

# Ved. *-anta*, Gk. *-οντο*, and the thematic aorist in Vedic and Greek\*

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**Abstract:** The age and origin of the Indo-Iranian and Greek thematic aorist type with zero grade of the root is still a matter of debate. The goal of this contribution is to revisit the Vedic aorist injunctives in *-anta* of the type *budhánta*, *juṣánta*, etc., which are synchronically associated with the Vedic passive aorist, to discuss Greek comparanda, and to argue that 3pl. forms such as these were instrumental in the remodeling of inherited media tantum aorists (“stative-intransitive aorists”) into middle zero-grade thematic aorists in Indo-Iranian and Greek.

**Keywords:** Indo-Iranian, Vedic, Greek, passive aorist, thematic aorist, verbal endings

## 1 Introduction

In his seminal dissertation (Cardona 1960), our honorand argued that at least two thematic aorists with zero grade of the root (R(∅)-thematic aorists) must be reconstructed for Proto-Indo-European, namely *\*h<sub>1</sub>lud<sup>h</sup>-é/ó-* ‘came’ (Ved. *áruhat*, OIr. *luid*, *lotar*, Toch. A *läc* ‘went out’) and *\*u̯id-é/ó-* ‘saw’ (Ved. *ávidat* ‘found’, Gk. εἶδε ‘saw’, Arm. *egit* ‘found’). However, due to the lack of further equations and the fact that most attested thematic aorists are obvious innovations (often replacements of inherited root aorists, albeit usually with full grade of the root), most

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scholars have been reluctant to reconstruct this category for Proto-Indo-European (PIE; cf., e.g. Rix 2001, where all thematic aorists are treated as innovative). More recently, Jasanoff (2017) has argued for a PIE origin of the R(∅)-thematic aorist from *\*h<sub>2</sub>e*-conjugation forms such as the 3sg. *\*u̯id-é*, which were originally imperfective middles, but reanalyzed as active and aoristic by late PIE and remodeled with formally active, thematic endings (for the general mechanism of this replacement, cf. the discussion of Ved. *áduhat* ‘produced milk’ from *\*áduha* in Watkins 1969). These originally imperfective forms eventually replaced expected active root aorists of the type *\*u̯éid-m*, etc.

While Jasanoff (2017) focuses on the renewed active paradigm of the thematic aorist, there are a number of middle R(∅)-thematic aorist forms in Greek and Vedic that have hitherto not received much attention. Vedic forms such as the 3pl. aorist injunctives *juṣánta* ‘tasted, enjoyed’ (also ind. *ájuṣanta*), *budhánta* ‘woke up’, *mṛṣanta* ‘forgot’, while synchronically associated with a passive aorist paradigm, are formally and functionally quite close to a thematic aorist. These forms are usually analyzed as belonging to the passive aorist or its (thematized) suppletive middle root aorist. Thus Cardona (1960: 27) argues that *-anta* was a replacement of the passive aorist ending *-ra(n)* and was backformed from the active endings (that is, a “medialization” of the active athematic 3pl. *-an*). While this is indeed likely for cases like *kránta* ‘they make, procure’, it seems unlikely for media tantum forms like *juṣánta* and *mṛṣanta*. Watkins (1969: 37–38) argues that *-anta* from *\*-e/onto* in athematic aorist injunctives must be older than athematic *-ata* < *\*-nto* and points out that the endings *\*-r(o)/\*(e)nt(o)* alternate in other Indo-European languages in a manner similar to the quasi-suppletive pattern 3pl.aor.ind. *ábudhran*: 3pl.aor.inj. *budhánta* in Vedic, but remains agnostic as to the origin of this pattern.<sup>1</sup> Insler (1968), Kümmel (1996), and Gotō (2013)

<sup>1</sup>The quasi-suppletive distribution 3pl. indicative in *-ra(n/m)*: 3pl. injunctive in *-anta* (Hoffmann 1967: 227, fn. 225; cf. also Jamison 1979: 160) is indeed the norm for these forms, although there are exceptions (e.g. the 3pl. indicatives *ájuṣanta* in *RV*. 4.33.9a and *ah<sub>u</sub>vanta* in, e.g. *RV*. 4.6.9d), and it is possible that the distribution is at least in part due to metrical considerations: pairs like *ábudhran* and *budhánta* are metrically equivalent, and the *anta*-forms occur for the most part in cadences of 11- and 12-

treat these *anta*-forms as quasi-suppletive middle root aorist forms, but it seems redundant to operate with *two* (inherited?) root aorist stems for these roots.

The goal of this paper is to revisit the question of these “thematic” endings of the passive aorist in light of their connection with the origin of the thematic aorist and their relationship with the 3pl. middle ending *\*-ro* (Ved. *-ran/m*), as well as the status of the putative athematic 3pl. middle ending *\*-énto* reconstructed by, e.g. Rix (1992). I argue that the comparison of these forms with the likewise neglected middle forms of the thematic aorist in Greek (e.g. ἴδοντο ‘they saw’, etc.) can shed new light on the prehistory of this class. Specifically, I argue that the formal remodeling of the 3pl. of inherited “proto-middle” aorists with a recharacterized middle ending *\*-onto* was another source of the R(∅)-thematic aorist (besides the recharacterization of originally active forms like *\*uid-é* mentioned above) and explains its association with an otherwise formally “passive” paradigm (i.e. the passive aorist in Indo-Iranian). This implies that at least some of the Indo-Iranian and Greek aorist forms in *\*-onto* are inherited from (at least) the ancestor of the Graeco-Aryan languages, rather than independent innovations.

## 2 Background

Jasanoff (2003) argues that the Indo-Iranian passive aorist continues so-called “proto-middle”, stative-intransitive *\*h<sub>2</sub>e*-aorists—that is, aorists with (originally) canonical middle functions with *o*-grade of the root in the strong stem<sup>2</sup> and the *\*h<sub>2</sub>e*-conjugation set of endings, i.e. 1sg.

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syllable verses, as pointed out by our honorand (Cardona 1960: 27–28, based on Meillet 1920).

<sup>2</sup>Jasanoff (2003) posits original R(*o/e*) ablaut which was later replaced by R(*o/∅*) ablaut; this is revised by Jasanoff (2013) and Melchert (2013), who argue that by late PIE, only the 3pl. had R(∅), while the rest of the plural had taken on the *o*-grade of the strong stem. For present purposes, the important point is that the 3pl. had R(∅) in late PIE, which is undisputed.

