 1969. Here must belong, in particular, such pairs as tpf/tai (cf. class I pres. tärat < *terH-e-ti) // trā (cf. class IV pres. trā-ya-te) < *treH-. Another problem directly related to our C//ā-pairs is the highly controversial issue of the Proto-Indo-European laryngeal root extension and/or suffix *-ē-. Thus, pairs of the type i//yā or dah // kṣā can only be taken as related if the second members are treated as comprising the morphological element (morpheme?) -ā- (< PIE *-ē- or *-eH-). The suffix *-eH-, presumably with an intransitivizing function and/or stative meaning, is posited in many Indo-European handbooks, but the Vedic roots such as yā or kṣā are (usually) treated separately from the -ē-verbs in Indo-European scholarship of the last century. Accordingly, we are forced to posit the laryngeal extension (*-(e)H-) at the end of these roots. This analysis is adopted, in

the C-root CŔ / CaŔ (< *CRH- / *CeRH-), or to the ā-root CŔ / CRă (< *CRH- / *CReH-), that is, in our case, either to pfj / par, or to prā. (This problem does not actually arise in the case of pairs such as tpf ‘pass’ // trā ‘protect, rescue’, where the C- and ā-roots clearly differ in meaning, cf. tṝṇā- ‘passed, crossed’ (≠ ‘protected, rescued’)). However, there are some reasons to believe that all zero grade forms should be grouped with the C-roots. Specifically, many ā-roots such as trā and prā tend to generalize full grade (i.e. ā). Thus, we find ā-grade in -ta-na adjectives, cf. trāta-, dhn̄māta-, prāta-, as opposed to such adjectives as sthīta- and dhitā-, made from the ‘independent’ (= non-schwebeablauting) roots sthā ‘stand’ and dhā ‘suck’. In other words, the ā-roots such as trā, dhn̄ma and prā belong to the ‘non-alternating’ morphophonological type in terms of Zaliznjak (1975: 68ff.); cf. also Renou (1930: 75): “La tendance de ce groupe sonante + ā est de s’immobiliser et de se dissocier de la racine de base, en manièrerélargissement autonome”. Sanskrit grammars and dictionaries usually do not connect formations such as pṛphā-, tṛphā-, pres. pṛṇāti, tṛṇāti etc. with ā-roots. I will basically follow this tradition, grouping zero grade formations with the corresponding C-roots, unless there are clear semantic indications for the opposite analysis (as in the case of yā ‘drive’ – pres. ḫyate).

Thus, the full grade dhn̄ma, as in the class I present dhāma, can be explained as resulting from the reinterpretation of the athematic root present (= class II pres.: 3pl. dhāmānti < *d’hānti < *d’hēnti < *d’hē-ati); see Gotô 1987: 46, fn. 11.

Thus, Whitney’s (1889: 103) comprehensive grammar treats such roots as “variations or differentiated forms of one another”. Specifically, Whitney mentions “roots in ā and in a nasal, as kḥā and khan, gā and gam, jā and jan; roots made by an added ā, as trā from tṛ, māmā from man, psā from bhas, yā from i̯”.

The analysis of such roots as containing the suffix -ā- was advocated, in particular, by Brugmann (1878). Since then, it was largely abandoned; for a survey of the literature, see Anttila 1969: 3ff. The old idea of the Indo-Iranian suffix -ā- posited in such roots as yā and kṣā was recently retrieved by Yakubovitch (1999), but the presentation and analysis of the material in this paper is far from convincing and barely clarifies the matters.
In what follows, I will make no attempt to reconstruct the Proto-Indo-European origins of the C/ä-alternation. Rather, I will concentrate on the systematic treatment of the features of the members of the Vedic C/ä-pairs, foremost in a synchronic perspective.

2. Syntactic features of the C/ä-roots: a hypothesis

To begin with, let us have a closer look at the features of two C/ä-pairs.

(i) p(f) (par) // prä ‘fill’

The roots p(f) and prä ‘fill’ are synonymous and occur in similar constructions, cf.:

(1) (RV 8.64.4) óbhé prañáśi ródasí ‘You fill both worlds.’
(2) (RV 9.97.38) óbhé aprá ródasí ‘You have filled both worlds.’

