

**A Late Nuclear PIE Verbal Type Part 2: The Thematic Aorist**  
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1.1 Following Cardona’s 1960 thesis on the thematic aorist in IE, it has become standard doctrine in the field that the thematic aorist was an exceptionally rare category, with only two or possibly three such aorists reconstructible for PIE – see Jasanoff 2017 –, and that the extensive presence of the type as we have it in NPIE is largely due to secondary, branch-internal analogical extension – cf. e.g. *LIV*<sup>2</sup>: 20 *et passim*.

1.2.1 Despite this consensus, there are reasons to question Cardona’s analysis. First, as Willi 2018: 286ff. has outlined, there are significant morphological issues in the assumption that the extensive expansion of the type as we have it in Greek and Indo-Iranian is due to secondary, branch-internal processes.

1.2.2 Second, there are fundamental methodological issues in Cardona’s approach to the material. This is most visible in his treatment of the Vedic and Indo-Iranian evidence, which forms the bulk of the discussion, where he assumes that any thematic aorist that can *theoretically* be explained as secondary is secondary and should be dismissed from discussion – so, (1) any thematic aorist that competes with an aorist of any other type is considered secondary, (2) any aorist attested after the RV, or even in later books, is considered secondary, (3) any thematic aorist form that belongs to a common type – viz. optatives, etc. – is secondary, etc.

1.2.3 Problematic is also the assumption that we need three-way cognate sets to reasonably reconstruct anything for the proto-language. While this is a useful heuristic, there are many categories we reconstruct for PIE for which this doesn’t hold – viz. *-ijo*-adjectives, prepositional governing compounds, etc. In these cases, what is critical is: (1) extensive presence of the type across the languages, (2) common semantic and morphological features, and (3) common semantic and/or morphological peculiarities.

1.3 Point of paper: to reevaluate the evidence for the category in late NPIE – OCS, Ancient Greek, and Indo-Iranian –, paying close attention to the semantics of the type and its basic morphological patterning – viz. its derivational or *averbic* distribution.<sup>1</sup>

**OCS**

2.1 The thematic aorist is well attested in early OCS – though it tends to be replaced in the history of the language by the *s*-aorist. See Gorbachov 2007: 35ff. for a useful survey and lit.

2.2.1 It is nearly exclusively intransitive – apart from a handful of exceptions, cf. e.g. *dvigŭ: dvignŏ dvignŏti*.

2.2.2 Setting aside forms of the thematic imperfect that have been recategorized as aorists – cf. *jade: jadŏ, ide: idŏ*, etc. – and the original thematic aorist *pade: padŏ* – on whose possibly distinctive origin à la *apadran* RV: *pádyate* RV, YAv. *paiđiia-<sup>te</sup>*, see Villaneuva Svensson 2006 –, the type normally pairs with the so-called nasal inchoative presents, which often co-occur with residually attested *je/o*-presents in the same meaning. For the latter, see Villaneuva Svensson 2011 with lit. Cf. e.g.

<b>Thematic Aorist: Thematic Nasal Inchoative Presents</b>	<b><i>je/o</i>-Counterparts</b>
<i>sědŭ: sědŏ sesti</i> ‘sit down’	
<i>vŭzlegŭ: -lęŏ -lešti</i> ‘lie down’	
<i>pri/vŭznikŭ: -nikŏ -nikŏti</i> ‘spring up’	
<i>vŭskrŭsŭ: vŭskrŭsŏ vŭskrŭsŏti</i> ‘rise from the dead’	OCS <i>-niče-</i> ‘id.’
<i>postigŭ: -stignŏ -stignŏti</i> ‘come upon, reach’	
<i>izběgŭ: -běgŏ -běgŏti</i> ‘flee, avoid’	
<i>promŭkŭ sę: -mŭknŏ sę -mŭknŏti sę</i> ‘go out, spread’	
<i>uglibŭ: -glibŏ -glibŏti</i> ‘be stuck’	OCS <i>uglible-</i> ‘id.’

<sup>1</sup> For the basic approach, which has been standard in nominal morphology for the last fifty years, see most prominently Hollifield 1977 and Jasanoff 2004.

<i>prilǐpǔ</i> : -lǐ(p)nǒ -lǐ(p)nǒti ‘cleave, cling to’	OCS/ORuss. <i>prilǐple</i> - ‘id.’
<i>ištezǔ</i> : <i>išteznǒ išteznǒti</i> ‘disappear, fail’	
<i>i-suxu</i> : -suxnǒ -suxnǒti ‘wither away’	
<i>prisvedǔ</i> : -svednǒ -svednǒti ‘wilt’	
<i>ugasǔ</i> : -gasnǒ -gasnǒti ‘go out, be extinguished’	OCS <i>ugaše</i> - ‘id.’
<i>omrǐkǔ</i> : -mrǐknǒ -mrǐknǒti ‘grow dark’	
<i>po/izgybǔ</i> : -gybnǒ -pogybnǒti ‘die, perish’	
<i>is/utopǔ</i> : -to(p)nǒ -to(p)nǒti ‘drown’	
<i>vǔzbǔdǔ</i> (Hés.75, 6, 106, 26): -bǔ(d)nǒ -bǔ(d)nǒti ‘wake up’	
<i>usǔpǔ</i> : -sǔ(p)nǒ -sǔ(p)nǒti ‘fall asleep’	ORuss. <i>usǔple</i> - ‘id.’
<i>uzasǔ se</i> : -zasnǒ se -zasnǒti se ‘be astonished’	
<i>navykǔ</i> : <i>navyknǒ navyknǒti</i> ‘get used to’	ORuss. <i>vyče</i> - ‘id.’
<i>drǔzoxǔ</i> (Supr.): <i>drǔznǒ drǔznǒti</i> ‘dare’	
<i>oslǐpǔ</i> : -slǐpnǒ -slǐpnǒti ‘go blind’ (: <i>slǐpǔ</i> )	ORuss. <i>oslǐple</i> - ‘id.’
<i>omrǐkǔ</i> : -mrǐknǒ -mrǐknǒti ‘grow dark’	ORuss. <i>zamrǔže</i> - ‘id.’
<i>sǔ/pomrǔzǔ</i> : -mrǔznǒ -mrǔznǒti ‘freeze, congeal’ (: <i>mrazǔ</i> )	

See Diels 1932: 257ff. and Vaillant 1948: 274ff. for additional forms and attestation.

2.3.1 This nasal inchoative class, which formed the subject of my ECIEC talk last year – Rau 2023 –, is important for the discussion of the Greek and Indo-Iranian material below and it is worth remembering the salient facts of the type. See in detail Gorbachov 2007.

2.3.2 The formation is found in all the Northern Indo-European languages – Slavic, Baltic and Germanic –, where we can identify many two- and three-way cognate sets. Cf. e.g.

OCS	Baltic	Germanic
<i>sedǒ sestǐ sǐdǔ</i> ‘sit down’	OPr. <i>sīnda</i> - ‘sit down’	
<i>prilǐ(p)nǒ -lǐ(p)nǒti -lǐpu</i> ‘cleave, cling to’	Lith. <i>liṃpa lipti lipo</i> ‘cling, stick to, climb’	Go. <i>aflifnan</i> ‘remain’
<i>promǔknǒ se -mǔknǒti se -mǔkǔ se</i> ‘go out, spread’	Lith. <i>muṃka mǔkti mǔko</i> ‘break free, escape’	
<i>uglǐbnǒ -glǐbnǒti -glǐbǔ</i> ‘get stuck’		OE <i>climban</i> ‘climb,’ OHG <i>klimban</i> ‘id.’
<i>vǔzbǔ(d)nǒ -bǔ(d)nǒti -bǔdǔ</i> ‘wake up’	Lith. <i>atbuṃda atbūsti atbudo</i> ‘id.’	
<i>usǔ(p)nǒ -sǔ(p)nǒti -sǔpǔ</i> ‘fall asleep’		ON <i>sofna</i> ‘fall asleep’
ORuss. <i>svǐ(t)nuti</i> ‘grow light’	Lith. <i>šviṃta švīsti švīto</i> ‘dawn’	ON <i>hvitna</i> ‘goes pale’

2.3.3 In all three languages, the formation typically has intransitive semantics – either inchoative or anticausative –, inflects as an active thematic present – so in Gothic and residually in the other Germanic languages –, and systematically corresponds to transitive, athematically inflected nasal-infix presents in other IE languages. Cf. e.g.

OCS	Baltic	Germanic	Nasal-Infix Correspondents
<i>prilǐ(p)nǒ -lǐ(p)nǒti -lǐpu</i> ‘cleave, cling to’	Lith. <i>liṃpa lipti lipo</i> ‘cling, stick to, climb’	Go. <i>aflifnan</i> ‘remain’	Ved. <i>limpāti</i> AV+, <sup>3</sup> Gk. <i>λαπαίνω</i> ‘anoint’ Att. Ion.