**Table 1**  
\**h*<sub>2</sub>*e*-aorists

Root	meaning	Sanskrit	Avestan	Greek
<i>b<sup>h</sup>eud<sup>h</sup></i>	‘wake up’	<i>ábodhi</i>		
<i>ġen<sub>h</sub></i>	‘be born’	<i>ajani</i>		ἐγένετο
<i>k<sub>l</sub>eu</i>	‘hear’	<i>śrávi</i>	<i>srāuuī</i>	[κλύτε]
<i>leg<sup>h</sup></i>	‘lie down’			ἔλεκτο
<i>men</i>	‘remember’	<i>ámata</i>	<i>mañtā</i>	ἐμάνην
<i>mers</i>	‘forget’	<i>mṛṣṭhās</i>		
<i>sed</i>	‘sit down’	<i>ásādi</i>		

\*-*h*<sub>2</sub>*e*, 2sg. \*-*th*<sub>2</sub>*e*, 3sg. -*e*, 3pl. \*-*rs* → \*-*ro*<sup>3</sup> (cf. the Indo-Iranian and Greek active perfect endings, which are archaic remnants of the original \**h*<sub>2</sub>*e*-inflection). As argued by Jasanoff, \**h*<sub>2</sub>*e*-aorists have reflexes as passive aorists or athematic middle root aorists in Indo-Iranian and as passive (η-) aorists or athematic middle root aorists in Greek. Table 1 gives some examples of reflexes of stative-intransitive \**h*<sub>2</sub>*e*-aorists in Indo-Iranian and Greek, based on Jasanoff (2003: 160).

Late ω-stative-intransitive \**h*<sub>2</sub>*e*-aorists formally renewed their endings as overtly middle in various ways. Thus, the late PIE middle root aorist of the root \**b<sup>h</sup>eud<sup>h</sup>* ‘wake up, become aware’ had the 3sg. & 3pl. middle forms shown in (1), which eventually turned into the attested passive aorist paradigm in Vedic:

<sup>3</sup>The original ending \*\*-(*é*)*rs* regularly developed to \*-*ēr* and \*-*rs* (whence Ved. -*uh*, Av. -*ərəš*) and was replaced by the renewed ending \*-*ro*, formally recharacterized as middle by the addition of the middle marker \*-*o*, in late PIE, cf. Jasanoff 2003: 40, 56–57, 167, fn. 43.

- (1) Late PIE middle aorist of  $*b^h eud^h$   
 3.sg.            3.pl.  
 $*b^h \acute{o}ud^h -e^4$   $*b^h ud^h -r\acute{o}$

In Greek, the closest corresponding aorist formation is the thematic middle aorist ἐπύθουην ‘learned’, whose 3pl. ἐπύθοντο is an exact formal (and close semantic) match for the Vedic injunctive *budhánta*. To get from the reconstructed 3pl. aorist  $*b^h ud^h -r\acute{o}$  to attested thematized forms like Ved. *budhánta* and Gk. ἐπύθοντο, we need to assume that the inherited 3pl. ending *-ro* was not middle enough, and that the medialization of this paradigm was taken one step further by introducing the explicitly middle thematic 3pl. *-onto*, presumably in analogy with already existing middle thematic presents (though I concede that this needs further study). These renewed forms then acted as the starting point for the backformation of a full-blown thematic middle paradigm for a small class of medium tantum aorists in Greek and Indo-Iranian.<sup>5</sup> Such a development would account for the association of R(∅)-thematic aorists with stative-intransitive aoristic roots, for their zero grade of the root, and for the association of the Indo-Iranian 3pl. ending *-anta* with the passive aorist paradigm. The claim is therefore that certain middle R(∅)-thematic aorists in Vedic and Greek are continuants of (formerly stative-intransitive) non-alternating middle aorists and therefore originally identical formations<sup>6</sup> which can be reconstructed for (at least) the immediate ancestor of Graeco-Aryan.<sup>7</sup>

<sup>4</sup>Thus Jasanoff (2019: 62); the original proto-middle ending *-e* was later replaced by renewed middle markers such as *-o*, *-to* or thematic *-e-to*, *-o-to* in the middle paradigms of the individual IE branches and by *-i* in the Indo-Iranian passive aorist. See also Jasanoff (2003: 48–56, 205–8) for a slightly different chronology of this replacement.

<sup>5</sup>Note that this medialization could also be athematic, as evidenced by  $*h_2e$ -aorist associated athematic middles like Ved. *ámata*, Gk. ἔλεχτο, or the athematic aorist 3pl. *yujata* in *RV*. 5.52.8.

<sup>6</sup>Cf. van de Laar 2000: 261 on Gk. ἐπύθουην and Ved. *budhánta* as “probably *uridentisch*”.

<sup>7</sup>That is, “inner-Indo-European” (cf. Jasanoff 2003: 203, 2019: 23, fn. 23; Fellner and Grestenberger 2018: 63 fn. 1) or possibly a subbranch thereof.

Due to the productivity of the thematic endings in Indo-Iranian and Greek, potential candidates for such inherited middle thematic aorists must fulfill certain criteria: (1) they must be associated with a passive aorist paradigm in Indo-Iranian, (2) they must have the right semantic and syntactic profile, i.e. they must have canonical middle functions or be derivable from such functions (e.g. inchoative, stative, experiencer, speech act verbs; not necessarily intransitive, cf. Kemmer 1993; Kaufmann 2007; Grestenberger 2014, 2016, 2018), (3) no older, primary intransitive aorist formation with the same function is attested, and (4) they are *media tantum* or, if an active paradigm exists, it is demonstrably secondary to the middle paradigm. In the following sections, potential candidates in Vedic and Greek will be evaluated according to these criteria (although it must be stressed that for different reasons, not all of them may apply in each case). For reasons of space, I must forgo the discussion of potentially relevant Avestan forms such as the Old Avestan 3pl. aorist injunctive *xšəntā* ‘they rule’ in *Y.* 48.5, whose age and etymological connections are disputed (see Mayrhofer 1992–2001: I.426–427 and Cheung 2007: 451–52 for an overview of the proposals).

### 3 Vedic

Table 2 summarizes the relevant Vedic verbs with R(ø)-aorist forms in *-anta*. I exclude forms like *kránta* which belong to an obvious synchronically alternating root aorist paradigm and for which backformation from the 3pl. (i.e. *ákran*), cannot be excluded.<sup>8</sup> In the following, these forms are discussed in more detail.