There is, however, a remarkable difference between their properties that seems to have escaped scholarly attention. The verbal system of p(f) contains both intransitive (cf. (3-4)) and transitive (cf. (1)) formations; both usages are well-attested from early Vedic (= the language of the Rgveda and Atharvaveda) onwards, cf.:

(3) (RV 1.51.10) á tvá ... á púryamápaṇaḥ avahan abhí śríváḥ ‘[The wind-horses] conveyed you (sc. Indra), who were growing full [with soma and strength], to glory.’
(4) (RV 3.50.1) á ... pṛnatām ebhír ánnaḥ ‘Let him fill himself with this food.’

By contrast, prä is mostly employed in transitive constructions, as in (2). The intransitive class IV present púryate must belong to the C-root p(f), and there is no present passive **präyáte.6 The only attestation of an intransitive (passive?) form built on this root, the medio-passive i-aorist -aprāyi (with the preverb á), appears at the end of the early Vedic period, in stanza (5); see Kümmel 1996: 72f.; Griffiths 2009: 213f.:

(5) (RVKh. 4.2.1 = AVŚ 19.47.1 = AVP 6.20.1 = VS 34.32) á rátri párthivaṃ rájāḥ ‘pitūr aprāyi dhámabhīḥ ‘O night, the earthly space has been filled / has become full’ with the establishments of the father.’

(ii) i(ay) ‘go; send, set in motion’ // yā ‘drive, speed’

As in the case of p(f) // prä, the Æ-root yā differs from its C-counterpart i(ay) in syntactic features. For the root i, both intransitive and transitive formations are well-attested from the early Vedic period onwards. Intransitive derivatives, meaning ‘go’, are represented, in particular, by the class II present (= athematic root present) éti, as in (6). The transitive- causative counterpart of éti is the class V present inóti and its thematicization
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The root variant khyā results from the secondary development of kṣā (preserved in the Maitreyānī and Kathaka traditions); see, in particular, Lubotsky 1983: 176.

These two roots are historically unrelated (see Anttila 1969: 87; note, in particular, the different laryngeals: ḵāt < PIE *ghenhr- vs. jīnā < PIE *ghenhr-; for details, see Mayrhofer, EWAia I, 567ff., 599ff. Yet, this pair is worthy of mention in our discussion, foremost because of the fact that the syntactic behaviour of its members perfectly fits the pattern of the type pf // prā. The verb āt, well-attested both in intransitive (pres. jāt-.e, pf. jāitē, medio-pass. aorist ājāni, sictic aorist ājanistā) and transitive-causative (pres. jānā-.e, janāy-.e, pf. jujānta, etc.) usages instantiates the diffuse syntactic type. By contrast, jīnā is fundamentally transitive; passive usages are only attested for the present passive jīnāy-.e.'be known' (RV 4.51.6 +; see Kulikov 2001: 74ff.).

The present system forms most often occur in transitive-causative usages, while perfect forms are more common in intransitive constructions; for details, see Kulikov 1999: 26ff.

The root variant ṭā, created on the model pād ‘drink’ = pape, is never treated as a separate root. With the exception of one isolated perfect form, 3sg.pf.med. tate (RV 1.83.5) ‘has extended’ (transitive), it only appears in two intransitive (passive) formations: pres. pass. tayate (RV+) ‘is stretched, extended’ and, in late Vedic, pass. -aorist prātāiy (hapax in the Aitareya-Āranyaka).

Cf. class I pres. tārav ‘passes’. Note that the accusative noun in such constructions refers to the goal of motion, not to a patient (= “affiziertes Objekt”, in Gotō’s (1987) terms); see Haudry 1977: 318ff.


dah is fundamentally transitive. However, the intransitive present dahya-.e, attested both with root (non-passive) and suffix (passive) accentuation (dahya-.e in the RVKh.; dahy-.e in the YV and SB (Kātyā)), becomes quite common at the end of the early Vedic period, from the Avarahaveda onwards. Thus, by the end of the early Vedic period, dah behaves as a diffuse, rather than as a predominantly transitive, verb.

Attested, for instance, in the class IV present kṣipya-. (AVP +; see Kulikov 2001: 397ff.). Causative formations of kṣā appear from the late Rgveda onwards (injunctive of the causative aorist cikṣipas RV 10.16.1; pres.caus. kṣipaya-.AV +; see Jamison 1983: 140).