<i>promūkno se -mūknoṭi se -mūkū se</i> ‘go out, spread’	Lith. <i>muñka mukti muko</i> ‘break free, escape’		Ved. <i>muñcāti</i> , Lat. <i>ēmungō, -ere</i>
<i>vūzbū(d)no -bū(d)noṭi -būdū</i> ‘wake up’	Lith. <i>atbuñda atbūsti atbūdo</i> ‘id.’		OIr. <i>ad boind</i> (: Gk. <i>πυνθάνομαι</i> Hom.+)
	Lith. <i>skiñda skīsti skīdo</i> ‘fall apart, split asunder’		Ved. <i>chināti</i> ‘split off, break off,’ Lat. <i>scindō</i> ‘id.’
		OHG <i>scrintan</i> ‘split open, burst’	Ved. <i>kṛntāti</i> ‘cut, split,’ YAv. <i>kərənta-ti</i> ‘id.’
ORuss. <i>rīnut</i> ‘stream, flow’		Go. <i>rinnan</i> ‘run,’ ON <i>renna</i> ‘id.’	Ved. <i>riñāti</i> ‘set in motion, swirl,’ Gk. <i>ὀρίνω</i> ‘stir, move excite’ Hom.+

2.3.4 Based on the function of the formation, its active thematic inflection, and its correlation with transitive athematic nasal-infix verbs in the other IE languages, it is possible to set up a descriptive derivational process for the ancestor of these branches, whereby an anti-causative is made to the transitive athematic nasal-infix present by zeroing out the stem, suffixing the accented thematic vowel, and inflecting the formation as an active.

Athematic Nasal-Infix Transitive	Thematic Nasal-Infix Intransitive
* <i>munék-ti/munk-tói</i> ‘release, set free’ → Ved. <i>muñcāti</i> , Lat. <i>ēmungō, -ere</i>	* <i>munk-é-ti</i> ‘go free, escape’ OCS <i>promūkno se -mūknoṭi se -mūkū se</i> ‘go out, spread,’ Lith. <i>muñka mukti muko</i> ‘break free’
* <i>linép-ti/linp-tói</i> ‘make adhere to’ → Ved. <i>limpāti</i> AV+, <sup>2</sup> Gk. <i>λπαίνω</i> ‘anoint’ Att. Ion.	* <i>linp-é-ti</i> ‘cling, stick to’ OCS <i>prilī(p)no -lī(p)noṭi -līpu</i> ‘id.,’ Lith. <i>liñpa lipti lipo</i> ‘cling, stick to, climb,’ Go. <i>aflifnan</i> ‘remain’

2.3.5 In terms of its deeper PIE origins, this formation is to be traced to a *h<sub>2</sub>e*-conjugated version of the athematic nasal-infix present, which ultimately served to make anti-causatives and which as all *h<sub>2</sub>e*-conjugation active present types underwent analogical thematization on the way to NPtE.<sup>2</sup>

### Ancient Greek

3.1 The thematic aorist in Ancient Greek is a highly developed, expansive category, including original thematic stems and many athematic formations remodeled on the basis of laryngeal outcomes – viz. *ἔβαλον* Hom.+; *βάλλω* Hom.+ – or stem-class reassignment – viz. *ἔδρακον* Hom.+; *δέρομαι* Hom.+; *δέδορκα* Hom.+.

3.2 The attested forms can be divided into roughly nine or ten categories depending on the type of present they pair with – see Rothstein Dowden 2022.<sup>3</sup>

Defective/Suppletive	Presential perfects of sound emission	Reduplicated Presents
<i>ἦλυθον/ἦλθον</i> Hom.+ (: <i>ἔλευσα</i> tr. Ibyc., Cret.), <i>εἰλήλουθα</i> Hom.+; <i>ἔρχομαι</i> (: Ved. <i>áruhat</i> , TB <i>lac</i> , A <i>lāc</i> , OIr. <i>luid</i> , <i>lotar</i> ) <sup>#</sup> <i>εἶδον</i> Hom.+; <i>ὄραω</i> (: Ved. <i>ávidat</i> , OYAv. <i>vidat</i> , Arm. <i>egit</i> ) <i>ἔφαγον</i> Hom.+; <i>ἔσθίω</i>	<i>ἔπαρδον</i> Ar.+; <i>πέπορδα</i> Ar. (: <i>πέρομαι</i> Ar.) (: YAv. <i>pərəðan</i> : Ved. <i>pardate</i> ) <i>ἔμακον</i> Hom.+; <i>μέμηκα</i> Hom. (: <i>μηκάομαι</i> Procop.) <i>ἔμυκον</i> Hom.+; <i>μέμυκα</i> Hom.+ (: <i>μυκάομαι</i> Hom.+)	* <i>ἔγενόμην</i> Hom.+; <i>ἐγείνατο</i> Hom.+; <i>γίγνομαι</i> Hom.+; <i>γέγονα</i> Hom.+ <sup>#</sup> <i>ἔζόμην</i> Hom., <i>εἶσα</i> Hom.+; <i>ἕζομαι</i> , <i>ἕζω</i> Hom.+ (: Ved. <i>ásadat</i> : <i>sīdati</i> , OCS <i>sēde</i> : <i>seḍo sestī</i> ) <sup>#</sup>

<sup>2</sup> See Jasanoff 2004.

<sup>3</sup> Adjoined \* indicates stems that have likely/possibly undergone secondary thematization, ^ those that are likely recategorized imperfects, # those that have oppositional transitive aorists, and <sup>c</sup> those with Caland system associations.

*ἔκλυον Hom.+ (intr. e.g. ζ 185): ἀκούω *εἶλον Hom.+ : αἰρέω *ἔπορον Hom.+ *ἔτορον Hom.+ : τορέω	ἔλακον Hom.+ : λέλιχα Hom.+ ( : λάσκω E.+)	ἔσκετο Hom. P 696 (: Ved. <sup>?</sup> <i>śaścasi</i> 'become dry' RV 8.51.7, <i>śaścant-</i> RV, OCS <i>iseče: isečeti, iseknoti</i> ) ἔσχον Hom.+ : ἴσχω Hom.+ , ἔχω Hom.+ (: Ved. <i>sáhate, prasahāná-</i> RV 10.99.2) ἔπεσον Hom.+ : πίπτω Hom.+ , πεπτηώς Hom.+ ἔτεκον Hom.+ : τίκτω Hom.+ , τέτοκα Hom.+
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Presents in -σκω	Presents in -έω	Presents in -αίνω
ἔθανον Hom.+ : θνήσκω Pi.+ , τέθνηκα Hom.+ ἔπαθον Hom.+ : πάσχω Hom.+ , πέπονθα Hom.+ ἔχανον Hom.+ : χάσκω Att. Ion.+ , κέχηνα Hom.+ *ἔμιολον Hom.+ (ἔβλω Hsch.): βλώσκω Hom.+ , μέμβλωκα Hom.+ *ἔθορον Hom.+ : θρώσκω Hom.+ , θόρνυμαι Hdt. S.	ἔταφον Hom.+ : θαμβέω Hom.+ ( : ἐθάμβησε Hom.+), τέθηπα Hom.+ ( : τὸ θάμβος Hom.+) <sup>C</sup> ἔστυγον Hom.+ , ἔστυξα λ502 caus. tr.: στυγέω Hom.+ ( : τὸ στύγος A.+ ) ( : <i>tujete</i> intr. RV 1.61.4, <i>tujánt-</i> apparently intr. RV 4x: <i>tuñjánti</i> RV, <i>tuñjáte</i> RV, <i>tuñjāná-</i> tr. RV, <i>túñjāmana-</i> intr. RV 3.1.16. See note 6 below) <sup>#C</sup>	<sup>^</sup> ἤλθόμεν Hom. : ἀλθαίνω, -ομαι Hp.+ ( : $\sqrt{h_2el-}$ or $\sqrt{h_2eld^h-}$ , see LIV <sup>2</sup> <i>s.rr.</i> ) <sup>C</sup> ἤλιτον Hom.+ : ἀλιταίνω Hes.+

