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The Labile Syntactic Type in a Diachronic Perspective: The Case of Vedic*

Abstract

Ancient Indo-European verbal syntax, as attested in early Vedic Sanskrit, exhibits numerous examples of the labile syntactic pattern: several verbal forms can show valence alternation with no formal change in the verb; cf. pres. *svádāte* 'he makes sweet' / 'he is sweet'; perf. *vāvṛdhúh* 'they have grown' (intr.) / 'they have increased' (tr.).

I will argue that the labile patterning of the Vedic verb, however common it may appear, is mostly of a secondary character. There are a limited number of reasons which give rise to labile syntax: (i) the polyfunctionality of the middle inflection (which can be used to mark the anticausative, passive and reflexive functions, on the one hand, and the self-beneficent meaning of the transitive forms, on the other); (ii) the homonymy of some middle participles "shared" by passive (medio-passive aorist, stative) and non-passive formations; (iii) the syntactic reanalysis of intransitive constructions with the accusative of parameter/scope (content accusative) as transitive-causative. As to the perfect, it could probably be employed both intransitively and transitively already in Proto-Indo-European, although the intransitive usages were prevalent. In the historical period the newly-built perfect middle forms have largely taken over the intransitive function, but active perfects are still quite common in the (more archaic) intransitive usages in early Vedic.

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The analysis of the development of lability in Vedic uncovers general mechanisms of the rise and decay of the labile syntactic type and thus furnish important evidence for its typological study.

1. Preliminary remarks

The term “labile” refers to verbs (or, to be more exact, verbal forms) which can show a valence alternation with no formal change in the verb. Typical examples of labile patterning are (1–5):

- (1) Russian
 - a. *Ivan čitaet knigu*
‘Ivan is **reading** a book.’
 - b. *Ivan čitaet*
‘Ivan is **reading**.’
- (2) a. Mary **gave** John an apple.
b. Mary **gave** an apple to John.
- (3) a. John **opened** the door.
b. The door **opened**.
- (4) French (Larjavaara 2000: 216ff.)
 - a. Jean **culpabilise** Marie.
‘J. makes M. feel guilty.’
 - b. Marie **culpabilise**.
‘M. feels guilty.’
- (5) Lezgian (Haspelmath 1993a: 289)
 - a. *Ajal.di* *get'e* *xa-na*
child (ERG) pot break-AOR
‘The child **broke** the pot.’
 - b. *Get'e* *xa-na*
pot break-AOR
‘The pot **broke**.’

Correspondingly, alternations like those between (a) and (b) in the above examples can be said to exemplify different kinds of **labile patterns**. Since the (a) and (b) members of pairs like (1) and (3–5) also differ in terms of the transitive/intransitive distinction, the phenomenon of lability can be qualified as “fluid transitivity” (cf. Dixon 1994: 6).

Leaving out of consideration labile patterns like (1) (transitive vs. objectless transitive, often also referred to as absolute transitive), as well as valence alternations exemplified by (2), I will focus on pairs like (3–5). Unlike the sentences in (1–2), sentences (a) and (b) in (3–5) do not share the subject. However, the object of the transitive clause (a) corresponds to the subject of its intransitive equivalent (b) (whence the terms ‘S = A type’ for the cases like (1) and ‘S = O type’ for the cases like (3–5) (cf. Dixon 1994)), and the meaning of the verb in (a) can be roughly defined as ‘CAUSE’ + meaning of the verb in (b) (e.g. ‘cause to open; make open’ etc.). This type is generally termed “causative/inchoative” (cf. e.g. Haspelmath 1993), “causative” (cf. Levin 1993; Levin & Rapoport 1994) or “ergative” alternation.¹

It has long been noted that the causative type of lability is common in the languages of the ergative syntactic type, and it is no accident that the term “labile” was coined in the grammars of the Caucasian languages, in which the ergative type is fairly common.

The same phenomenon is well-attested in English, however, which clearly outranks many ergative languages in the number of verbs with labile patterning (like *open* in (4)). Moreover, many newly-built or borrowed verbs, including numerous technical and scientific terms, follow the same pattern; cf. *liberalize*, *oxidize*, etc.