#### 3.1 *juṣ* ‘like, enjoy’

The 3pl. aorist (*á*)*juṣanta* occurs 23 times in the *Ṛgveda*, 14 of which occur in the cadence of a Triṣṭubh (one occurs in the cadence of a Gāyatrī

<sup>8</sup>Also excluded are *anta*-forms that belong to otherwise active paradigms and do not display a discernible meaning difference with respect to the active form (with the exception of *vidánta* in Section 3.4); see Jamison (1979) on these (mostly present stem) forms.

**Table 2**  
Vedic  $R(\emptyset)$ -aorist forms in -anta

-anta	them. aor.	pass. aor.	root
(á)juṣanta	ajuṣat	jóṣi, ajuṣran	juṣ ‘enjoy’
budhánta	—	ábodhi, ábhudran/-m	budh ‘wake up, notice’
mṛṣanta	—	—	mṛṣ ‘forget’
vidánta	ávidat	(á)vedi	vid ‘find’
(á)h(u)vanta	áh(u)vat	—	hū ‘call, invoke’

and two in the cadence of an Uṣṇih). It is part of a fully-fledged, almost exclusively middle thematic aorist paradigm. Kümmel (1996: 46) and Rix (2001: 167) argue that this is a thematization of an old root aorist, but the only evidence adduced for this aorist is the Ṛgvedic middle participle *juṣāṇá-*,<sup>9</sup> which has been argued to belong to the passive aorist attested in the 3pl. *ajuṣran* ‘they liked’ in *RV.* 1.71.1. This is corroborated by the close semantic and syntactic match between *ajuṣran* in *RV.* 1.71.1, (2), and *juṣāṇá-* in, e.g. *RV.* 7.7.2, (3).<sup>10</sup>

(2) *RV.* 1.71.1cd:

*svásārah śyāvīm áruṣīm ajuṣrañ*  
*citrām uchántīm uṣásam ná gāvah.*

“The sisters [=fingers] have delighted in the dusky one and in the ruddy one [=two fire-kindling sticks], like cows in the brilliantly dawning dawn.”<sup>11</sup>

(3) *RV.* 7.7.2ab:

*Ā yāhi agne pathiyā ánu svā*  
*mandró devānām sakhiyám juṣāṇáh;*

<sup>9</sup>The age of the 3sg. aor.subj. *juṣat* in *RV.* 1.1675 is controversial, cf. Narten (1964: 120, fn. 322).

<sup>10</sup>Jamison and Brereton (2014) consistently translate *juṣāṇá-* as non-anterior; cf. also Lowe (2015: 210–12), who argues that *juṣāṇá-* is non-past.

<sup>11</sup>All *RV.* passages cited after van Nooten and Holland (1994); translations from Jamison and Brereton (2014) unless otherwise stated.

“Journey here along your own paths, o Agni, as the delighting one who takes pleasure in companionship with the gods;”

The thematic middle *ájuṣanta* is functionally identical to the passive aorist in (2), cf. (4).

(4) *RV.* 4.33.9ab:

*Ápo h<sub>i</sub> eṣām ájuṣanta devá*  
*abhí krátvā mánasā dídhiyānāḥ;*

“Because the gods were pleased at their work, reflecting on it according to their purpose and with their thought, ...”

The root *juṣ* goes back to PIE \**ǵeus* ‘taste, try’ which made a perfect attested in Ved. *jujóṣa*, Goth. *kaus*, etc., an \*-*eie/o*-iterative, and possibly an old reduplicated present. Greek has an innovated *s*-aorist ἐγεύσαμην (pres. γεύομαι), and like in Vedic the verb is medium tantum in the relevant meaning (‘try, taste’),<sup>12</sup> which suggests that this was indeed an inherited (“proto-”)middle. Although it has been morphophonologically remodeled, the Greek *s*-aorist is the closest attested equivalent of the Vedic passive aorist, cf. (5). However, it takes genitive objects, while the finite forms of Vedic *juṣ* have almost exclusively accusative objects. For these reasons, I have refrained from treating any of the Greek forms separately in Section 4, since they cannot be taken as cognates of the Vedic forms in the relevant sense.

(5) Pindar, *Nem.* 6.24–25:

ἐπεὶ οἱ τρεῖς ἀθλοφόροι πρὸς ἄκρον ἀρετᾶς  
ἦλθον, οἷτε πόνων ἐγεύσαντο.

“Since he had three victorious (sons), who reached the summit of excellence and tasted (of) the toils.”

The functional overlap between the passive aorist *ajuṣran* and the forms of the thematic aorist (especially (*á*)*juṣanta* and the very common 2sg. middle imperative *juṣásva*), the canonical middle meaning and the gen-

<sup>12</sup>The oppositional active causative γεύω ‘give a taste, let taste’ is an obvious backformation.

eral medium tantum behavior of this verb in Vedic make it likely that the relationship between *ájuṣran* : (*á*)*juṣanta* can be compared to that of *ábudhran* : *budhánta* (see the next section), in that the latter is a morphologically renewed variant of the former that gave rise to an independent thematic aorist paradigm. However, due to the lack of an exact equation with Greek, we cannot determine the age of this replacement with certainty.

### 3.2 *budh* ‘awake, become aware’

The 3pl.aor.inj. *budhánta* ‘awaken(ed)’ is attested three times in the *R̥gveda*, always in the cadence of a Triṣṭubh. Syntactically and semantically, it matches the 3pl. passive aorist *abudhran* (2x) and *ábudhram* (1x) (3sg. *ábodhi*, 11x), e.g.:

(6) *R̥V.* 7.80.1ab:

*Práti stómebhir uṣásam vásiṣṭhā*  
*gīrbhír víprāsaḥ prathamā abudhran;*

“With their praises, with their hymns, the Vasiṣṭhas, inspired poets, have awakened first in response to Dawn.”

(7) *R̥V.* 7.9.4cd:

*susamdr̥ṣā bhānúnā yó vibhāti*  
*práti gāvah samidhānám budhanta.*

“He who radiates forth with a radiance beautiful to see—cows awaken in response to him as he is kindled.”

Kümmel (1996: 76) interprets *budhánta* as a 3pl. injunctive of a suppletive middle root aorist of this root (Hoffmann 1967: 227), but as in the case of *juṣanta* it is unlikely that *budhánta* continues a paradigm separate from the attested passive aorist. In fact, the only other form that may point to a root aorist is once again an athematic participle, *budhāná-* (3x), which could equally well belong to the passive aorist paradigm (including *budhánta*) both semantically and syntactically, e.g.:

(8) *RV.* 7.68.9ab:

*Eṣá syá kārúr jarate s<sub>uu</sub>ktáir*

*ágre budhāná uṣásām sumánmā;*

“This praise-poet here awakens with good hymns, rousing himself at the beginning of the dawns, bringing good thoughts.”