Presents -ῖο/e-	Full-grade thematic presents	Presents in -άνω/-οῦ
ἠγγρόμην, ἠγγεῖρα Hom.+ : ἐγείρω, - ομαι Hom.+ (intr. act. Aesop), ἐγγήγορα Hom.+ <sup>#</sup> ἠγγρόμην, ἠγγεῖρα Hom.+ : ἀγείρω, - ομαι Hom.+ , ἀγγέγατο Hom. ἑδάομην Hom. (Y 316, Φ 375): δαίω, -ομαι Hom.+ , δέδηα intr. Hom. <sup>#?</sup> (: Ved. <i>dunóti</i> 'lights up [tr.]' AV) ἑλιτόμην Hom. : λίσσομαι Hom.+ ( : Lit. <i>lieči, liěsti</i> 'touch') ἑλαβον Hom.+ , ἑλελαβόμεν 'hold firm' δ 388: λάζομαι Hom., Dial., εἶληφα Att./λελάβηκα Ion., Dial. ( : λαμβάνω Att.Ion.) (: <sup>?</sup> OÉ <i>laeccean</i> 'grab')	ἔτραφον intr. Hom., ἔθρεψα Hom.+ : τρέφω, -ομαι, τέτροφα intr. Hom.+ <sup>#C</sup>  ἐπιθόμεν Hom.+ , ἐπέπιθον tr. Hom.+ , ἔπεισα tr. Hom.+ : πείθω, - ομαι Hom.+ , πέποιθα Hom.+ <sup>#</sup> ἑταρπόμεν Hom., ἑτεταρπόμεν Hom., ἔτρεψα, -άμην Hom.+ : τέρπω, -ομαι Hom.+ ( : Ved. intr. <i>átṛpam</i> AV: intr. <i>trpṛāti, trpṛóti</i> RV, pf. <i>tāṛpṛ</i> intr. AV) <sup>#C</sup>  *ἔδρακον Hom.+ : δέρκομαι Hom.+ , δέδορκα tr. and intr. Hom.+ ( : Ved. <i>ádarśam, dadárśa</i> ) ἄϊον Hom. : αἰέω Hes. <sup>+</sup> Eur. <sup>+</sup> Hesch. ἐπυθόμεν Hom.+ , ἐπεπυθόμεν Hom. : πυνθάνομαι Hom.+ , πεύθομαι Hom.+ ( : πεύθω tr. Cret.), πέπυσμαι Hom.+ ( : OCS <i>vǐzbŭdŭ:</i> <i>vǐzbŭnŏti; budhánta</i> RV 3x: <i>bŭdhyate</i> RV. See below.)	ἔαδον Hom.+ : ἀνδάνω Hom.+ ( : ἠδομαι Att. Ion. Dial., ἠσάμην Hom.+), ἑαδα Hom.+ <sup>C</sup>  ἔθαλον Hom.+ : θάλλω Hes.+ , τέθηλα Hom.+ ( : Alb. 1sg. <i>dal, del</i> 'go out' < <i>*dalnō, dalnet</i> and MW <i>deillyaw</i> * << <i>*daln-</i> , see Schumacher 2004: 257ff. and Schumacher Matzinger 2013: 968f.)  ἐπυθόμεν Hom.+ , ἐπεπυθόμεν Hom. : πυνθάνομαι Hom.+ , πεύθομαι Hom.+ ( : πεύθω tr. Cret.), πέπυσμαι Hom.+ ( : OCS <i>vǐzbŭde:</i> <i>vǐzbŭnŏti; budhánta</i> RV 3x: <i>bŭdhyate</i> RV. See below.) ἠισθόμεν Att.Ion.+ : αἰσθάνομαι Att.Ion.+ , ἠίσθημαι Att.Ion.+ ἑμαθον Hom.+ : μαθάνω Pi.+ , μεμάθηκα Att. Ion. ἑδαρθον Hom. : δαρθάνω Hierocl. ἔθιγον Archil.+ : θιγγάνω Att. Ion.+
	ἔσχον Hom.+ : ἴσχω, ἔχω Hom.+  ἔκευθον, -ομην Hom.+ , ἔκευσα Hom., ἐκέκυθον Hom. : κεύθω, -	ἔλαθον, -ομην Hom.+ , ἐπέλησα caus. tr. Hom., λέλαθον, -ομην caus. tr. Hom. : λανθάνω, -ομαι

	<p>ομαι Hom.+ (intr. act. ‘be concealed, lie hidden’ S.), κέκευθα ‘hold concealed’ Hom., ‘lie hidden’ Att.          ἔσπον Hom.+; ἔπω Hom.+</p> <p>ἔπλεν, -ομην Hom.+; πέλω, -ομαι Hom.+, περιτέλλομαι Hom.+ (: Arm. <i>elew</i>)          ἔφυγον Hom.+; φεύγω Hom.+, φυγγάνω Att.Ion., πέφευγε Hom.+ (: YAv. <sup>2+</sup><i>bujat</i> ‘frees’ Yt.4.3: <i>bunjaiṇti</i> (or <i>bunjaiiati</i>) Yt.14.46)          ἔστιχον Hom.+, ἔστειξα Hom.: στείχω Hom.+ (: OCS <i>postīže: postignoti</i> [Ved. <i>prá stīṇnoti</i> MS])          ἔτραπον Hom.+ (intr. ι 469), ἔτρεψα Hom.: τρέπω, -ομαι Hom.+, τέτροφα Att.          ἔλιπον (: poss. intr. Π 507 λίπον Zen. <i>h C R</i>: λίπεν Ar. Ω*), -ομην Hom.+; λείπω, -ομαι, λέλοιπα Hom.+ (: Arm. <i>elik</i>, <i>lk’anem</i>)</p> <p>ἐπτόμην Hom.+ (: ἔπτην, ἐπτάμην Hom.+); πέτομαι Hom.+, πέταμαι ἐσπόμεν Hom.+; ἐπομαι Hom.+</p> <p>ἔνισπον Hom.+; ἐννέπω Hom.+ See García Ramón 2012 (: Lat. <i>inquit</i> Pl.+; <i>insece</i> Enn.+)</p> <p>ἔπαρδον Ar.+; πέπορδα Ar., πέρδομαι Ar. (: YAv. <i>pəṛədān</i>: Ved. <i>pardate</i>)          ἦρυγον Hom.+; ἐρεύγομαι Hom.+, ἐρυγγάνω E.+</p> <p>ἦρικον Hom. (intr. P 295), ἦρειξα Hom.+; ἐρείκω, -ομαι Hom.+ (: <i>riśantām</i> RV 10.169.1, <i>riśantīh</i> 6.27.7, <i>riśāmahe</i> (tr.) 1.189.8. See note 6 below.)<sup>#</sup>          ἦριπον intr. Hom.+, ἦρειψα Hom.+; ἐρείπω, -ομαι Hom.+, κατερήριπε intr. Hom. (: ON <i>rifna</i> ‘become torn asunder,’ ORuss. <i>répnut</i> ‘burst, crack open’)<sup>#</sup></p>	<p>(: λήθω, -ομαι Hom.+), λέληθα Hom.+<sup>#C</sup></p> <p>ὄλισθε Hom.+; ὀλισθάνω Att. (: Ved. <i>sridhat</i> RV: <i>srédhati</i> RV)          ἦμαρτον/ἄμβροτον Hom.+; ἄμαρτάνω Hom.+, ἀμάρτηκα Hdt.+          ἔτυχον Hom.+; τυγχάνω Hom.+, τετύχηκα Hom.+ (: ἔτευξα Hom.+,          ἐτέτυκον, -ομην Hom.: τεύχω Hom.+, τιτύσκομαι Hom.+)<sup>#</sup></p> <p>ὄφλον Att. Ion.+; ὀφέλλω Hom.Dial., ὀφείλω Att.Ion., ὀφλισκάνω Att.</p> <p>ἔχαδον Hom.+; χανδάνω Hom.+,          κέχα/ονδα Hom. (: Lat. <i>prehendō</i>, -<i>ere</i>, OIr. <i>rogeinn</i> ‘occupies,’ Go. <i>duginnan</i> ‘begin’)          ἔλαχον Hom.+ (intr. act. Att.), ἐλέλαχον caus. tr. Hom.: λαγγάνω Hom.+ (intr. act. Hom.), λέλογγα Hom.<sup>#</sup>          ἔλαβον Hom.+; λαμβάνω Att.Ion., εἴληφα Att./λελάβηκα Ion., Dial. (: λάζομαι Hom., Dial.)<sup>#</sup>          ἠήλφον Hom.+; ἀλφάνω Att. (: ἄλφω Hsch., Ved. <i>ārhati</i>, YAv. <i>arəja</i>-<sup>II</sup>)</p> <p><sup>2</sup>*ἔκαμον Hom.+; ἐκέκαμον Hom.: κάμνω Hom.+; κέκμηκα Hom.+ (: ἀκάμας, -αντος Hom.+): (: <i>śamñīze</i> ‘labor’ YV, <i>śamāyāte</i> ‘id.’ RV, <i>śāmyati</i> YV, <i>ásamūt</i> ‘ist ruhig geworden’ AVP, <i>ásamanta</i> ‘labored’ YV)          *ἔβαλον Hom.+; βάλλω Hom.+          *ἔταμον Hom.+; τέ/άμνω Hom.+</p> <p>[ὁ θρόμβος ‘lump, clot’ Att. Ion.: τρέφω, -ομαι, ἔτραφον Hom. (intr.), ἔτρεψα, τέτροφα Hom.+<sup>C</sup> (: ταρφύς Hom.+; τάρφα Hom.+; τάρφος Hom.+)          (: Lith. <i>driṃba dribti</i> ‘fall in flakes, drop’)]<sup>4</sup></p>
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<sup>4</sup> This and the following noun obviously depend on an underlying nasal-infix present, either an athematic transitive or a thematic intransitive of the sort under discussion. I assign them to the latter type (1) because of the semantic profile of the roots and their derivational *averbo*, which – at least in the case of ὁ θρόμβος and τὸ θάμβος – is exactly parallel to the other verbs that can be assigned to this class, and (2) because the retention of the nasal-infix formant in a nominal derivative is more easily explained as the result of a synchronically isolated thematic nasal-infix intransitive – replaced prehistorically in Greek by the -άνω type below – than an otherwise reasonably well-paralleled athematic nasal-infix transitive. Cf. YAv. nom. sg. *θραψ̥o* ‘satisfaction (vel sim.)’ Yt.5.26, YAv. *θραψ̥ōdra* ‘rich in; satisfied’ and synchronically isolated Ved. *ἡμπάτι* ‘take delight in, enjoy (+gen.)’ RV cited below.