2. Where do labile verbs come from and how do they disappear?

Lability and labile verbs are not among the most extensively studied subjects in the typological literature, but a large amount of relevant information can be extracted from grammars of individual languages and especially from studies on North-Caucasian, Germanic (particularly

¹ Other terms used for such verbs as Eng. *open* are “amphibious” (Visser 1970: 99), “ambitransitive” (e.g. Dixon 1994: 18, 54, 217f. et passim), “causative-decausative” (Dolinina 1989: 26f.), “voice-neutral” (cf. Tschekhoff 1980), “S = O verbs” (e.g. Dixon 1994), “optionally transitive” (cf. Miller 1993: 179f.), “voiceless” or “non-diathectic” (both in Schmalstieg 1982: 124); see also Kulikov 1999a for a survey. For terms used in the French tradition, see Larjavaara 2000: 218ff.

English) and Romance languages. For Caucasian, see e.g. Tchekhoff 1980; Hewitt 1982; Šejxov 1987. For English, one has to mention the classical grammar by Jespersen (1927: 332–337), where he draws attention to what he calls the “*Move and Change-class*,” i.e. one of the main semantic classes of verbs displaying causative lability (*move, turn, boil, improve*, etc.); cf. also Smith 1978. Among more recent studies, see, for instance, Keyser & Roeper 1984; Levin 1993; Levin & Rapoport 1994; Kitazume 1996. For French, cf. e.g. Bernard 1972: 227ff.; Junker 1988 and, most recently, a comprehensive monographic study by M. Larjavaara (2000).

In what follows, I will focus on some of the diachronic aspects of lability. There is no need to argue that languages differ in the number of labile verbs, ranking from just a few (as is, for instance, the case with Russian) to some hundreds (English). Nor is there any doubt that the degree of (causative) lability (which can be specified by the number of labile verbs in the dictionary) does not remain unchanged in the history of languages. There must be then a limited number of mechanisms and scenarios which lead to the rise or loss of labile patterning. Surprisingly enough, this subject has not been paid sufficient attention to in general and typological linguistic studies.

For instance, Germanic languages (and, particularly, English) have considerably extended the range of labile verbs. The well-documented history of English and other Germanic languages provides us with rich evidence for this process.

On the one hand, there are some causes of linguistic change of a purely phonological nature. For instance, the Old English intransitive *mełtan* and transitive-causative *mieltan*, *myltan* have merged in modern English *melt* (cf. Visser 1970: 131ff.).

On the other hand, several syntactic processes contributed to the increase of labile verbs. In particular, some (basically) transitive verbs can already be employed intransitively both with and without a reflexive pronoun (cf. *hide* / *hide himself*, etc.) in Old English, but in later periods the tendency to suppress the reflexive marker seems to have become stronger (Hermodsson 1952: 65f.; Visser 1970: 145ff.).

One also has to mention an interesting attempt to arrange English labile verbs as a continuum according to whether transitive uses occur earlier, later or simultaneously with the intransitive ones (Kitazume 1996). Correspondingly, labile verbs (“ergatives” in Kitazume’s terms) fall into “transitive-base” (e.g. *fasten*: the earliest transitive and intransitive attestations in 900 and 1225, respectively, according to the *Oxford English*

Dictionary), “intransitive-base” (e.g. *fly*: 1607 and 1000, respectively) and “transitive-intransitive-base,” or “typically ergative” (e.g. *open*: both transitive and intransitive around 1000). The same approach applied by Junker (1988) to the French de-adjectival labile verbs, like *grandir* (← *grand* ‘big, tall’) ‘grow, make taller’, *embellir* (← *bel-* ‘beautiful’) ‘become/make beautiful, embellish’, reveals that verbs with a derivational prefix (like *em-* in *embellir*) are initially transitive, i.e. their transitive uses are attested earlier (cf. *embellir*: transitive usages are attested since 1100 and intransitive since 1671), while prefixless verbs are initially intransitive (cf. *grandir*: transitive since 1460 and intransitive since 1260).

3. Labile patterning and the ancient Indo-European syntactic type

While labile alternations in English, French and some other modern languages are relatively well-studied, little has been done in the grammar of the ancient Indo-European languages. And yet, its importance and relevance for the ancient (or Proto-) Indo-European syntax can hardly be overestimated.