Vedic *budh* continues PIE *\*b<sup>h</sup>eud<sup>h</sup>* ‘awake, become aware’, a change-of-state root with an old perfect (Ved. *búbodh-*, *bubudhāná-*, Gk. πέτυσμαι, Goth. *-bauþ*, etc.) and full-grade thematic present (Ved. *bódhati*, OAv. *baodant-*, Gk. πεύθομαι, Goth. *-biudan*, etc.). We have already seen in Section 2 that there are good reasons for reconstructing an old *\*h<sub>2</sub>e*-conjugation (“proto-middle”) aorist for this root, and the Vedic forms discussed in this section fulfill all four criteria proposed at the end of Section 2. Their Greek cognates are discussed in Section 5.1 below.

### 3.3 *mṛṣ* ‘neglect, forget’

*mṛṣanta* is attested once in a Triṣṭubh cadence:

(9) *RV.* 7.18.21c:

*ná te bhojásyā sakh<sub>i</sub>yám mṛṣant<sub>a</sub>*

“they did not neglect their partnership with you, who provided for (them).”

An old root aorist paradigm is suggested by the 2sg. middle injunctive *mṛṣthās* in *RV.* 3.33.8. Even though no unambiguous passive aorist forms are attested, taken together the attested verb forms of this root in Vedic (active perfect *mamárṣa*, *ya*-present) and Tocharian (Toch. B subjunctive V 3sg. *mārsaṃ*, present III 3sg. *mārsetär* ‘forgets’) point to a *\*h<sub>2</sub>e*-conjugation profile (cf. Jasanoff 2003: 159–68 on the Tocharian evidence).

### 3.4 *vid* ‘find; know’

The 3pl. *vidánta* in *RV.* 4.1.14d, (10), is synchronically best analyzed as belonging to the paradigm of the inherited thematic aorist *ávidat* ‘found’.

- (10) *RV.* 4.1.14:  
*Té marmṛjata dadṛvāṁso ádriṁ*  
*tád eṣām anyé abhúto ví vocan;*  
*paśváyāntrāso abhí kārám arcan*  
*vidánta jyótiś cakṛpánta dhībhíḥ.*

“They [=the forefathers/Aṅgirasas] cleaned themselves, after having split the stone. This (deed) of theirs the others proclaimed all about. Lacking ropes to hold the livestock, they sang the decisive act: “They found the light! They sought it with their insightful thoughts!””

The root also forms a passive aorist *avedi* ‘was found (as)’ and a ‘stative’ *vidé* ‘is known’ (3pl. *vidré*, cf. Kümmel 1996: 102–5), which is sometimes analyzed as belonging to a separate synchronic root *vid*<sup>2</sup> ‘know’ (besides *vid*<sup>1</sup> ‘find’); historically both go back to *\*uēid* ‘see’. The derivational history of the thematic aorist of this root is extensively discussed by Jasanoff (2017), who argues that the active 3sg. *\*uid-é-t* arose through a reanalysis of a 3sg. “*h*<sub>2</sub>*e*-conjugation active” *\*uid-é[t]* (itself originally the internally derived protomiddle present of a protomiddle, “stative-intransitive”, *\*h*<sub>2</sub>*e*-aorist). In this case, the thematic aorist clearly continues a (late) PIE category that was formally and functionally active, as is its Vedic reflex, *ávidat*.

However, the middle 3pl. *vidánta* is odd in that the thematic aorist in Vedic is otherwise exclusively active, as expected under Jasanoff’s approach. Moreover, *vidánta* does not seem to have any specifically “middle” meaning in *RV.* 4.1.14, or indeed any meaning difference compared to the corresponding active 3pl. This makes it unlikely that it was formed as an oppositional middle to the active thematic aorist. Of course, synchronically it cannot belong to the passive aorist or “stative” either, since these forms are indeed always passive (or “patientive”, cf. Kümmel 1996). It is therefore possible that its preform *\*uidónto* was originally associated with a medium tantum *\*uóid-(e)\*uid-* ‘know’ (= the formal *\*h*<sub>2</sub>*e*-conjugation predecessor of Ved. *ávedi*) as a thematic replacement of its expected 3pl. form *\*uid-ró*, cf. the pairs (*á*)*juṣanta/ajuṣran* and

*budhántalábudhran* above. When *avedi* became reanalyzed as oppositional passive (“patientive”), *vidánta* stayed transitive (for whatever reason) and was therefore grouped with the semantically closer, but formally active paradigm of *ávidat*. While appealing, this is of course a somewhat speculative proposal, since *vidánta* is attested only once in a Triṣṭubh opening, and may therefore also be a nonce form, or part of the replacement tendency of secondary active *-an* by *-anta* in non-alternating Ṛgvedic verbal stems discussed by Jamison (1979).

### 3.5 *hū/hav*<sup>i</sup> ‘call’

Similar to *vid*, this root seems to have made a protomiddle (“stative”) present *\*ḡ<sup>h</sup>uH-ó(r)*, reflected in Ved. *huvé* ‘calls (to)’ (*hūmáhe* ‘we call’), Toch. B. *kwātär* ‘calls’ and an active thematic aorist *áh(u)vat* ‘called’. The expected and reconstructable passive aorist *\*áhăvi* (or *\*áhväyi*, cf. Rix 2001: 180–81 on *\*ḡ<sup>h</sup>ueH* vs. *\*ḡ<sup>h</sup>euH*) that presumably was the derivational basis of both these stems is not attested, although Kulikov (2006: 55–56) posits that the passive uses of the participle *huvāná-* (i.e. ‘being called’) belong precisely to this expected passive aorist paradigm.<sup>13</sup>

However, the 3pl. middle *áh(u)vanta* is attested four times in the Ṛgveda and is always syntactically active and transitive, e.g.:

- (11) ṚV. 5.29.8:  
*Trí yác chatá mahiṣāñām ágho mās*  
*trí sárāmsi maghāvā som<sub>i</sub>yāpāḥ;*  
*kārām ná víśve ah<sub>u</sub>vanta devá*  
*bhāram índrāya yád áhiṃ jaghána.*

“When you the bounteous devoured the flesh of three hundred

<sup>13</sup>But note that *huvāná-* is transitive at least once (ṚV. 7.30.3, cf. the commentary by Jamison and Brereton (2020: 5) on ṚV. 4.1.13), like the stative/middle present forms. I generally agree with the skepticism expressed by Lowe (2015: 232) regarding the reconstruction of unattested finite passive aorists based solely on the evidence of participial forms. Note, however, that this does not apply to the forms *budhāná-* and *juṣāná-* discussed above, since these do correspond morphologically and syntactically to attested finite passive aorists.

buffaloes and drank three somian lakes, all the gods called “Carry (the day)!” to Indra as (a gambler calls) “Game!” when he smashed the serpent.”