	ἔδρα/οπον tr. Pi. Alc., ἔδρεψα Pi. Hdt.+ : δρέπω, -ομαι Hom.+ ἔπα/ορθον tr. Hom.+ , ἔπερσα Hom.+ : πέρθω, -ομαι Hom.+ <ka-te-wo-ro-ko-ne> tr. ICS 217, A.1 (Idalion, ca. 450), ἤερξα Hom.+ : ἐέργω, -ομαι Hom.+	[τὸ θάμβος Hom.+ : θαμβέω (: ἐθάμβησε Hom.+)*, ἔταφον Hom.+ , τέθηπα Hom.+ (: θώψ, θωπός Att. Ion.) <sup>C</sup> (: deverbal? PGmc. <i>dumba-</i> ). Non- nasal root, <i>pace</i> Hackstein 2002: 237 with lit.]
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3.3.1 From this survey it is possible to note several significant distributional facts.

3.3.2.1 Across all morphological subtypes, intransitive thematic aorists radically outnumber transitive forms – especially when likely secondary thematizations are excluded – viz. ἔβαλον Hom.+ : βάλλω Hom.+\*, ἔταμον Hom.+ : τέ/άμνω Hom.+\*, etc. –, and are generally made to roots that denote states, translational motion, or activities.

3.3.2.2 The transitive thematic aorists that are found are nearly exclusively to state-oriented roots that denote cognitive/perceptual – cf. e.g. ἐπυθόμην Hom.+ : πυνθάνομαι Hom.+ , πεύθομαι Hom.+ , πέπυσμαι Hom.+<sup>#</sup> –, psychological – cf. e.g. ἔταφον Hom.+ : θαμβέω (: ἐθάμβησε Hom.+), τέθηπα Hom.+ (: τὸ θάμβος) –, or possessional states – cf. e.g. ἔχαδον Hom.+ : χανδάνω Hom.+ , κέχα/ονδα Hom. .

3.3.2.3 In some instances, the intransitive thematic-aorist pattern seems also to have been extended to transitive thematic aorist actives – viz. ἔκλυον Hom.+ (intr., e.g., ζ185) : ἀκούω, ἔλιπον (: intr. *l.d.* Π 507 λίπον Zen. *h C R* : λίπεν Ar. Ω\*), -ομην Hom.+ : λείπω, -ομην, λέλοιπα Hom.+ .

3.3.3.1 The intransitive thematic aorist regularly contrasts with a specifically transitive, often causative aorist with different stem formation – *s*-aorist or reduplicated aorist – and in many cases has active (or non-oppositional middle) inflection.

Active Thematic Aorist	Middle Thematic Aorist
ἔτραπον Hom.+ (intr. ι 469), ἔτρεψα, -αμην Hom. : τρέπω, -ομαι Hom.+ , τέτροφα Att.	ἔζόμην Hom. , εἶσα Hom.+ : ἴζομαι, ἴζω Hom.+ (: Ved. <i>ásadat: sídati</i> , OCS <i>sěde: sědo sestī</i> ) <sup>#</sup>
ἔτραφον intr. Hom. , ἔθρεψα, -αμην: τρέφω, -ομαι, τέτροφα intr. Hom.+ <sup>#C</sup>	*ἐγενόμην Hom.+ , ἐγείνατο Hom.+ : γίγνομαι Hom.+ , γέγονα Hom.+ <sup>#</sup>
ἦρικον Hom. (intr. P 295), ἦρειξα Hom.+ : ἐρείκω, - ομαι Hom.+ (: <i>riśantām</i> RV 10.169.1, <i>riśántīh</i> 6.27.7, <i>riśāmahe</i> (tr.) 1.189.8) <sup>#</sup>	ἦγρόμην, ἦγειρα Hom.+ : ἐγείρω, -ομαι Hom.+ (intr. act. Aesop), ἐγρήγορα Hom.+ <sup>#</sup>
ἦριπον intr. Hom.+ , ἦρειψα Hom.+ : ἐρείπω, -ομαι Hom.+ , κατερήριπε Hom. (: ON <i>rifna</i> ‘become torn asunder,’ ORuss. <i>rěpnut</i> ‘burst, crack open’) <sup>#</sup>	ἦγρόμην, ἦγειρα Hom.+ : ἀγείρω, -ομαι Hom.+ , ἀγηγέρατο Hom. .
ἔτυχον Hom.+ : τυγχάνω Hom.+ , τετύχηκα Hom.+ (: ἔτευξα Hom.+ , ἐτέτυκον, -ομην Hom. : τεύχω Hom.+ , τιτύσκομαι Hom.+) <sup>#</sup>	ἐταρπόμην Hom. , ἐτεταρπόμην Hom. , ἔτρεψα, -άμην Hom.+ : τρέπω, -ομαι Hom.+ (: Ved. intr. <i>átṛpam</i> AV: intr. <i>ṭṛpṛāti</i> , <i>ṭṛpṛóti</i> RV, pf. <i>tāṭṛpur</i> intr. AV) <sup>#C</sup>
ἔστυγον Hom.+ , ἔστυξα λ 502 caus. tr. : στυγέω Hom.+ (: τὸ στόγος A.) (: <i>tujete</i> intr. RV 1.61.4, <i>tujánt-</i> apparently intr. RV 4x: <i>tuñjánti</i> RV, <i>tuñjáte</i> RV, <i>tuñjāná-</i> tr. RV, <i>túñjāmana-</i> intr. RV 3.1.16.) <sup>#C</sup>	ἔλαθον, -ομην Hom.+ , ἐπέλησα caus. tr. Hom. , λέλαθον, -ομην caus. tr. Hom. : λανθάνω, -ομαι (: λήθω, -ομαι Hom.+), λέληθα Hom.+ <sup>#C</sup>
ἔλαχον Hom.+ (intr. act. Att.), ἐλέλαχον caus. tr. Hom. : λαγχάνω Hom.+ (intr. act. Hom.), λέλογχα Hom.+ <sup>#</sup>	ἔκευθον, -ομην Hom.+ , ἔκευσα Hom. , ἐκέκυθον Hom. : κεύθω, -ομαι Hom.+ (intr. act. ‘be concealed, lie

	hidden' S.), κέκευθα 'hold concealed' Hom., 'lie hidden' Att.
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3.3.3.2 The transitive: intransitive stem opposition we see here is exactly parallel to what we find with zero-grade root aorist middles and the passive/intransitive aorist, a formation that ultimately displaces both categories.