It has long been commonly accepted that the Indo-European syntactic type changed considerably, and in some of the oldest Indo-European languages, like Vedic (especially the language of the most ancient Vedic text, the *Ṛgveda*, hereafter RV) and (Homeric) Greek, a number of verbal forms could be used both intransitively and transitively, while in later periods this phenomenon is less frequent or exceptional. To state it in terms of lability, the ancient Indo-European (and, presumably, Proto-Indo-European) syntactic type is supposed to be much more labile than that attested in younger languages. Two explicit statements made on this issue are worth quoting here:

“Bei den Sätzen mit Verben muß man . . . unterscheiden, ob das Verb allein steht oder noch eine Ergänzung, ein Objekt, fordert, ob es nach der gewöhnlichen Ausdrucksweise intransitiv oder transitiv ist. . . Nun ist aber die Unterscheidung nicht so wesentlich, da intransitive Verben transitiv und transitive intransitiv werden können. Wäre sie von großer Bedeutung, so würden wir wohl eine Verschiedenheit der Form zwischen den beiden Kategorien antreffen.” (Hirt 1937: 28)

“. . . je demande: « Que signifiait donc [la forme verbale proto-indo-européenne] **e-liq-ê-s*? » Était-ce ‘tu laissas’ ou ‘tu restas’? Si l’un des deux, comment est-il devenu l’autre? Si tous les deux, il faut convenir que nos ancêtres manquaient de clarté.” (Henry 1893: 121)

Thus far we have no full treatment of the phenomenon of lability in ancient Indo-European languages, although several valuable observations and remarks are scattered throughout the grammars and special studies on Vedic, Greek, etc. A comprehensive description of syntactic classes and types capturing the main correlations between transitivity and lability of verbal forms, on the one hand, and morphological categories and oppositions, such as diathesis (active/middle), tense (present/perfect/aorist), finite/non-finite distinction, on the other, still remains a desideratum for the grammars of individual Indo-European languages (in particular, Vedic) and, in my opinion, a prerequisite for studying (Proto-)Indo-European syntax.

I will of course make no attempt to present the full inventory of the labile forms attested in Vedic. Rather, I will confine myself to some preliminary remarks, pinpointing several areas in the verbal paradigm where labile patterning seems to be especially common, and outlining a few of the mechanisms which may have led to the rise of this phenomenon in Indo-European.

4. Labile patterning of the Vedic verb

4.1 Middle present forms

Labile patterning in middle forms results from the polyfunctionality of the middle diathesis. Specifically, the middle inflexion can express either the self-beneficent meaning with no valence change (cf. the textbook example act. *yájati* ‘sacrifices’ ~ med. *yájate* ‘sacrifices for oneself’), or an intransitivizing derivation, like passive, reflexive, anticausative (decausative). Correspondingly, in the cases where the middle diathesis can have both self-beneficent and some of the intransitivizing functions (usually, anticausative or reflexive) with a given verb, its middle forms can be employed either transitively with the self-beneficent meaning, or intransitively, and thus display labile patterning.

4.1.1 Class I presents

The full list of the thematic full grade root presents (= “class I presents” in the traditional notation, the largest and most productive present type in the Vedic verbal system) which attest labile patterning can be found in Gotō

(6) a. (RV 9.74.9)
svāda-sva↓² *indrāya* *pavamāna*
 be/make.sweet:PRES-2SG.IMPV.MED Indra:DAT.SG Pavamāna:VOC.SG
pītāye
 drink:INF
 ‘Be sweet for Indra, O Pavamāna (= Soma sap), for drinking.’

- (7) a. (RV 1.104.7)
- | | | | |
|-------------|------------------------|---------------|----------------|
| <i>vṛśā</i> | <i>coda-sva</i> | <i>mahaté</i> | <i>dhánāya</i> |
| bull:NOM.SG | rush:PRES-2SG.IMPV.MED | big:DAT.SG | contest:DAT.SG |
- ‘Rush [like] a bull for a big contest!’