These 3pl. forms may technically belong to the paradigm of either the present stem of “stative” *huvé* or the thematic aorist *áhuva-* (thus Lubotsky 1997: II: 1659–1660; Gotō 2013: 110). In the latter case, *áh(u)vanta* would have a similar status as (*á*)*juṣanta*, *budhánta*, etc., and could have acted as the starting point for the development of the originally middle thematic aorist attested in Vedic. This thematic aorist is the oldest attested aorist formation of this root, and the canonical middle function and *\*h<sub>2</sub>e*-conjugation profile of this root (“root stative-intransitive” present *huvé*, full grade thematic present Ved. *hávate*, YAv. *zauuaiti* ‘curses’, OCS *zovq* ‘call’, though it is possible that this was originally a present subjunctive) mean that these *anta*-forms fulfill three of the four criteria suggested in section 2 for discerning potentially inherited thematic aorist middles. However, there is no attested passive aorist in Indo-Iranian and no cognates are known from Greek, so this still remains a somewhat uncertain case.

### 3.6 Other

There are a number of other potentially relevant Vedic *anta*-forms that are briefly reviewed in this section.

The 3pl. aorist (*a*)*iṣanta* in *RV*. 1.126.5 and aorist subjunctive *iṣanta* in *RV*. 1.134.5 have been excluded because of their unclear status. Lubotsky (1997) analyzes both forms as aorists of *iṣi* ‘send, propel’ (Rix 2001: 234: *\*h<sub>1</sub>eṣh<sub>2</sub>*), whereas Jamison and Brereton (2014) interpret the former as belonging to *iṣ* ‘search for, seek’ (Rix 2001: 260 *\*h<sub>2</sub>eṣ*), cf. also Joachim (1978: 43–45). At least in the case of *aiṣanta* ‘they seek’, the thematic aorist seems to be an innovation compared to the older *s*-aorist in OAv. *āiš* ‘wishes’ (Rix 2001: loc. cit.), and since neither root seems to have a *\*h<sub>2</sub>e*-conjugation profile, I leave these forms aside.

(*a*)*kṛpanta* ‘they yearn for, pine after’ occurs in *RV*. 9.85.11, 9.99.4, 10.24.5, and 10.123.4, and there is also a 3pl. *akṛpran* in a Triṣṭubh-

cadence in *RV*. 4.2.18 that could attest to a passive aorist paradigm of the same root (*kṛp* ‘yearn, pine for’). This is how Jamison and Brereton (2014) interpret both *akṛpran* and the attested instances of (*a*)*kṛpanta*. However, the verse 4.2.18 is difficult to interpret (cf. the commentary by Jamison and Brereton (2020)), and Kümmel (1996) argues that *akṛpran* is better interpreted as belonging to a root *krap*<sup>2</sup> ‘sich gestalten’ (cf. also Gotō 1987: 114; Mayrhofer 1992–2001: I.409; Werba 1997: 389, 415), also attested in *ānu kṛpá-<sup>te</sup>* in *RV*. 1.113.10 and 8.76.11, and possibly related to *kṛp* ‘fit, be suitable’. (*á*)*kṛpanta* and *kṛpáte* are usually interpreted as belonging to a class VI present (cf. Hoffmann 1967: 132; Hill 2007: 121–23). However, Jamison (1983: 57) argues convincingly that this present in turn goes back to an older thematized aorist that arose precisely through thematization of the root aorist attested in *akṛpran*. In that case, we may indeed be dealing with a *\*h<sub>2</sub>e*-aorist averbo similar to the ones discussed above. Unfortunately, this root does not have any cognates outside of Indo-Iranian, so nothing can be said about these forms from a comparative perspective.<sup>14</sup>

*atviṣanta* ‘they have grown excited’ (*tviṣ* ‘grow excited’) in *RV*. 8.94.7a and *átviṣur* ‘they were in motion’ (Jamison and Brereton 2014) in *RV*. 10.56.4c are traditionally interpreted as imperfect forms, but more recently as aorists (albeit only tentatively, e.g. Kümmel 2000: 224–25; Rix 2001: 654; Hill 2007: 281). In that case, *atviṣanta* could simply belong to a thematized version of the root aorist attested in *átviṣur*, though this itself is formally odd because of its unexpected 3pl. ending. Joachim (1978: 89) tentatively follows Wackernagel in proposing that this form is actually a nonce form based on the three other forms in *-ur* in the same verse, acting as a stand-in for expected *\*atviṣan*. In this case we could be dealing with an Indo-Iranian thematic aorist. However, the oscillation between active and middle morphology

<sup>14</sup>The 3pl. *cakṛpánta* in *RV*. 4.1.14d is ambiguous between a reduplicated aorist injunctive and a (thematized?) 3pl. perfect middle injunctive, cf. Bendahman (1993: 181), who speculates that it might be an *Augenblicksbildung* to complement the other aorist injunctives in the verse, and Kümmel (2000: 148). Note that the problematic form *vidánta* is found in the same pāda, cf. ex. (10) in the main text.

without any clear functional differentiation makes it difficult to decide on the original inflection. Moreover, traces of a *\*h<sub>2</sub>e*-conjugation profile is limited to the fact that this root makes an alternating full-grade thematic present *σειώ* ‘shake, move (sth.)’ in Greek.<sup>15</sup> However, there is no passive aorist in Indo-Iranian or any other old aorist that would point to such a proto-middle in the older Indo-European languages, so *atviṣanta* alone cannot be considered particularly strong evidence for such an aorist.

Hoffmann (1952–1957: 122–29 = 1975–1976: II.359–364) has argued forcefully that the 3pl. *naśanta* ‘they reach’ (4x; *naś* ‘reach’) and related “thematic” forms such as the 3pl. *naśan* should be interpreted as root aorist subjunctives of the athematic aorist *ānaṭ* ‘reached’. Although this explanation is difficult for *ṚV.* 7.1.22cd *mā te asmān durmatāyo ... naśanta* “Let not bad thoughts from you (...) reach us, ...”, where *mā* synchronically requires an injunctive (cf. also *mā ... naśan* in *ṚV.* 2.23.8 and 2.27.14),<sup>16</sup> it seems superior to operating with a thematic present or thematic aorist injunctive, given that the expected R(∅)-thematic aorist should have been *\*aśanta*.