The syntactic pattern essentially reproduces the pattern of gam // gā. dru is fundamentally intransitive; on the early Vedic causative drāvāyati, see Jamison 1983: 114. The causative of drā, drāpayati, is middle Vedic (SB
\textit{Dhanī} ((predominantly) trans.) // \textit{dhmā} ‘blow, inflate’ (trans.)
\textit{dhi} (\textit{hay}) // \textit{dhā} ‘consider, think, reflect’
\textit{pī} (\textit{pay}) (diffuse) // \textit{pyā} ‘swell’ (only intrans. in RV)
\textit{bhān} ‘speak’ (trans.) // \textit{bhā} (intrans. root pres. \textit{bhāti}) ‘shine’
\textit{bhas} ‘devour’ // \textit{psā} ‘chew’ (both transitive; passives are unattested)
\textit{man} ‘think, believe; respect’ // \textit{mnā} ‘mention’ (tr.)
\textit{mīf} (\textit{mar}) ‘crush’ // \textit{mlā} ‘wither, wilt’
\textit{śq} // \textit{śrā} ‘become ready; cook’
\textit{hū} (\textit{hav}) // \textit{hva} ‘call’


Mostly in the perfect \textit{dādha} (also pluperfect \textit{ādādhet} and reduplicated present created on the basis of the perfect subjunctive), well-attested in early Vedic and employed transitively; see Kümml 2000: 257-261.

Constructed with the accusative. This root first appears in the AVP, but becomes common only in middle Vedic (\textit{YV}+); for its attestations and genesis, see Kulikov 2001: 422-425.

Pres. \textit{pīnva}– (tr-caus.), \textit{pīnva}– (intr.); active perf. \textit{pūpya} ‘has swollen; has made swell’ is labile (albeit predominantly intransitive); see Kümml 2000: 298ff. Evidence for the morphophonological type of the root, i.e. anit (\textit{p}) or set (\textit{p}), is controversial; see Mayrhofer, EWA\textit{II}, 83ff. and Kümml 2000: 298, fn. 487.


Four occurrences of the class I present \textit{bhāna}–wrc in the Rgveda exhibit a remarkable variety of syntactic patterns. These include two active forms (3sg.act. \textit{bhānati} at RV 6.11.13 and 3pl.act. \textit{bhānati} at RV 4.18.6, both employed transitively) and two attestations of the middle form \textit{bhānanta} (reflexive at RV 7.18.7 and reciprocal at RV 4.18.7); see Gotô 1987: 222f., with fn. 472-473.

\textit{Bhan} and \textit{bhā} are usually taken as etymologically related, in spite of a considerable semantic distance between their meanings; cf. also \textit{bhās} ‘speak’ and \textit{bhās} ‘shine’ as well as Gr. \textit{qēmē} ‘declare’ and \textit{qēmēma} ‘appear’; see Mayrhofer, EWA\textit{II}, 244, 260; LIV 68-70, lemmata \textquoteleft 1. *\textit{bhēh}–, ‘glänzen, leuchten, scheinen’\textquoteright and \textquoteleft 2. *\textit{bhēh}–, ‘sprechen, sagen’\textquoteright (‘morphologisch homonym ... wohl urspr. identisch’).


Traditionally regarded as an extension of \textit{man} (see, e.g., Mayrhofer, EWA\textit{II}, 385; LIV 447); for its attestations (Br. +), see Gotô 1987: 239; 1997: 1025. This verb is fundamentally transitive; its passive first appears in the (post-Vedic) Bhāradvājā-Śrāutāsūtra (3pl. \textit{ā-māyante}).

Fundamentally transitive; the rare passive present -\textit{mūryā}– only occurs in \textit{SB} 1.7.3.21 = 1.7.4.12.

Fundamentally intransitive (attested, in particular, in class IV pres. \textit{mlāya}–, AVP, \textit{SB}; see Kulikov 2001: 448).

Caus. \textit{mlāpyā}– first appears in the Atharvaveda (see Jamison 1983: 143).

Evidence for the syntactic type of the \textit{C}-root \textit{śt} (\textit{sār} (anit) is scant. It is only attested in the verbal adj. \textit{śtā}– ‘cooked; ready’ (RV +), which might be based either on a trans. (‘cook’) or on an intr. (‘become ready’) usage.