Thematic Aorist	Root Aorist Middle	Passive/Intransitive Aorist
ἔτραπον Hom.+ (intr. ι 469), ἔτρεψα Hom.: τρέπω, -ομαι Hom.+, τέτροφα Att.	ἔμικτο Hom., ἔμειξα, -άμην Hom.+: μείγνυμι, -μαι Callin. Sa.+, μίσγω, - ομαι Hom.+	ἐτράπην A.Ar., ἐτράφην Hom.+: ἔτραπον Hom.+ (intr. ι 469), ἔτρεψα Hom.: τρέπω, -ομαι Hom.+, τέτροφα Att.
ἦρικον Hom. (intr. P 295), ἦρειξα Hom.+ : ἐρείκω, -ομαι Hom.+ (: <i>risántām</i> RV 10.169.1, <i>risántīh</i> 6.27.7, <i>risámahe</i> (tr.) 1.189.8) <sup>#</sup>	ἔπηκτο Hom., ἔπηξα, -άμην Hom.+: πήγνυμι, -μαι Hom.+	ἐτράφην Hom.+ : ἔτραφον intr. Hom., ἔθρεψα: τρέφω, -ομαι, τέτροφα intr. Hom. <sup>+#C</sup>
ἦριπον intr. Hom.+ , ἦρειψα Hom.+ : ἐρείπω, -ομαι Hom.+ , κατερήριπε Hom. (: ON <i>rifna</i> 'become torn asunder,' ORuss. <i>répnut</i> 'burst, crack open') <sup>#</sup>	ἐπλήμην Hom.+ , ἐπλησα, -άμην Hom.+ : πίμπλημι Hes.+ , πλήθω Hom.+	ἐτάρπην Hom.+ : ἐταρπόμεν Hom., ἐτεταρπόμεν Hom., ἔτρεψα, -άμην Hom.+ : τέρπω, -ομαι Hom.+ (: Ved. intr. <i>átṛpam</i> AV: intr. <i>tṛpṛáti</i> , <i>tṛpṛóti</i> RV, pf. <i>tāṛpur</i> intr. AV) <sup>#C</sup>
ἠγρόμην, ἠγειρα Hom.+ : ἐγείρω, - ομαι Hom.+ (intr. act. Aesop), ἐγρήγορα Hom. <sup>+#</sup>	ἔπαλτο Hom.+ , ἔπηλα, -άμην Hom.+ : πάλλω, -ομαι Hom. + (intr. act. E. Ar. S.)	ἐμίγην Hom.+ : ἔμικτο Hom., ἔμειξα, -άμην Hom.+ : μείγνυμι, - μαι Callin. Sa.+, μίσγω, -ομαι Hom.+
ἠγρόμην, ἠγειρα Hom.+ : ἀγείρω, - ομαι Hom.+ , ἀγηγέρατο Hom.	ἔσσυτο Hom., ἔσσευα Hom.+ : σέυω, -ομαι Hom.+	ἐπάγην Hom.+ : ἔπηκτο Hom., ἔπηξα, -άμην Hom.+ : πήγνυμι, -μαι Hom.+
ἐπιθόμην Hom.+ , ἐπέπιθον tr. Hom.+ , ἔπεισα tr. Hom.+ : πείθω, - ομαι Hom.+ , πέποιθα Hom. <sup>+#</sup>	ἔχυτο Hom., ἔχεα Hom., ἔχευα Hom.+ : χέω, -ομαι Hom.+	ἐπλήσθην Hom.+ : ἐπλητο Hom.+ , ἔπλησα, -άμην Hom.+ : πίμπλημι Hes.+ , πλήθω Hom.+
ἐταρπόμεν Hom., ἐτεταρπόμεν Hom., ἔτρεψα, -άμην Hom.+ : τέρπω, -ομαι Hom.+ (: Ved. intr. <i>átṛpam</i> AV: intr. <i>tṛpṛáti</i> , <i>tṛpṛóti</i> RV, pf. <i>tāṛpur</i> intr. AV) <sup>#C</sup> <i>etc.</i>	ἔλυτο Hom., ἔλυσα, -άμην Hom.+ ; λύω, -ομαι Hom.+ <i>etc.</i>	ἐπάλην Str. : ἔπαλτο Hom.+ , ἔπηλα, -άμην Hom.+ : πάλλω, -ομαι Hom. + (intr. act. E. Ar. S.) <i>etc.</i>

3.3.4.1 While Ancient Greek has a much wider distribution for the thematic aorist than OCS, it fundamentally agrees with this branch in using the thematic aorist as an intransitive and in pairing it with both *je/o*-presents and nasal-infix thematic presents.

3.3.4.2 As I argued last year – Rau 2023 –, based on their thematic inflection, general semantic orientation – frequently intransitive or, if transitive, to roots denoting cognitive/perceptual and possessional states –, and close relationship to the Caland system, this class should be equated with the Northern IE nasal-infix thematic presents. Of the 26 such verbs that can be assumed for Greek and that have attested aorists, 18 show the thematic aorist.<sup>5</sup>

<sup>5</sup> Non-thematic aorist cases use the root aorist – cf. e.g. φθίνω/φθίνω Hom.+ : φθινύθω Hom.+ (tr., intr.), ἔφθιτο Hom.+ , ἔφθιον Hom.+ , ἔφθ(ε)ισα Hom.+ (: Ved. *kṣināti*, *kṣinóti* AV, YAv. *jinā-*) – or the *s*-aorist – cf. e.g. λάμπω Hom.+ : ἔλαμψα Hom.+ (: λαμπρός Hom.+ ) (:

## Indo-Iranian

4.1 In Indic and Iranian the thematic aorist is a well attested category, especially in Indic. The thematic aorists attested in Vedic and in Avestan, where the type is rarer, as is the aorist in general, can be arranged into roughly six morphological subtypes:<sup>6</sup>

Athematic Presents <sup>7</sup>	Reduplicated Presents <sup>8</sup>	<i>i</i> -Presents <sup>9</sup>
<p><i>átakṣat</i> RV+: <i>tāṣṭi, tákṣati</i> (: <i>atakṣiṣur</i> RV) (: <i>takṣnoti</i> Br.) OYAv. <i>tāṣat</i>: OAV. <i>tāšt</i>, YAv. <i>auui... tāṣti</i></p> <p><i>śíṣat, áśiṣāmahi</i> RV+: <i>śáṣti</i> RV+ OAV. impv. <i>siṣā</i>: OAV. <i>sāstī</i> (: Alb. <i>thashë</i>; pr. 3<sup>rd</sup> sg. <i>thotë</i>. See Matzinger Schumacher 2013: 1001 with lit.)</p> <p>Already PIIr. but secondary, see in general Kummel 1998.</p>	<p><i>ásadat</i> RV+ (: athm. subj. <i>sadathas</i> RV 5.67.2, <i>satsi</i> RV, sec. subj. <i>satsat</i> RV; <i>ásādi, sādi</i> RV+): <i>sīdati</i> RV+ (: <i>sādáyati</i>) (: Hom. ἔζετο: ἴζω/ομαι, OCS <i>sēde: sēdū</i>)</p> <p><i>ásarat</i> intr. RV+: <i>sísarsī</i> tr. RV 3.32.5, <i>sísrate</i> intr. RV+ (: <i>sarayanta</i> intr. RV 4.17.2. See Jamison 1983: 64)</p> <p>(: synchronically distinct <i>sísarti</i> ‘extend,’ <i>sísrate</i> RV+, <i>prá asāri</i> ŚB, caus. <i>sāráyati</i> RV. See Narten 1969)<sup>#</sup></p> <p>OAV. <i>frā</i> intr. Y.46.10, YAv. <i>frā</i> intr. (: <i>pārṣi</i> tr. RV, subj. <i>parṣat(i)</i> tr. RV, subj. <i>pāriṣat</i> tr. RV): <i>píparti</i> tr. RV+ (: YAv. <i>-pāraia-<sup>ti</sup></i>, <i>pāráyati</i> RV, <i>pipárat</i> RV)</p>	<p><i>áh<sub>(u)</sub>vat</i> RV+ (: <i>ahūṣata</i>, see Narten 1964: 288f.): <i>hváyati</i> RV, <i>hávate</i> RV, <i>huvé, hūmáhe</i> RV,<sup>10</sup> OYAv. <i>zbaia-<sup>ti/te</sup></i>, YAv. <i>zauua-<sup>ti/te</sup></i></p> <p><i>ávyata</i> RV 1.66.4+: <i>vyayati</i> RV+ (: OAV <i>viiam</i> Y.48.7, formal analysis unclear, see Mayrhofer 1996 s.r. <i>vyā-</i> and Humbach 1991: 201f.)</p> <p><i>ásvat</i> ŚB: <i>śváyati</i> RV+ (: OAV. inf. <i>sūidiāi</i>; YAv. <i>sāuuaiia-<sup>ti</sup></i>)<sup>#C</sup></p> <p>OAV.+ <i>xšəntā, xšaētā, xšəntam</i>, YAv. <i>xšaēša</i>: OYAv. <i>xšaiia-<sup>ti/te</sup></i>, Ved. <i>kṣáyati</i> RV+<sup>11</sup></p>
Presents <i>-jo/e-</i>	Full-Grade Thematic Presents <sup>12</sup>	Nasal-Infix Presents
<p><i>puṣema</i>, etc. RV+: <i>púṣyati/te</i> RV+ (: <i>poṣáyati</i> RV+)<sup>#</sup></p> <p><i>má dasat, dásamāna-</i> RV+, <i>jásamāna-</i> RV 7.68.8 (: <i>dāsī</i> RV, metrically motivated Narten 1964:</p>	<p><i>aśucat</i> RV+, <i>śúcánt-</i> RV+, <i>śúcāmāna-</i> RV (: <i>aśoci</i> 2x RV, <i>sociḥ</i> VS+, see Narten 1964: 256f.): <i>śócati/te</i>, YAv. <i>saociṇt-</i> (: <i>śúcáyant-</i> intr. RV; <i>śócáyati</i> RV+, OAV. <i>saocaiia-<sup>ti</sup></i>, <i>śúśucat</i> AV)<sup>#C</sup></p>	<p><i>átṛpat</i> AVŚ 3.13.6 (: adv. nt. <i>ṭṛpát</i> 3x RV): <i>ṭṛmpáti</i> (+ gen.) RV (12x), <i>ṭṛpnóti</i> ‘id.’ RV (5x), <i>ṭṛpyati</i> AV+ (: <i>tarpáyati</i> RV+, <i>aīṭṛpat</i> AV+) (: ἔταρπόμεν Hom., ἔτρεψα: τέρπω, -ομαι Hom.)<sup>#C</sup></p>

Hitt. *lap-<sup>zi</sup>*, pret. *lāp-<sup>za</sup>* [cf. Lith. *lopē*, etc.]<sup>C</sup>. Note that this distribution has an exact parallel in Classical Armenian, where the thematic aorist is regular and best attested beside presents in *-anem*.