The 3pl. form *mananta* ‘they thought’ (*man* ‘think’) in *ṚV.* 10.67.2d *yajñāsya dhāma prathamām mananta* “[the Ṇgirasas] pondered the first

<sup>15</sup>The observation that full grade thematic presents are often associated with R(∅)-thematic aorists goes back at least to Brugmann (1892: 913); see also Cardona (1960: 59), who adds the association with *o*-grade perfects in Greek, and Hollifield (1977: 66–67), who argues that these thematic aorists continue original middle root aorists, which would suggest an association with an original proto-middle. However, given how extremely productive full grade thematic presents are in almost all the older Indo-European languages, I have refrained from treating the association with such a present as sufficient evidence for a *\*h<sub>2</sub>e*-conjugation averbo. Nevertheless, Brugmann’s generalization deserves further study.

<sup>16</sup>Hoffmann’s explanation of the injunctive *naśanta* in *ṚV.* 7.1.22cd as a metri causa nonce form is generally accepted (Gotō 1987: 82; Rix 2001: 283, n.2), though one could speculate that it and its active relative *naśan* in 2.23.8 and 2.27.14 preserve old subjunctives that were reanalyzed as injunctives and were preserved in the metrically rigid cadences in which they are all attested. This would, however, violate Occam’s razor since one would then have to assume that a synchronic aorist subjunctive stem *naśa-* was created besides the older, reanalyzed stem. Either way this form does not constitute much of an argument for an old R(∅)-thematic stem.

foundation of the sacrifice” is usually interpreted as an aorist subjunctive of the middle root aorist 3sg. *ámata* attested in *RV.* 10.68.7 (also 1pl. *ámanmahi*, cf. Narten 1964: 190–91; Gotō 1998: 1017), but Gotō (1998: loc. cit.) actually classifies the form as aorist injunctive. Given the otherwise fairly well-established *\*h<sub>2</sub>e*-conjugation profile of the root *\*men* (Ved. class IV pres. *mányate*, Av. *mainiia-*, Gk. *μάννομαι*, OIr. *-mainethar*, etc.; perfect Ved. *mamn-*, YAv. 3sg. *mamne* ‘has thought’, Gk. *μέμνονα*, Lat. *meminī*, etc.; middle root aorist Ved. *ámata*, OAv. *maṇtā*, indirectly continued by Greek *ἐμάνην*, cf. Jasanoff 2003: 155–60, 2004: 161–64; etc.), it is very likely that *mananta* should be added to the list of middle aorist injunctives discussed in the previous section (cf. Table 2). However, this root does not make a passive aorist in Indo-Iranian or a thematic aorist in Indo-Iranian or Greek, and so is not immediately relevant for the present purposes.

The 3pl. *yuvanta* in *RV.* 8.71.4 (cf. also *áyuvanta* in *AV.* 4.23.5) is usually analyzed as imperfect of the class VI “aorist present” *yuvāti* ‘holds together, joins (sth.)’ from <sup>1</sup>*yu* ‘unite, join together’ on formal grounds, but Hill (2007) points out that semantically it makes more sense to analyze it as belonging to <sup>2</sup>*yu* ‘separate, hold off’ (thus following Oldenberg (1909–1912: II.13) and Joachim (1978: 14)):

- (12) *RV.* 8.71.4:  
*Ná tám agne árātayo mártam yuvanta rāyáh;*  
*yám tráyase dāś<sub>u</sub>vám̐sam.*  
 “Hostilities do not keep that mortal away from wealth, o Agni,  
 the pious one whom you safeguard.”

Even so, it is difficult to decide whether this form is a present or an aorist injunctive, and neither root *yu* has a strong *\*h<sub>2</sub>e*-conjugation profile.<sup>17</sup>

Finally, the odd thematic 3pl. injunctive *yujanta* ‘they yoked’ (*yuj* ‘yoke’) in *RV.* 6.66.6b (*ubhá yujanta ródasī suméke* “[Just these mighty ones in a bold host] yoked both well-fixed world-halves [=rodasī] through their vast power.”) is transitive and agentive like the athematic

<sup>17</sup>The 3sg. passive aorist *áyāvi* in *VS.* 38.15 belongs to <sup>2</sup>*yu* ‘separate, hold off’, but seems to be a relatively recent oppositional passive, cf. Kümmel (1996: 88).

middle aorist forms (e.g. *áyukta* in *RV.* 7.60.3, *ayujmahi* in *RV.* 6.53.1, etc.), whereas the passive aorist forms *áyoji* and *áyujran* are (unsurprisingly) syntactically passive, cf. Kümmel (1996: 88–92). It would therefore be somewhat counterintuitive to connect *yujanta* with the synchronic passive aorist, though it remains problematic from a formal point of view. A remodeling of active *\*yuján* → *yujánta*, parallel to *krán* → *kránta* (cf. Cardona 1960: 27 and Section 1 above) seems like the best available explanation.

## 4 Greek

### 4.1 ἐπύθοντο

The root *\*b<sup>h</sup>eud<sup>h</sup>* ‘become awake, aware’ makes a zero grade thematic middle aorist ἐπυθόμεην ‘I learned’ in Greek that is already attested in Homer. Homeric Greek also has the corresponding full grade thematic present πύθομαι ‘I learn, perceive’ (cf. Ved. *bódha-*, though note the semantic difference) and a reduplicated aorist (3sg.opt. πεπύθειτο). The latter has the same meaning as the unreduplicated thematic aorist and should be explained as a metrically convenient variant of it (thus Bendahman 1993; Beckwith 1996). The root is consistently medium tantum in archaic Greek, which supports the reconstruction of an old proto-middle. The semantic development ‘become awake’ > ‘become aware of; learn of sth.’ does not seem problematic to me. Although the Homeric forms of πύθομαι and ἐπυθόμεην are mostly transitive with accusative objects, cf. (13), the object can also be marked with the genitive, (14).

- (13) Hom., *Il.* 5.702:  
 ὥς ἐπύθοντο μετὰ Τρώεσσιν Ἄρηα  
 “... when they noticed/became aware of Ares among the Trojans.”
- (14) Hom., *Il.* 15.224:  
 μάλα γάρ κε μάχης ἐπύθοντο καὶ ἄλλοι

“For indeed also others had noticed/become aware of (our) fight.”