- #### 4.1.2 Nasal presents and their thematicizations

² The symbol ↓ shows that the sandhi has been undone.

exceptions, but the corresponding thematicized forms can also appear (although rarely) in intransitive usages (for details, see Kulikov 1995, 2000), thus displaying the labile patterning. Cf. the labile syntax of the thematic middle present *pr̥ṇáte* ‘fill’, as opposed to the transitive-causative act. *pr̥ṇāti* / med. *pr̥ṇīté*:

(8) a. (RV 3.33.12)

ā vaksāṇāḥ pr̥ṇá-dhvam
 PREV udder:ACC.PL fill:PRES-2PL.IMPV.MED
 ‘Fill your udders, (o rivers).’

b. (RV 7.37.1)

sāvaneṣu sómair ... pr̥ṇa-dhvam
 pressing:LOC.PL Soma:INS.PL fill:PRES-2PL.IMPV.MED
 ‘At the [Soma-]pressings fill yourself with the Soma[-sap].’

Note that the intransitive usage is attested even for active forms of some of these thematic presents, for instance, for *ṛṇvati* ‘sets in motion’ (transitive) / ‘moves, raises’ (intransitive, e.g. at RV 6.2.6) (~ athematic *ṛṇóti* ‘sets in motion’).

The origin of the intransitive syntax of these forms requires an explanation. Of course, due to thematicization the morphological structure of the nasal presents could be blurred, so that, as a matter of fact, the original transitivity affix has become part of a new (quasi-)root (*pr̥ṇ-*, *ṛṇv-*, etc.), but the exact reasons for the change in syntactic properties of the corresponding forms are unclear to me. Perhaps, it is due to the secondary association between the thematicization and middle diathesis,³ which may have lead to the transfer of some features of the middle diathesis (in particular, its intransitivizing function) to the thematic type of stem.

³ Cf. pairs like act. *riṇāti* ‘makes flow’ ~ med. *ríyate* ‘flows’, *junāti* ‘impels’ ~ *jávate* ‘hurries’, quoted above, where thematic middle presents are opposed to athematic transitive-causative presents (see, e.g., Joachim 1978: 27f.).

4.2 Present *púṣyati* ‘prosper’ / ‘make prosper’

Another formation often mentioned in the Sanskrit scholarly literature as an instance of the labile patterning is the present *púṣyati*, employed in both intransitive (cf. (9a)) and transitive-causative (cf. (9b)) usages, viz. both in the intransitive sense ‘prosper, thrive’ and the transitive ‘make prosper, make thrive’. (See Böhtlingk & Roth's dictionary (1865: Sp. 808) s.v. *púṣ-*: a) ‘gedeihen’; b) ‘gedeihen machen, gedeihen lassen’).

(9) a. (RV 7.32.9)

<i>tarāṇir</i>	<i>ij</i>	<i>jayati</i>	<i>kṣéti</i>	<i>púṣya-ti</i>
fast:NOM.SG	only	wins	dwells	prosper:PRES-3SG.ACT

‘Only the one who is fast is victorious, dwells (in peace), **prosperers**.’

b. (RV 8.39.7)

<i>sá</i>	<i>mudā</i>	<i>kāvya</i>	<i>purí</i>
he	joy:INS.SG	poetic.inspiration:ACC.PL	many

<i>vísam</i>	<i>bhūma</i> ↓	<i>iva</i>	<i>puṣya-ti</i>
everything:ACC	earth:NOM.SG	like	prosper:PRES-3SG.ACT

‘By [his] joy, he (sc. Agni) [makes thrive] many poetic inspirations, as the earth **makes thrive** everything.’

Elsewhere (Kulikov 1999a) I have argued that only intransitive constructions are original, whereas the transitive-causative usages arise from the syntactic reanalysis of intransitive constructions with content accusative. This is a phenomenon fairly common in ancient Indo-European languages. These reanalyses include:

(i) constructions with the “etymological” accusative, i.e. with the accusative of an abstract nominal derived from the root *puṣ*, meaning ‘prosperity, thriving’ or the like, such as *puṣṭi-* ‘prosperity’, *póṣa-* ‘prosperous thing’; cf. (10, 11); cf. also English *live a life, fight a fight*, and

(ii) constructions with the accusative referring to some aspect(s), parameter(s) or scope of prosperity⁴ (as in (12)):

⁴ This semantic type is discussed in detail by Oertel (1926: 31ff.), who rightly argues that the accusative in such constructions is to be regarded “as an **accusative of content or reference** . . . rather than as accusative of the direct object” [emphasis mine – LK]; see also Gaedicke 1880: 88ff.; Delbrück 1888: 175f.; Jamison 1983: 29, fn. 9. Other terms used in the literature to refer to such accusatives, “accusative of relation” and

(10) (RV 6.2.1)

tvám ... śrávo váso puṣtīm ná
 you:NOM glory:ACC .SG Vasu:VOC.SG prosperity:ACC.SG as
puṣya-si
 prosper:pres-2sg.act
 ‘You, o Vasu, prosper in glory [= you are glorious], as one [prosper]
 inprosperity [= as one is prosperous].’