4. Syntactic features of the *ā*-verbs: a recapitulation

The results of the present study are summarized in Table 1. The members of the above-discussed verbal pairs are distributed between five syntactic classes in accordance with their syntactic features. Two non-diffuse classes include (1) intransitive verbs causatives of which are unattested or exceptional in early Vedic texts (i.e. in the RV and AV); and (5) transitive verbs passives of which are unattested or exceptional in early Vedic. Three diffuse classes consist of (2) fundamentally intransitive verbs causatives of which are attested from early Vedic onwards (weak-diffuse intransitives); (3) verbs which are well-attested in both intransitive and transitive (causative) usages; and (4) fundamentally transitive verbs intransitive (passive) derivatives of which are well-attested from early Vedic onwards (weak-diffuse transitives).

<table>
<thead>
<tr>
<th>(1) Non-diffuse (intransitive)</th>
<th>(2) Diffuse (weak-diffuse)</th>
<th>(3) Diffuse (weak-diffuse)</th>
<th>(4) Non-diffuse (transitive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>only intransitive usages; causatives are unattested/rare or late</td>
<td>basically intransitive verbs; causatives are attested</td>
<td>both intransitive and transitive (causative) usages are attested</td>
<td>basically tr. verbs; passives are unattested/rare or late</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pattern</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CaC // C(C)ā</td>
<td>yā ‘drive, speed’</td>
<td>i(ā) ‘go’</td>
<td>kā ‘be pleased’</td>
<td>kā ‘yearn’</td>
</tr>
<tr>
<td></td>
<td>gā ‘tread’</td>
<td>kam ‘appear’</td>
<td>kās ‘appear’</td>
<td>kās ‘appear’</td>
</tr>
<tr>
<td></td>
<td>drā ‘run’</td>
<td>tan ‘stretch’</td>
<td>(tā)</td>
<td>(tā)</td>
</tr>
<tr>
<td></td>
<td>bhā ‘shine’</td>
<td>pi ‘swell’</td>
<td>bhan ‘speak’</td>
<td>bhas ‘devour’</td>
</tr>
<tr>
<td></td>
<td>śrā ‘become ready’</td>
<td>man ‘think, respect’</td>
<td>(śr (?))</td>
<td>mnā ‘mention’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pattern</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCR // CRā</td>
<td>jia ‘be born, beget’</td>
<td>jnā ‘know’</td>
<td>trā ‘protect’</td>
<td>dhma ‘protect’</td>
</tr>
<tr>
<td></td>
<td>tf ‘pass’</td>
<td>dhā ‘blow’</td>
<td>dhi (dhāy) ‘think, reflect’</td>
<td>dhā ‘blow’</td>
</tr>
<tr>
<td></td>
<td>mlā ‘wither’</td>
<td>pā ‘fill’</td>
<td>pra ‘fill’</td>
<td>mā ‘crush’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hū (hāv) ‘call’</td>
<td>hū ‘call’</td>
<td>(hāv ‘call’)</td>
</tr>
</tbody>
</table>

Table 1. Syntactic types of verbs belonging to C//ā-pairs

39 The root variant hva (= full grade II) could have arisen on the model of some ā-roots which form -āya-presents, such as dhā – dhāyati ‘sucks’ and dā – dāyate ‘distributes’ (i.e. dhā : dhāyati = X : hvāyati). All formations built on hva (late Vedic: hvātar- Jaim.-Br., fut. -hvāsyayam, caus. -hvāpayati Śr.-Sū.) are transitive.
However variegated the syntax of the C- and ã-verbs might appear, there is at least one remarkable feature (tentatively formulated in Section 2) which is shared by nearly all ã-verbs and makes this distribution non-random. The ã-verbs (shown in the boldface in the table) are typically employed either mostly/only in intransitive usages, or mostly/only in transitive usages, and thus belong to the non-diffuse syntactic type. The corresponding C-verbs are more diffuse. Cf. ya (intr.) // i (intr. and tr.), trä (tr.) // tf (intr. and tr.), drá (intr.) // dru (intr. and tr.-caus.). There are also a few pairs where both members belong to the same syntactic class, cf. dhya // dhí and psa // bhas (all – transitive). The only pair where the ã-verb can be considered more diffuse than the corresponding C-verb is mà // mř. mà is fundamentally intransitive, whilst mř is transitive, but caus. mlápáya,6 (AV+), is a bit older than the passive of mř, -mǎrya (-e) (SB). In fact, this seems to be an exception that proves the rule: due to the difference in final sonants (l/r) (a dialectal feature?), the historical relations between mlà and mř (mar) are more blurred than those between the members of any other root pair, and synchronically they clearly do not belong together.