<sup>6</sup> Superscript # is used to indicate verbs that have active intransitive perfects; <sup>C</sup> those that have Caland system morphology in IIr. I exclude from discussion the so-called “aorist presents” – viz. *tudāti*-presents –, although it is clear that at least some in fact continue recategorized thematic aorists – cf. e.g., to *ṽtoj-*, *tujete* intr. RV 1.61.4, *tujánt-* apparently intr. RV 4x: *tuñjánti* RV, *tuñjáte* RV, *tuñjáná-* tr. RV, *tuñjāmana-* intr. RV 3.1.16<sup>C</sup> (: ἔστουγον Hom.+; ἔστουζα λ502 caus. tr.: στουζέω Hom.)<sup>C</sup> or, to *ṽres-*, *riśantām* RV 10.169.1, *riśántiḥ* 6.27.7, *riśámāhe* (tr.) 1.189.8 (: ἤρικον Hom. [intr. P295], ἤρειζα Hom.+; ἐρείκω, -ομαι Hom.+). On the type in IIr., see Hill 2007.

<sup>7</sup> Perhaps also belong here *uśāmāna-* RV 4.22.2 (: *uśāná-* 4.16.14): *váste*, if it isn’t simply a nonce form– see Lowe 2016: 255f. with lit. –, and likely innovative *arudat* AV: *roditi* RV vs. OAV. *s-*aorist *raostā* YAv. *uruθən*.

<sup>8</sup> Perhaps also to be placed here is *anijam, anijan* AV (: *nirñijáná-* RV 5.69.5, *nikṣi* AV, *prá anaikṣīt* AV): impv. *ninikta* RV 10.132.6 (: *nenikté* RV, YAv. *naēniža-<sup>ti</sup>* Yt. 8.43), although *nirñijáná-* RV 5.69.5, *nikṣi* AV and *prá anaikṣīt* AV suggest an original root aorist and a low-level Vedic remodeling. See Narten 1964: 161f.

<sup>9</sup> For the type, see Jasanoff 2003.

<sup>10</sup> This athematic present could theoretically represent (1) an original root present formation – so *LIV*<sup>2</sup> – or (2) a revalued aorist injunctive, either thematic aorist – so Gotō 1987: 349 – or athematic root aorist generated according to the pattern full-grade middle thematic present: zero-grade middle root aorist – cf. *mudīmahi* RV: *módate* RV, *nasīmahi* RV: *násate* RV, etc.

<sup>11</sup> For discussion of reconstruction options, see *LIV*<sup>2</sup>: 297ff. with lit. I follow the *i*-stem analysis of Jasanoff 2003: 104ff.

<sup>12</sup> Also belong here the low-level Vedic remodelings in *parýávytas* tr. AV, *sám avṛtas* tr. AV (: *ávart* RV, *avṛtran* RV): *vártate/te* RV+ and *kradas* RV (: *ákran, kran* RV+): *krándati* RV+.



<p>134): <i>dásyati</i> RV+, <i>ní jasyata</i> RV 1.191.7 (: <i>dasayate</i> RV 5.45.3 ‘become exhausted’ RV; <i>dāsayati</i> AV, <i>jaśayati</i> Br, <i>ajījasat</i> YV)<sup>#C</sup> (: <i>ugasū</i>: -<i>gasṇo</i> -<i>gasṇoti</i>, <i>ugaše</i>- ‘go out, be extinguished’)</p> <p><i>ágrdhat</i> RV 10.34.4+: <i>gr̥dhyati</i> RV+<sup>#</sup></p> <p><i>abhí druhan</i> RV, <i>abhí druhas</i> AV: <i>drúhyati</i> YV+, OYAv. <i>druj/ziia</i>-<sup>ti</sup></p> <p>(<i>má</i>) <i>riṣam</i>, <i>riṣat</i> RV (: intr. root aor. subj. <i>reṣat</i> RV 7.20.6, tr. <i>rīdhvam</i> TA): <i>riśyati</i> RV+, YAv. <i>irišūia</i>-<sup>ti/te</sup> (: <i>reśáyati</i> RV+, <i>rīriṣat</i> RV+, YAv. <i>raēšaiia</i>-<sup>ti</sup>)</p> <p><i>má á śriṣat</i> intr. RV 1.162.11, YAv. N.99 <i>ḥam.srišaiti</i> tr., <i>ḥam.srišāiti</i> tr.: <i>āślīsyati</i> MS+ (: <i>śleśáyati</i> YV)<sup>#</sup></p> <p><i>má radham</i> RV 1.50.13, <i>má radhāma dviṣatē</i> 10.128.5 (: tr. <i>randhīṣ</i> 3x RV, tr. <i>randhi</i> RV 4.22.9., see Narten 1964: 218): <i>rádhyati</i> AV+ (: <i>randháyati</i> RV+, <i>má rīradhas</i> RV)<sup>#C</sup></p> <p><i>medātām</i> RV 10.93.11 (prob. verbal form, so Jamison Brereton 2014 <i>ad loc.</i>, revising Jamison 1983: 142<sup>78</sup> with lit.): <i>médyati</i> RV (: <i>medáyati</i> RV)<sup>C</sup></p> <p><i>nṛtāmāna</i>- RV 5.33.6 (: <i>anartiṣur</i> RV 10.94.4): <i>nṛtyati</i> RV+ (: <i>nartáyati</i> RV)<sup>13</sup></p> <p>(<i>má</i>) <i>tṛṣat</i> AV+ (: <i>tṛṣāná</i>- RV): <i>tṛṣyati</i> (: <i>vitarsayati</i> Kāth., <i>aīṭṛṣāma</i> RV+)<sup>C</sup></p> <p>(<i>má</i>) <i>krudhat</i> AV+: <i>krúdhyati</i> AV+ (: OAv. tr. root aor. subj. <i>xraodaṭ</i> Y.46.11, <i>xraodaitī</i> Y.51.13) (: <i>krodháyati</i> AV, <i>ácukrudhat</i> RV+)<sup>#</sup></p> <p>(<i>má</i>) <i>kṣudhat</i> AV: <i>kṣúdhyant</i>- RV+</p>	<p><i>áruhat</i> RV 10.67.10, <i>ví... ruhema</i> 3.8.11, <i>ruhánt</i>- 1.179.4 (: <i>árukṣat</i> RV+, see Narten 1964: 228f.): <i>ródhati</i>, <i>róhati/te</i> RV, YAv. <i>raoda</i>-<sup>ti/te</sup> (: <i>rudhyase</i> RV 8.43.9; <i>roháyati</i> RV+)<sup>#</sup> See <i>LIV</i><sup>2</sup>: 248f. with lit. for root discussion. (: TB <i>lac</i>, A <i>lác</i>; OIr. <i>luid</i>, <i>lotar</i>, Gk. ἤλυθον, ἦλθον Hom.+)</p> <p><i>má...sridhat</i> RV 7.34.17 (: <i>ásridhāna</i>- RV 7.34.17): <i>srédhati</i> RV (: ὄλισθε: ὀλισθάνω Hom.+)</p> <p>(<i>áti</i>) <i>srasema</i> RV 6.11.6, VS, TA+ (: <i>asraṁsiṣata</i> ŚB, innovative Narten 1964: 282): <i>srāṁsate</i> Kāth., MS+ (: <i>sraṁsayati</i> AV+, OAv. <i>rāṅhāiia</i>-<sup>ti</sup>, <i>asirsasat</i> AV+ [<i>srasniṣva</i>, <i>vi-srasyamāna</i>- BaudhŚS])<sup>#</sup></p> <p><i>má... bhraśat</i> RV 10.173.1: <i>bhrāmśate</i> YV+ (: <i>bhraśyate</i> TĀ+)</p> <p>aor. subj. <i>ná ... mṛdhāti</i> RV 6.23.9, <i>mā mṛdhas</i> ŚGS (: <i>mardhīs</i> RV 4.20.10, <i>mardhiṣtam</i> 7.7.4, etc., Narten 1964: 198f. innovative): <i>márdhati</i>, <i>ámardhant</i>- RV, OAv. <i>maradaitī</i> Y.51.13, pres. ind. (or possibly aor. subj.). See Gotō 1987: 242 for useful discussion.</p> <p><i>má... asṛpat</i> AV+: <i>sárpati</i> RV+ (: <i>sṛpta</i> Br., see Narten 1964: 274f.)<sup>#</sup></p> <p><i>amrucat</i> JB (: <i>amrauk</i> AVP, see Hoffmann 1975: 235): <i>mrócati</i> AV+, OAv. <i>mraoca</i>-<sup>ti</sup></p> <p>YAv. <i>apa.hidaṭ</i> intr. ‘escaped’ Yt.19.56 (see Hintze 1994: 286f. for discussion and lit.): <i>sédhati</i> ‘drive away, keep away’ RV (: <i>má prá sedhīṣ</i> RV 10.27.20, <i>apa</i> +<i>asaitsam</i> JB) (: <i>sádhati/te</i> RV+)</p>	<p><i>árat</i> intr. RV+: <i>ṛṇóti</i>, <i>ṛṇvāti</i> RV+, <i>ṛcchāti</i> RV+. <sup>2</sup>OAv. <i>ārəm</i> Y 43.10: YAv. <sup>2</sup><i>ārənao</i>-<sup>ti</sup>, OP -<i>arsatiy</i> See the discussion at Kummel 2000: 106ff., 613ff. (: Hitt. <i>ar</i>-<sup>hhi</sup> ‘come, arrive’)</p> <p><i>atanat</i> intr. RV 8.72.18, <i>tanat</i> tr. RV 8.5.1<sup>15</sup> (<i>átan</i>, <i>atnata</i>, etc. RV+, <i>atān</i> RV, AV, <i>atāṁsit</i> TS, <i>atāṁsur</i> MS, see Narten 1964: 127f.): <i>tanóti</i>, <i>tanuté</i> RV+, YAv. <i>pairi.tanuiia</i>, -<i>tanauua</i> (: <i>tāyáte</i> RV, AV+, <i>ātānayati</i> AV)<sup>#C</sup></p> <p><i>dhṛṣamāna</i>- RV, <i>dhṛṣánt</i>- RV, <i>adhṛṣas</i> ŚB (: <i>dhṛṣāná</i>- AV): <i>dhṛṣnóti</i> RV, YAv. <i>upadaržnuuaiṅti</i> (: <i>abhí adharṣayati</i> YV<sup>P</sup>) (: <i>drūzoxū</i> Supr. 391, 23: <i>drūzno drūzṇoti</i>)<sup>#C</sup></p> <p><i>ávidat</i> RV+: <i>vindāti</i> RV+ (: <i>vidé</i> RV+, <i>ávedi</i> RV+, <i>vedáyati</i> RV+) OAv. <i>vidaṭ</i>: OAv. <i>vīnasī</i>, YAv. <i>viṇḍānti</i> (: OAv. <i>vaēdō.dūm</i>, OAv. <i>frauūōizdūm</i>) (: Gk. εἶδov, ClArm. <i>egit</i>)</p> <p><i>ásanat</i>, <i>sánat</i>, <i>sánema</i> RV+ (: <i>asāniṣam</i> RV, see Narten 1964: 263f.): <i>sanóti</i> RV+ OAv. <i>hanaēma(ca)</i> Y.41.4, <i>hanāt</i> Y.54.1 i.a., YAv. <i>hanaēša</i> Y.59.30</p> <p><i>ápat</i> RV: <i>āpnóti</i> AV+ (: Pf. <i>ápa</i> RV+) (: <i>āpyáte</i> Br+) OAv. <i>apaēmā</i> Vr.22.2 (: Pf. YAv. <i>āpa</i>) (: YAv. <i>apāiia</i>-<sup>ti</sup>, YAv. <i>āfānte</i> Y.57.27). See <i>LIV</i><sup>2</sup> 237: with lit.</p> <p><i>má sicas</i> RV 9.81.3, <i>sicāmahe</i> RV 2.16.7, etc. (: <i>abhyāsikṣi</i> MS pass., see Narten 1964: 267): <i>siñcāti/te</i> RV+ (: <i>sécate</i> intr. RV 10.96.1: OAv. <i>haēcaṭ.aspa</i>- PN Y.46.15, <i>sicyáte</i> RV+)</p>
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<sup>13</sup> Lowe 2015: 250f. suggests a nonce form because of the lack of an “attested verbal pattern.” While this is possible, the discussion here makes it obvious that the aorist in fact belongs to a well-represented averbic type.