(11) (Pañcaviṃśa-Brāhmaṇa 22.7.2)

jamadagniḥ sarvān poṣān
 Jamadagni:NOM.SG all:ACC.PL prosperous.thing:ACC.PL
apuṣyat
 prosper:IMPF:3SG.ACT
 ‘Jamadagni prospered in all prosperous things.’

(12) (RV 7.56.5)

śá víṭ su-vīrā marúdbhir as-tu
 this tribe:NOM.SG good-man:NOM.PL Marut:INS.PL be:PRES-
 ... *púṣya-nt-ī nṛmṇām*
 3SG.IMPV.ACT prosper:PRES-PART-NOM.SG.F manliness:ACC.SG
 ‘Let this tribe be full of valiant sons with [the help of] Maruts, ... prospering
 in manliness.’

The similarity between these two accusative patterns (i.e. transitive-causative, as in (9b), and intransitive with accusative of parameter, as in (12)) has given rise to numerous misinterpretations and erroneous translations, cf., for instance, Geldner’s translation of (13):

(13) (RV 1.81.9)

eté ta indra jantávo
 these your Indra:VOC people:NOM.PL
viśvam puṣya-nti vāryam
 all:ACC prosper:PRES-3PL.ACT desirable.good:ACC.SG
 ‘Diese Leute hier **bringen** für dich, Indra, allen begehrenswerten (Besitz)
zur Blüte.’ (Geldner 1951: I, 105)

Geldner’s translation, albeit syntactically impeccable, conforms badly to what we know about Vedic mythology. It is typically the function of the deities, not of men, to augment or bring to prosperity goods of all kinds

“accusative of result,” appear to be somewhat misleading. I prefer to call this type “accusative of parameter/scope.”

(*viśvaṃ vāryam*). No doubt, this construction belongs to the same syntactic type as (12) and should be rendered as ‘these peoples of yours, o Indra, prosper in all desirable goods’.

The parallelism between the two accusative constructions attested with *púṣyati* (transitive proper and intransitive with accusative of parameter), suggests the following scenario concerning the rise of labile patterning:

Stage I

$\langle X_{\text{NOM}} + \text{prosper} \rangle$: (e.g.) *The sacrificer prospers*

The intransitive verb takes a semantically empty “etymological accusative” (i.e. the accusative of a nominal derived from the root *puṣ*, meaning ‘prosperity, thriving’ [P^{pus}]):

Stage II

$\langle X_{\text{NOM}} + P^{\text{pus}}_{\text{ACC}} + \text{prosper} \rangle$: *The sacrificer prospers (in prosperity)*

Instead of an “etymological accusative,” the verb can be constructed with a semantically non-empty “non-etymological accusative,” referring to parameter or scope of prosperity (P):

Stage III

$\langle X^i_{\text{NOM}} + (X^i\text{'s}) P_{\text{ACC}} + \text{prosper} \rangle$: *The sacrificer prospers in wealth*

The parameter (property) expressed by the accusative is reinterpreted as being possessed by someone non-identical with the subject:

Stage IV

$\langle X^i_{\text{NOM}} + (Y^j\text{'s}) P_{\text{ACC}} + \text{makes prosper, increases} \rangle$: *Agni makes wealth increase*

The turning point in this scenario is the III \rightarrow IV transition, when the reference of the possessor of P_{ACC} is “switched” (i \rightarrow j). This process, which might be called “**alienation of parameter**,” seems to be one more possible way to arrive at causative lability. Example (9b) is particularly instructive as an illustration of the ease of the transition from an intransitive with a content accusative to a transitive. The intransitive interpretation of *bhūma viśvaṃ puṣyati* ‘the earth thrives in everything [what exists on it]’ is almost undistinguishable from the corresponding transitive, ‘the earth

makes thrive everything [what exists on it]’. By analogy and, particularly, by means of similes like [*agnīḥ*] *kāvyaṁ puṣyati* ‘Agni makes thrive poetic inspirations’ ~ *bhūma viśvam puṣyati* ‘the earth makes thrive everything’, this transition could have expanded to other constructions, giving rise to the labile patterning of *puṣyati* ‘prosper / makes prosper’.