As to more specific correlations between the syntactic features of the verbs and the type of formal relationship between C- and ã-roots, the following regularities can be observed.

(i) Within the pairs which follow the schwebeablauting pattern CaR (CR) // CRã (i.e., in diachronic terms, *CaRH- // *CRaH-), the ã-member is often transitive, as opposed to the (more) diffuse C-verb; cf. especially tf (tar) ‘pass’ // trä ‘protect, rescue’ and pf (par) // prä ‘fill’. Note that present passives with the suffix -ya- and passive aorists (i-aorists) are rare or unattested in Vedic for most of these ã-roots. Thus, apráyi is a hapax (RVKh. – AV13); dhmáyate first appears in late Vedic; pass. tráyate ‘is (being) protected’ does not occur before Classical Sanskrit; for other ã-roots -ya-passives and i-aorists are unattested.

(ii) By contrast, many ã-verbs which follow the pattern CaC // C(C)ã, i.e., in diachronic terms, contain the root enlargement (suffix) -ã- (< PIE *-eH), are (predominantly) intransitive, as opposed to the (more) diffuse C-verbs. Note, in particular, that present causatives with the suffix -(p)áya- (well-attested in early Vedic for some roots in -ã such as sthã ‘stand’ and dhá ‘suck’) are (relatively) late or entirely lacking for the ã-roots of the CaC // C(C)ã-pairs. Thus, causatives of yá and drá first appear in the Bráhmana; causative of gá is unattested. The intransitivizing effect of -ã- is also fairly obvious in the pair dah // kṣá ‘burn’: dah is basically transitive, later drifting into the diffuse type, whilst kṣá is a predominantly intransitive verb, which forms an -áya-causative.

5. Possible historical sources of the C//ã-alternation

Evidence from Indo-European languages outside Indo-Iranian furnishes few parallels to the syntactic patterns described in Section 4. Moreover, many of the ã-verbs have no reliable cognates outside Indo-Iranian, and, thus, we have to look for the origins of this syntactic patterning on the Indo-Iranian (or even Indo-Aryan) ground.

Possible sources of the correlations between the attested formal patterns and syntactic features can be summarized as follows.

(i) In the case of the CaC//CCã-type, the (predominantly) intransitive character of some ã-verbs may be a vestige of the intransitive/stative function of the hypothetical Proto-Indo-European suffix *-ẹ- (*-eH). In fact, as mentioned above, a comparison with this suffix poses some problems: while in the ‘stative’ suffix *-ẹ- we have to reconstruct h₁ (*-eh₁-; see Beekes 1995: 230), in most of the above-discussed ã-roots we are probably dealing with the reflex of another laryngeal, h₂. The full evidence can be summarized as follows (the reconstruction mostly follows Mayrhofer’s EWAia and LIV):
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\[ \begin{align*}
  h_1 : & \quad k\text{̇}s\text{̇}a < *d^\text{̇}g^\text{̇}h^\text{̇}-eh^\text{̇}_R \text{‘burn’ (intransitive with -}á\text{-causatives)} \\
  & \quad pr\text{̇}a < *pleh^\text{̇}_R \text{‘fill’ (transitive)} \\
  & \quad ml\text{̇}a < *ml\text{̇}eh^\text{̇}_R (?) \text{‘wither, wilt’ (intransitive with -}á\text{-causatives)} \\
  & \quad š\text{̇}a < *k\text{̇}l\text{̇}-eh^\text{̇}_R \text{– [? see LIV 323] ‘become ready’ (intr. (?) with -}á\text{-caus.)} \\

  h_2 : & \quad k\text{̇}a < *keh^\text{̇}_R (?) \text{‘yearn, enjoy’ (transitive)} \\
  & \quad g\text{̇}a < *g^\text{̇}eh^\text{̇}_R \text{‘go, tread’ (intransitive)} \\
  & \quad tr\text{̇}a < *treh^\text{̇}_R \text{‘protect, rescue’ (transitive)} \\
  & \quad dr\text{̇}a < *dreh^\text{̇}_R \text{‘run’ (intransitive)} \\
  & \quad bh\text{̇}a < *b\text{̇}eh^\text{̇}_R \text{‘shine’ (intransitive)} \\
  & \quad mn\text{̇}a < *mn\text{̇}-eh^\text{̇}_R \text{‘mention’ (transitive)} \\
  & \quad y\text{̇}a < *(H)jeh^\text{̇}_R \text{‘drive’ (intransitive)} \\