<sup>15</sup> But see also Barnes 2024, who explains the intransitive form as an *aduhat*-type imperfect.

<p><i>aśramat</i> AV 6.60.2 (: tr. aor. subj. <i>nā mā taman nā śraman nótá tandran</i> RV 2.30.7, intr. <i>má śramiṣma</i> 2x RV. See Narten 1964: 259): <i>śrāmyati</i> RV+<sup>#</sup></p> <p><i>má tamas, má tamat</i> TB 3.7.2.7 (: trans. aor. subj. <i>nā mā taman nā sraman nótá tandran</i> RV 2.30.7. See Narten 1964: 101f.): <i>tām̐yati</i> Kāth.+ (: <i>tamayati</i> Kāth.+)<sup>#</sup></p> <p><i>duṣat</i> Br.: <i>duṣyati</i> AVP+ (: <i>dūṣáyati</i> RV+, <i>adūduṣat</i> RV+, see Jamison 1983: 95 for discussion)</p> <p><i>adṛpat</i> JB: <i>ádṛpyant-</i> RV</p> <p><i>amuhat</i> Br.: <i>múhyati</i> RV (: <i>moháyati</i> RV+, <i>amūmuhat</i> AV+)<sup>#</sup></p> <p><b>**<i>jurátam</i></b> tr. RV 1.182.3 (: <i>jāriṣur</i> intr. RV, see Narten 1964: 121): <i>júryati</i> RV, <i>jíryati</i> AV (: <i>járatī/te</i> tr. RV, mid. intr. RV 10.31.7 +) (: <i>jāráyant-</i> tr. RV+)<sup>#C</sup></p> <p><i>mṛṣanta</i> RV 8.18.21 (: <i>má mṛṣthās</i> RV, <i>marṣiṣthās</i> RV. See Narten 1964: 199f.): <i>mṛṣyate</i> RV+ (: <i>marṣayati</i> MS+, <i>mīmṛṣas</i> RV)<sup>#14</sup></p> <p><i>budhánta</i> RV 3x (: <i>ábodhi, ábudhran, ábhutsi</i> RV): <i>búdhate</i> RV, YAv. <i>būidiia-<sup>te</sup></i> (: <i>bodhayati</i> RV+, YAv. <i>baodaiiai-<sup>ti</sup></i>, <i>abūbudhat</i> RV+) (: <i>vūzbūdū: -bū(d)no -bū(d)noṭi</i> ‘wake up,’ ἐπυθόμεν Hom.+; πυυθόμεναι Hom.+; πεύθομαι Hom.+)<sup>C</sup></p>	<p>YAv. <i>pərəðan</i> V.3, 32: Ved. <i>pardate</i> DhP (: ἔπαρδον Ar.+; πέπορδα, πέρδομαι)</p> <p><i>ákhyat</i> RV+, <i>aksat, aksan</i> MS: <i>ávakāśate</i> ‘appear’ ŚB+ (: <i>cāṣte</i> RV+) (: <i>kāśayati</i> AV+) OAv. <i>āxsō</i> Y.46.2, <i>xsāi</i> Y.28.4, etc.: YAv. <i>ākasat</i> V.22.2,9 (: YAv. <i>caṣte</i> ‘teaches’) See <i>LIV</i><sup>2</sup>: 383ff. for discussion.</p> <p><i>avṛdhat</i> tr. RV, <i>vṛdhánt-</i> often intr. RV (: <i>vṛdhāná-</i> RV, <i>vardhiṣīmahi</i> VS+, see Narten 1964: 249): <i>várdhati/te</i> RV (intr. act. part. RV 1.51.9, possible intr. act. 6.38.3, 10.50.5, 10.61.26, see Gotō 1984: 290f. with lit., otherwise Jamison Brereton 2014), OYAv. <i>varəd/da-<sup>ti/te</sup></i> (: <i>vardháyati</i> RV+, <i>avīvydhat</i> RV+, OYAv. <i>varəd/daia-<sup>ti/te</sup></i>)<sup>#</sup></p> <p><b>**<i>ájuṣat, ájuṣata</i></b> RV+ (+ pres., revalued thematic aorist, see Gotō 1984: 154<sup>242</sup>) (: <i>juṣran, juṣāná-</i> RV; <i>jóṣi, joṣat</i> RV+, <i>joṣiṣat</i> RV, see Narten 1964: 120): loc. sg. part. pres. <i>jóṣati</i> RV 10.105.8 (: <i>joṣáyate</i> RV)<sup>#</sup></p> <p><b>**<i>jurátam</i></b> tr. RV 1.182.3 (: <i>jāriṣur</i> intr. RV, see Narten 1964: 121): <i>járatī/te</i> tr. RV, mid. intr. RV 10.31.7 + (: <i>júryati</i> RV, <i>jíryati</i> AV) (: <i>jāráyant-</i> tr. RV+)<sup>#C</sup></p> <p><b>**<i>aguhas</i></b> tr., <i>guhámāna-</i> RV (: <i>aghukṣat, aghukṣanta</i> RV+, secondary Narten 1964: 109): <i>gúhati/te</i> RV (: <i>guhyate</i> RV+) YAv. aor. <i>guzaēta</i> Yt. 4.4, <i>aguze</i> Yt.17.55, 56 (presumably aorist if Gotō 1984: 296<sup>704</sup> is correct that Ved. <i>gúhati/te</i> RV is due to specifically Vedic analogical remodeling after <i>úhati</i>. Implausible root aorist: <i>tudáti</i> present in <i>LIV</i><sup>2</sup>: 199) (: YAv. <i>fraguzaiianta</i> Yt.17.55)<sup>C</sup></p>	<p><sup>?</sup>YAv. <i>fraṣicanti</i> tr. Yt.14.54: YAv. <i>-hiṇca-<sup>ti</sup></i> (: OAv. <i>haēcaṣ.aspa-</i> PN Y.46.15, YAv. <i>us... haēcaia-<sup>ti</sup></i>)</p> <p><b>*<i>avidhat</i></b> RV+: <i>vindháte</i> RV OAv. <i>vidāit, vīdāiti</i> Y. 53.4, 51.6. See Hoffmann 1975: 238ff. and Mayrhofer 1992-2005: s.r. <i>vidh-</i> with lit.</p> <p><i>piśá</i> RV 7.18.2 (: <i>piśāna-</i> RV 7.57.3): <i>piṁśati/te</i> RV+ (: <i>piśyáte</i> AV+, YAv. <i>aṅku.paēsəmna-</i> Yt.17.10) OP &lt;a-pi-θa&gt; Dsf 55, DB IV 71 aor. or impf. See Hill 2007: 50f.<sup>C</sup></p> <p><i>ákṛtas</i> RV 1.63.4 (: <i>kartīṣ</i> Br, see Narten 1964: 96): <i>kṛntáti/te</i> RV+, YAv. <i>kərənta-<sup>ti/te</sup></i>, <i>kərəntaiia-<sup>ti</sup></i> (: YAv. <i>kərəntaiia-<sup>ti</sup></i>, YAv. <i>frakərəθiiāt</i> pass. See Hill 2007: 35)</p> <p><i>ámucat/te</i> RV+ (: <i>ámugdhvam</i> tr. RV 3.55.6, <i>ámok</i> AV 12.2.12, <i>ámukthās</i> AV 2.10.6, <i>mogdhi</i> TA, <i>amauk</i> MS, <i>mauk</i> Kāth.+ , <i>mukṣata, mukṣīya</i> RV, see Narten 1964: 194): <i>muñcáti/te</i> RV+ (: <i>múcyate</i> intr. RV, <i>mucyáte</i> AV+) (: OCS <i>promúče se: promúknoti se</i>)</p> <p><i>út... śiṣas</i> RV+ (: <i>út śeṣi</i> AV+) <i>śimṣati</i> Kāth.+ , <i>śinaṣti</i> YV (: <i>śisyate</i> YV)</p> <p><i>aśema</i> RV 1.24.5, 1.89.8, 5.30.2 (: <i>ānaṣ</i>, etc. RV): <i>aśnóti</i> RV+ OAv. <i>frōsīiāt</i> Y.46.8, 3rd sg. mid. <i>fraṣtā</i> Y.43.14: YAv. <i>aśnao-<sup>ti</sup></i></p> <p><i>má bhujema</i> RV Secondary Hoffmann 1967: 95ff. (: <i>má bhojam</i>, subj. <i>bhojate</i> RV, <i>bhuṣiṣīmahi</i> MS, see Narten 1964: 182 ): <i>bhunákti, bhunkté, ábhunjant</i> RV+ (: <i>bhojayati</i> AV)</p> <p><i>śakéma</i> RV, <i>aśakat</i> AV 1.27.3 (: <i>śaktam, śagdhi</i>, subj. <i>śakas, śakat</i>, etc. RV): <i>śaknóti</i> (: aor. or perf. YAv. <i>sacīārāṣ</i>, YAv. <i>sācaia-<sup>ti</sup></i>)</p>
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<sup>14</sup> For this and the following form, see Grestenberger 2021 for discussion.