The scenario of the syntactic evolution of Vedic *puṣyati* outlined above can be placed into a broader perspective. Although our discussion did not go beyond the scope of one particular verb, *puṣyati*, its syntactic features are important evidence for a typological study of lability. An easy transfer from the content accusative constructions to the transitive-causative pattern may imply that languages where intransitive constructions with a content accusative are common have at their disposal an additional resource which feeds this type of causative lability.

4.3 Middle athematic participles

Labile patterning is also very common for middle athematic participles with the suffix *-āna-* (noticed already by Delbrück in his seminal *Altindische Syntax* (1888: 264)). Two typical examples are the participles *hinvāná-* and *yujāná-*. *hinvāná-* (root *hi-* ‘impel’) occurs 18 times in intransitive (passive) constructions (as in (14a)), and 10 times in transitive constructions (as in (14b)) in the Ṛgveda, cf.:

(14) a. (RV 9.12.8)

<i>sómo</i>	<i>hinv-ānó</i>	<i>arṣati</i>
Soma:NOM.SG	impel:PRES-PART:NOM.SG.M	flows
‘Soma, being impelled, flows.’		

b. (RV 2.21.5)

<i>dhīyo</i>	<i>hinv-ānā</i>	<i>uśijaḥ</i>
thought:ACC.PL	impel:PRES-PART:NOM.PL.M	Uśija:NOM.PL
‘Uśijas, impelling the (religious) thoughts...’		

The participle *yujāná-* (root *yuj-* ‘yoke’) occurs 8 times in intransitive (passive) constructions (as in (15a)), and 14 times in transitive constructions (as in (15b)) in the Ṛgveda (see Kümmel 1996: 90):

- | | | |
|---|---------------|----------------|
| <i>yuj-ānó</i> | <i>haritā</i> | <i>rāthe</i> |
| yoke:AOR-PART.MED:NOM.SG.M | fallow:ACC.DU | chariot:LOC.SG |
| '... (Tvastar,) yoking two fallow [horses] to the chariot.' | | |

- rátho ná mahé śávase*
 chariot:NOM.SG like great:DAT power:DAT.SG
yuj-ānāḥ
 yoke:AOR-PART.MED:NOM.SG.M
 '... like a chariot yoked for the great power.'

(i) <i>hi-</i> ‘impel’		(ii) <i>yuj-</i> ‘yoke’	
PRESENT	STATIVE	ROOT AORIST	PASSIVE AORIST
3sg. <i>hinu-té</i>	3sg. <i>hinv-é</i>	3sg. <i>á-yuk-ta</i>	3sg. <i>á-yoj-i</i>
<u>transitive</u>	<u>intransitive-passive</u>	<u>transitive</u>	<u>intransitive-passive</u>
<i>hinv-āná-</i>		<i>yuj-āná-</i>	

(ii) Likewise, the stem *yuj-* (*yoj-*) is shared by the root aorist (3sg.med. *áyukta* etc.), never used in passive constructions (*áyukta* can only mean 'he yoked', not 'was yoked') and the medio-passive *-i*-aorist (3sg. *áyoji*, 3pl. *áyujran*), always employed as passive ('it was yoked').

A similar account seems appropriate for some other *-āna*-participles which show labile syntax. An example would be *indhāna-*, made from the root *idh-* ‘kindle’, which occurs 5 times in transitive usages (‘kindling’) and 3 times in passive usages (‘kindled’) in the Ṛgveda, and thus belongs to the transitive nasal present *in(d)dhé* and stative *indhé* (RV 7.8.1) ‘is kindled’, respectively (see Kulikov 2001: 46–47; 2003a).

Although participles are not included into the paradigms of statives and medio-passive aorists in standard Sanskrit grammars, the assumption

that passive *-āna*-participles belong with these formations is quite attractive, since it easily explains their labile syntax.