  h_3 : & \text{no reliable examples} \\

  H (unknown) : & \quad k\text{̇}s\text{̇}a < *k^\text{̇}k\text{̇}-eh^\text{̇}_R \text{‘see, consider, reckon’ (transitive with passives)} \\
  & \quad dh\text{̇}m\text{̇}a < *d^\text{̇}m\text{̇}-eh^\text{̇}_R \text{‘blow, inflate’ (transitive)} \\
  & \quad dhy\text{̇}a < *d^\text{̇}jeH \text{‘consider, reflect’ (transitive)} \\
  & \quad py\text{̇}a < *pieH \text{‘swell’ (intransitive)} \\
  & \quad ps\text{̇}a < *b^\text{̇}s\text{̇}-eh^\text{̇}_R \text{‘chew’ (transitive)} \\
  & \quad hv\text{̇}a < *g\text{̇}ueH \text{– [h\text{̇}$_2$ or h$_3$? see Mayrhofer, EWAia II, 811] ‘call’ (tr.)} \\

  \text{Apparently, there are as few as one or two root pairs where the intransitivity of the ā-verb can be explained as a direct reflex of the intransitive function of the PIE suffix *-eh}_R. \\
  \text{Note, however, that the development of the syntactic features (‘non-diffuseness’) of the ā-verbs should probably be dated to Proto-Indo-Iranian, where the three PIE laryngeals have fallen together. Accordingly, it cannot be ruled out that some (derived) roots with the reflex of the PIE ‘stative-intransitive’ suffix *-eh}_R > PIIR. *-aH- (*d^\text{̇}g\text{̇}h^\text{̇}-eh^\text{̇}_R ?, *k\text{̇}l\text{̇}-eh^\text{̇}_R ?) could trigger and/or support the development of similar syntactic properties of the verbal forms derived from all *CC-aH-roots, irrespectively of the quality of the PIE laryngeal.} \\

  \text{(ii) In some cases, the syntactic features of the formations built on different grades of one verb/root (cf. trans. aor. apr\text{̇} - intr. pres. p\text{̇}ry\text{̇}ate and tr.-caus. pres. p\text{̇}r\text{̇}n\text{̇}t\text{̇}t\text{̇}) could be associated with the corresponding (C vs. ā-) root variants. Subsequently, one paradigm could split in two sub-paradigms, and, accordingly, one lexical unit (verb) gave rise to two different (albeit etymologically and derivationally related) verbs. Thus, the transitive syntax of the root aorist āpr\text{̇}as could be generalized for all formations built on the full grade (II) of the root pf / pr\text{̇}a ‘fill’, as opposed to formations derived from the zero grade (pres. p\text{̇}ry\text{̇}a-je, p\text{̇}r\text{̇}y\text{̇}a-je, p\text{̇}r\text{̇}n\text{̇}t\text{̇}t\text{̇}, p\text{̇}r\text{̇}n\text{̇}t\text{̇}t\text{̇}-je), which, eventually, has led to the split of one single lexical unit in two, pf (p\text{̇}ur) ‘become full; fill’ and pr\text{̇}a ‘fill’ (see Albino 1999; Kümmer 2000: 325ff.), differing in syntactic features: diffuse vs. (predominantly) transitive. This difference in syntax could be expanded to another root pair following the same pattern (CaR // CRa), t\text{̇}f ‘pass’ // tr\text{̇}a ‘protect’. In some cases this syntactic difference could be supplemented with idiomatic shifts (cf. t\text{̇}f (tar\text{̇}) ‘pass’ // tr\text{̇}a ‘protect’; ma\text{̇}n ‘think; respect’ // mn\text{̇}a ‘mention’).} \\

  \text{(iii) Finally, it cannot be ruled out that the difference in syntactic properties between some historically (and semantically) unrelated but formally similar roots has contributed to the development of the functional (syntactic) value of the C/ā-alternation. Particularly instructive is the case of ja\text{̇}n ‘be born; generate’ // jīn\text{̇}a ‘know’. In spite of the lack of semantic and historical connections between these two roots, their formal similarity and remarkable difference in syntax (ja\text{̇}n is diffuse; jīn\text{̇}a is fundamentally transitive) could have supported the syntactic model of the etymological CaR // CRa pairs such as pf // pr\text{̇}a.} \]
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