This corresponds exactly to the use of verbal forms of Vedic *budh* with genitive and accusative objects in the meaning ‘become aware of’. The transitive use in Greek is therefore straightforwardly explicable as extension of this use. Moreover, the R(∅)-thematic aorist is the oldest attested aorist stem in Greek. Taken together with the Vedic evidence discussed in Section 3.2 above, the equation Ved. *budhá-*: Gk. πύθη/ο- fulfills all the criteria for an old middle thematic aorist proposed in Section 2.

## 4.2 ἴδοντο

We have already seen that there is fairly widespread consensus that both Indo-Iranian and Greek inherited an active thematic aorist *\*uid-é-t* (Ved. *ávidat* ‘found’, OAv. *vīdat* ‘finds’, Gk. εἶδε ‘saw’, Arm. *egit* ‘found’). However, there are also traces of an old (maybe even older) formally middle paradigm. We have already discussed the Vedic middle form *vidánta* above, but not too much weight can be placed on this isolated form. In Greek, however, middle forms of the thematic aorist εἶδε are found already in Homer in the indicative, subjunctive, and optative, and crucially do *not* act as oppositional middles (“be seen”). Rather, their use is identical to the active forms.

- (15) Hom., *Il.* 4.374:  
 ὡς φάσαν οἳ μιν ἴδοντο πονεύμενον  
 “... as they say who saw him toiling”  
 (also augmented εἶδοντο, e.g. in *Il.* 16.278)
- (16) Hom., *Il.* 10.47–48:  
 οὐ γάρ πω ἰδόμην οὐδ’ ἔκλυον αὐδήσαντος  
 ἄνδρ’ ἓνα τοσσάδε μέρμερ’ ἐπ’ ἤματι μητίσασθαι  
 “For I have never seen or heard somebody saying that one man  
 devised so much mischief in one day ...”

Bechtel (1924) notes that Ionic authors (including Herodotus) have a preference for middle inflection of this verb,<sup>18</sup> which suggests that some dialects systematically opted for middle rather than active inflection (not uncommon in verbs of perception). In that case, the middle R(ø)-thematic aorist in Ionic could be a direct continuant of its late PIE proto-middle predecessor *\*uóid-/uid-*. As discussed in Section 3.4, Vedic may have an exactly corresponding form in the hapax *vidánta*. However, unlike in the case of *budhánta*, this form cannot be synchronically analyzed as belonging to the passive aorist paradigm of *vid* ‘find’, and is moreover isolated in that the Vedic aorist is otherwise active. This equation is therefore less secure.

### 4.3 Other

Other potentially old thematic middle aorists in Greek include *ἔγρετο*, *ἐπιθόμην*, and *ἔσπόμην*.

*ἔγρετο* is the oldest extant aorist formation of the root *\*h<sub>1</sub>ger* ‘wake up’ acknowledged by Rix (2001: 245), where it is analyzed as thematized root aorist. The root has an old stative perfect (Ved. *jagára*, YAv. *jayāra*, Gk. *ἐγρήγορε* ‘is awake’) and a potentially old full grade thematic present, Ved. *járate* ‘is waking up’. It is therefore a good candidate for an old proto-middle aorist both from a semantic (“woke up”) and a morphological point of view, but lacks the relevant comparanda in Indo-Iranian.

The situation is similar for *ἐπιθόμην*, the oldest aorist of *\*b<sup>h</sup>eið<sup>h</sup>* ‘come to trust, have faith in sbdy.’ according to Rix (2001: 71), which also makes a full grade thematic middle present *πέιθομαι* (cf. also Lat. *fidō* ‘trust’, Goth. *beidan* ‘wait’) and a stative perfect *πέποιθα* in Greek. In this case, too, the lack of comparanda in Indo-Iranian makes it difficult to assess the age of this potential proto-middle system.

The thematic aorist *ἔσπόμην* ‘followed’ and the full grade middle present *ἔπομαι* form a similar pair in Greek, but in this case the relevant

<sup>18</sup>Cf. also the Homeric formula *θαῦμα ἰδέσθαι* ‘a marvel to behold’ and the common Attic middle imperative *ἰδοῦ* ‘Look! Behold!’ < *\*uideso*.

root, *\*sek<sup>u</sup>* ‘accompany, follow’, has been argued to retain traces of an older middle root aorist in Indo-Iranian, crucially the participle Ved. *sacāná-*, a hapax in *RV*. 6.20.2. It is possible that this points to an older (proto-)middle root aorist, which in Vedic would have developed into a middle or passive aorist, but Lowe (2015: 247 & fn. 247) argues that *sacāná-* is an innovation, and the age of the other potential aorist forms in Indo-Iranian is likewise debated (Narten 1964: 262; Rix 2001: 525–26; Lowe 2015: 247 & fn. 247; Grestenberger 2016: 129). The fact that this verb was deponent already in Proto-Indo-European suggests an old proto-middle paradigm that lost its “middle semantics” at some point, in which case Ved. *sacāná-* and Gk. ἐσπόμην may be indirect continuants of the expected aorist *\*sók<sup>u</sup>-el\*s(e)k<sup>u</sup>-*, but they could just as well be independent, unrelated innovations.

## 5 Discussion and conclusion

We have seen in the previous sections that there are at least five cases in Indic (*juṣ*, *budh*, *mṛṣ*, *vid*, *hū*) and two cases in Greek (ἐπύθοντο, ἴδοντο) in which an apparent R(θ)-thematic middle aorist, specifically a 3pl. form in *-anta*, *-οντο*, arguably continues an older proto-middle (“*h<sub>2</sub>e*-conjugation”) aorist paradigm. In the case of Ved. *budhánta* : ἐπύθοντο, we can reconstruct a late PIE or Pre-Graeco-Aryan 3pl. *\*(e)b<sup>h</sup>ud<sup>h</sup>ónto* as the 3pl. continuant of that paradigm (its more archaic predecessor *\*b<sup>h</sup>ud<sup>h</sup>ró* survives in the Vedic passive aorist). A comparable, but less secure equation is Ved. (?)*vidánta*: Ion. Gk. ἴδοντο < *\*uidónto*. Moreover, *juśánta* and *mṛśanta*, despite not having any comparanda in Greek, in all likelihood also reflect Pre-Graeco-Aryan *\*ǵusónto* and *\*mṛśónto*. Somewhat less secure is *áh(u)vanta* < *\*(e)ǵ<sup>h</sup>uHonto*. We have also seen potential additional cases in Vedic and Greek that may turn out to have similar derivational histories.