4.4 Labile perfects

Yet another part of the paradigm which is relevant for the discussion of lability is the perfect tense system. Most interestingly, perfect forms of some verbs show labile syntax regardless of diathesis. Typical examples are perfects of the verb *ṽṛdh-* ‘grow, increase’. Both active and middle forms of this verb can be employed either intransitively or transitively. For instance, the 3rd person plural active form *vāṽṛdhūḥ* occurs 6 times in intransitive usages (as in (16a)) and 14 times in transitive-causative usages (as in (16b)) in the Ṛgveda (see Kümmel 2000: 469ff. for details):

(16) a. (RV 2.34.13)

<i>rudrā</i>	<i>ṛtāsya</i>	<i>sādaneṣu</i>	<i>vāṽṛdh-uḥ</i>
Rudra:NOM.PL	law:GEN.SG	residence:LOC.PL	grow:PF-3PL.ACT
‘Rudras have grown in the residences of the truth.’			

b. (RV 8.6.35)

<i>īndram</i>	<i>ukthāni</i>	<i>vāṽṛdh-uḥ</i>
Indra:ACC.SG	hymn:NOM.PL	grow:PF-3PL.ACT
‘The hymns have increased Indra.’		

Another perfect verb form which is common both in intransitive and transitive usages is *tan-* ‘stretch’ (see Kulikov 1999b: 32–34, 36; Kümmel 2000: 208ff.), cf.:

(17) a. (RV 10.178.3)

<i>yāḥ</i>	<i>śávasā</i>	<i>pāñca</i>	<i>kṛṣṭīḥ</i> ...	<i>tatān-a</i> ...
who:NOM.SG.M	force:INS.SG	five	people:ACC.PL	stretch:PF-3SG.ACT
‘... who has stretched with his force across five peoples.’				

b. (RV 3.53.15)

<i>ā</i>	<i>sūryasya</i>	<i>duhitā</i>	<i>tatān-a</i>	<i>śrávo</i>
prev son:GEN.SG	daughter:NOM.SG	stretch:PF-3SG.ACT	glory:ACC.SG	
<i>devéṣu</i> ...				
god:LOC.PL				
‘The daughter of the son has stretched (her) glory among gods.’				

The labile syntax of the early Vedic perfect (especially common in the *Ṛgveda*) may originate in the predominant intransitivity of the Proto-Indo-European perfect, of which some traces can still be found in early Vedic and Homeric Greek.⁵ A detailed discussion of the syntactic development which the Proto-Indo-European perfect could have undergone goes beyond the scope of the present paper, but an approximate scenario can be outlined as follows. There are good reasons to assume that the Indo-European categories 'perfect' and 'middle' are etymologically related and probably go back to one single proto-category.⁶ Thus, originally, the active/middle opposition could be irrelevant for perfect forms. This assumption is supported by the verbs, the active perfects of which are employed in the same usage as the corresponding middle presents (non-passive intransitives); cf. middle present *pádyate* 'falls' // active perfect *papāda* 'has fallen', middle present *mriyáte* 'dies' // active perfect *mamāra* 'has died'.⁷ (Active) perfect forms could probably be employed both intransitively and transitively, although the former usages are likely to prevail ("split transitivity"; see Kortlandt 1983: 319ff.; Kulikov 1999b).

Later on (but still in the prehistoric period), in some Indo-European languages (in particular, in Vedic and Ancient Greek), the active/middle distinction was introduced into the perfect paradigm under the influence of the present system forms (for details, see Renou 1925: Ch. 5–8; Jasanoff 1978: 16, 81f.; Kümmel 2000: 94). Correspondingly, by analogy with the present tense pairs like med. *vārdhate* 'grows' (intransitive) ~ act. *vārdhati* 'makes grow, increases' (transitive-causative), the newly-built perfect middle forms have taken over the intransitive function. However, this process was not yet completed by the time of the *Ṛgveda*, and active perfects are still quite common in the (more archaic) intransitive usages, hence the labile syntax of some of the perfect forms.

⁵ For Greek, see, for instance, Chantraine 1927: 26ff.; for Vedic, cf. Renou 1923; 1925: 144–148. For a general discussion, see Kulikov 1999b.