This suggests that one route of development for inherited middle aorists (especially, but not exclusively, media tantum aorists) continuing older “stative-intransitive” *h<sub>2</sub>e*-conjugation aorists in Graeco-Aryan was via the introduction of a thematic 3pl. *-onto* that replaced the older, late

PIE 3pl. ending *\*-ro*. The starting point of this development can still be observed in Vedic, where the relevant forms in *-anta* are associated with passive aorist paradigms and functionally alternate with 3pl. forms in *-ran* and *-ram*, while Greek shows a more advanced stage in which such thematic middle forms gave rise to full-blown thematic aorist paradigms. Crucially, this development seems to have taken place independently from the thematization of inherited active root aorists (such as those of the roots *kr̥* and *gam* in Vedic), which rather surface with full grade of the root and whose thematization seems to have begun in the 2sg. and 3sg. of the paradigms in question, under the influence of the formally ambiguous 1sg. (Cardona 1960: 22–24).

The question is how exactly the replacement of 3pl. forms proceeded. One possible solution is to start from a 3pl. athematic middle ending *\*-ento(i)*, as routinely reconstructed by members of the Freiburg school (e.g. Rix 1992; Bendahman 1993; Harðarson 1993; Tichy 2009) for, e.g. the Greek 3pl. ἐπρίαντο from *\*e-k<sup>h</sup>rih<sub>2</sub>-ento* (Rix 1992: 215) or Gk. δένονται < *\*dih<sub>1</sub>-entoj*, ἔθεντο < *\*e-d<sup>h</sup>h<sub>1</sub>-ento*, Ved. *yujanta* < *\*jug-ento* (Bendahman 1993: 14). Such a form would straightforwardly have given *-anta* in Vedic, but requires additional assumptions in Greek to explain thematic *-οντο* in, e.g. ἴχοντο, ἐπύθοντο, both supposedly thematized root aorists, vs. ἐπρίαντο, ἔθεντο, where no thematization took place.<sup>19</sup> Moreover, the later replacement of *\*-ento*, *\*-entoj* by *-ate*,

<sup>19</sup>Rix (1992: 210–11) and Harðarson (1993: 155) assume that the thematization started in the 3pl. with the replacement of active *\*-ent* by *\*-ont* and middle *\*-ento* by *\*-onto*, but there is no evidence that such a thematization ever took place in the continuants of conspicuous inherited root aorists such as ἔβην, ἔστην, ἔθη[χα], ἔφῶ (or presents like εἶμι, εἴμι, φημί for that matter), so that the only ‘evidence’ for this development in old root aorists comes precisely from the 3pl. forms of R(ø)-thematic aorists in Greek (which more often than not have no unambiguous reflexes of old active root aorists made to the same roots), making the argument circular. Moreover, athematic aorist 3pl. forms were much more likely to be replaced with the “alphathematic” or sigmatic endings *-αν* < *\*-nt* or *-σαν* < *\*-s-nt*, cf. 3pl. ἔβαν < *\*g<sup>h</sup>h<sub>2</sub>-ent* vs. ἔβησαν, the Doric 3pl. ἔθεν < *\*e-d<sup>h</sup>h<sub>1</sub>-ent* vs. ἔθεσαν, ἐμίγην vs. ἐμίγησαν, etc. Although thematic *-ονται* sometimes replaced athematic *-αται* in certain athematic presents in certain dialects, this does not seem to have happened in the aorist, certainly not systematically enough to give rise to the Greek R(ø)-thematic aorist in this manner.

-ata in Vedic and by -αται, -ατο in Greek as the generalization of the zero-grade allomorph of the suffix caused by a ‘satzphonetisch bedingte Akzentverlagerung’ (Bendahman 1993: 14) or through analogy with the endings of originally acrostatic paradigms (Harðarson 1993: 53) would certainly require further comment. It is more economical to operate with \*-onto for equations like Ved. *budhánta*: Gk. ἐπύθοντο, Ved. (?)*vidánta*: Gk. ἴδοντο, and Ved. *mṛṣanta*, *juṣanta*, etc., while Gk. ἔθεντο could come from \**e-d<sup>h</sup>h<sub>1</sub>-nto* by regular sound change (Rix 1992: 74, 248),<sup>20</sup> thus dispensing with the need for an additional 3pl. middle allomorph \*-ento(i) entirely.

The forms discussed in the previous sections suggest that the introduction of a thematic 3pl. \*-onto instead of (or, in the case of Vedic, besides) the older ending \*-ro was a shared Graeco-Aryan innovation, possibly under the influence of the full grade thematic (active or middle) present stems often found with the same roots. The proposed development of these middle aorists is sketched out in (17) for the root \**b<sup>h</sup>eud<sup>h</sup>*.

- (17) a. Late PIE: 3sg. \**b<sup>h</sup>óud<sup>h</sup>-e*, 3pl. \**b<sup>h</sup>ud<sup>h</sup>-ró* ‘awoke, became aware’ (≈ Ved. *bódhi*: *ábudhran*) →  
 b. Pre-Graeco-Aryan: 3sg. \**b<sup>h</sup>(ó?)ud<sup>h</sup>-e(to?)*, 3pl. \**b<sup>h</sup>ud<sup>h</sup>-ónto* ‘awoke, became aware’ (Ved. *budhánta*, Gk. ἐπύθοντο)  
 c. Pre-Greek: 3sg. \**b<sup>h</sup>ud<sup>h</sup>-é-to*, 3pl. \**b<sup>h</sup>ud<sup>h</sup>-ónto* (Gk. ἐπύθετο, ἐπύθοντο)

Stage c., the backformation of singular thematic forms from the renewed 3pl. middle \*-onto, seems to have occurred independently in Vedic and Greek (compare the thematic aorist paradigm of *juṣ* in Vedic and that of πύθε/ο- in Greek).

The ultimate origin of thematic -ont(o), and the thematic endings in general, cannot be treated here, but cf., e.g., Watkins 1969: 84–85, 105–18; Jasanoff 1998, 2003: 224–27

To conclude, I hope to have shown that the 3pl. ending of inherited non-alternating middle aorists may have played a more important role in

<sup>20</sup>Whether ἐπρίαντο and δένεταί can be derived in the same way from \**e-k<sup>h</sup>rih<sub>2</sub>-nto* and \**dih<sub>1</sub>-ntoi*, respectively, is less clear.

the development of (middle) thematic aorist paradigms in Graeco-Aryan than hitherto considered. This does not contradict our honorand's conclusion that "only two thematic aorists can be considered of *PIE* origin" (Cardona 1960: 123, emphasis mine), but it does shed more light on the complex later development of inherited proto-middle aorists into the attested Indo-European languages.

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