⁶ On this hypothesis, going back as far as Kuryłowicz 1932 and Stang 1932, see, in particular, Kuryłowicz 1964: 56ff.; Jasanoff 1978; Kortlandt 1979: 66f.; 1981; Neu 1985.

⁷ See e.g. Hoffmann 1976: 590; Jasanoff 1978: 15; Kümmel 2000: 296f., 370ff. et passim.

5. Labile patterning in middle and late Vedic

To conclude, a few remarks on the later developments of the labile patterning in Vedic are in order. In the post-Ṛgvedic language we observe the decay of the labile type. Thus, already in the second-most ancient Vedic text, the Atharvaveda, we find very few labile forms. In particular, most of the active perfects which show labile syntax in the Ṛgveda (e.g., *(ā) vāvarta* ‘has turned / has made turn’, *mamāda* ‘has rejoiced, has been exhilarated / has exhilarated’, *vāvṛdhūḥ* ‘have grown / have increased’, *rurucūḥ* ‘have shone / have made shine’) are either attested in intransitive usages only (*-vāvarta* ‘has turned’; see Kümmel 2000: 462ff.), or in transitive usages only (the only attested perfect form of *mad*, 3sg.subj.act. *mamādat* AV 7.14.4 ‘he should exhilarate’, is transitive; see Kümmel 2000: 356ff.), or do not occur at all (*vāvṛdhūḥ*, *rurucūḥ*).

It seems that the disappearance of the labile patterning essentially correlates with two morphological processes within the Vedic verbal system:

(i) The rise and development of two valency-changing categories (not yet well-established in early Vedic), causatives with the suffix *-āya-* (see Jamison 1983) and passives with the suffix *-yá-* (see Kulikov 2001), which thus leads to a more overt morphological marking of the transitivity oppositions;

(ii) The degrammaticalization of the middle diathesis (for details, see Kulikov 2003b). Several functions of the (Proto-)Indo-European middle are transferred to specialized markers. Thus, the reciprocal meaning (‘each other’), still rendered (although rarely) by bare middle forms in early Vedic, is regularly expressed by the adverb *mithás* ‘mutually’, by the preverb *ví-* (in the Ṛgveda and Atharvaveda) and by the pronominal expression *anyò nyá-* (lit.) ‘another-another’ (in middle and late Vedic). The reflexive meaning (‘oneself’), sometimes rendered by middle forms in Vedic (though mostly with idiomatic semantic shifts) is more commonly expressed by the pronouns *tanú-*, originally meaning ‘body’ (in the Ṛgveda and Atharvaveda), and *ātmán-*, originally meaning ‘breath’ (from the Atharvaveda onwards).

6. Conclusions

To sum up, the lability of the Vedic verb, however common it appears, is mostly of a secondary character, and thus Vedic stands in contrast to languages such as English or Tonga, where the labile patterning appears to be one of the crucial features of the verbal syntax. There is a limited number of reasons which give rise to labile syntax: (i) the polyfunctionality of the middle inflection (which can be used to mark the anticausative, passive and reflexive functions, on the one hand, and the self-beneficent meaning of the transitive forms, on the other); (ii) the homonymy of some middle participles 'shared' by passive (medio-passive aorist, stative) and non-passive formations; (iii) the syntactic reanalysis of intransitive constructions with the accusative of parameter/scope (content accusative) as a transitive-causative. It seems that the relevance of the labile patterning for the (Proto-)Indo-European syntactic type in general should not be overestimated, although for more definitive conclusions we need of course an exhaustive description of this phenomenon in Vedic, Ancient Greek and other ancient Indo-European languages, as well as a description of the syntactic classes of verbs and the syntactic properties of verbal forms belonging to different tense systems.

Abbreviations

ACC	accusative	LOC	locative
ACT	active	M	masculine
AOR	aorist	MED	middle
AV	Atharvaveda	NOM	nominative
DAT	dative	PF	perfect
DU	dual	PL	plural
ERG	ergative	PRES	present
F	feminine	PART	participle
GEN	genitive	PREV	preverb
IMPF	imperfect	RV	Ṛgveda
IMPV	imperative	SG	singular
INF	infinitive	subj.	subjunctive
INS	instrumental	tr.	transitive
intr.	intransitive	VOC	vocative

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