		<p><i>akaras. akarat</i> AV+ (: <i>ákaram, ákar</i>, etc. RV+, <i>akārṣam</i> TB): <i>kṛṇóti</i> RV+ OAv. <i>cōrəṭ</i> Y.45.9, etc.: OAv. <i>kərənaon</i> Y.30.9, YAv. <i>kərənao-<sup>ti</sup></i></p> <p><i>rdhema, rdhet</i> AV (: ?part. <i>rdhántas</i> RV 7.87.7, subj. or adv. part. <i>rdhad</i> RV 6.2.4, <i>rdhyās, rdhyām</i>, etc. RV, <i>ārdhma</i> Br+: <i>ṛṇádhat</i> RV, <i>rdhnóti</i> ‘id.’ RV, AV 1x: <i>rdhyate/rdhyáte</i> ‘succeed’ RV+ (: <i>sám rdhyatām</i> RV 10.85.27, <i>ardháyati</i> AV) OAv. subj. <i>arədat</i> Y.50.11 (: YAv. <i>ərdat.fədrī-</i>)<sup>#</sup></p> <p><i>ahyam</i> AV 4.1.2 (: <i>áhema</i> RV, <i>ahyan</i> RV, <i>ahṣata</i> RV, <i>ahait</i> AV, see Narten 1964: 287): <i>hinóti, hinvé</i> RV (: YAv. <i>frazaiiaia-<sup>ti</sup></i>)</p> <p><i>bhideyam</i> AV (: <i>abhedam, abhet</i>, etc. RV+, <sup>+</sup><i>abhaitsam</i> AVP, <i>bhitthās</i> Kāth.+, see Narten 1964: 180): <i>bhináti</i> RV+ (: <i>bhidyéte</i> Br.+)</p> <p><i>atṛham</i> AV 2.31.2: <i>tṛmháti</i> RV+, <i>tṛnédhu</i> AV (: <i>tṛhyáte</i> AV)</p> <p><i>má daghat</i> TS 1.2.9.1 (: <i>má dhak</i> RV, etc. RV): <i>daghniyāt</i> Kāth.+</p> <p>YAv. <sup>?</sup><i>bujat</i> Yt.4.3 ‘frees’: <i>bunjaiṅti</i> (or <i>bunjaiiati</i>) Yt.14.46 (Pāli <i>paribhuñjati</i> ‘cleans, purifies’) (: ἔφουγον Hom.+)</p>
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4.2 From this survey it is possible to note several significant distributional facts.

4.2.1.1 The attested thematic aorist forms fall into well-defined averbic categories. The likely analogical forms we can identify are not frequent – apart from the nasal-infix class, which has a special explanation – and nearly all are exclusively aligned with these categories.<sup>16</sup>

4.2.1.2 In each averbic category, thematic aorist forms are well embedded already in the RV and often represent the only aorist that can be considered old for the root in question. In each of these categories we have exactly parallel forms in Avestan, where the thematic aorist is considerably rarer.

<sup>16</sup> Exceptions include the isolated cases of Cardona’s secondary thematic aorist Paradebeispiele *dṛśeyam, dṛśema* RV, *darśas* Br.+ (: *darśam, adarśma* RV+) and *agamat* RV 10.60.7, *gamema* i.a. RV (: *ágan, agman* RV, OAv. *-jān, -gmān*): *gacchāti*. Both forms are obviously analogical to the variation in root aorist and thematic aorist forms illustrated in the survey above. *agamat* RV 10.60.7, *gamema* i.a. RV: *gacchāti* RV+ might further be aligned specifically with the pattern we have in *ārat* intr. RV+: *ṛṇóti, ṛṇvāti* RV+, *ṛchāti* RV+.

Athematic Presents	Reduplicated Presents	<i>i</i> -Presents
<p>OYAv. <i>tāšaṭ</i>: OAV. <i>tāšt</i>, YAv. <i>auui... tāšti</i> <i>átakṣat</i> RV+: <i>tāṣti</i>, <i>tákṣati</i> (: <i>ataksišur</i> RV) (: <i>takṣnoti</i> Br.)</p> <p>OAv. impv. <i>sišā</i>: OAv. <i>sāstī</i> <i>śiṣat</i>, <i>śśiṣāmahi</i> RV+: <i>śāsti</i> RV+ (: Alb. <i>thashē</i>: pr. 3<sup>rd</sup> sg. <i>thotē</i>. See Matzinger Schumacher 2013: 1001 with lit.)</p>	<p>OAv. <i>ḥrā</i> intr. Y.46.10, YAv. <i>ḥrā</i> intr. (: <i>pārṣi</i> tr. RV, subj. <i>parṣat(i)</i>) tr. RV, subj. <i>pārīṣat</i> tr. RV): <i>pīpartī</i> tr. RV+ (: YAv. <i>-pārāiia-<sup>ti</sup></i>; <i>pārāyati</i> RV, <i>pīpārat</i> RV)</p>	<p>OAv.+ <i>xšəntā</i>, <i>xšaētā</i>, <i>xšəntam</i>, YAv. <i>xšaēša</i>: OYAv. <i>xšaiia-<sup>ti/te</sup></i>, Ved. <i>kṣáyati</i> RV+</p>

Presents <i>-jo/e-</i>	Full-Grade Thematic Presents	Nasal-Infix Presents
<p><i>mā ā śriṣat</i> intr. RV 1.162.11, YAv. N.99 <i>ḥam.srišaiti</i> tr., <i>ḥam.srišāiti</i> tr.: <i>āślīyati</i> MS+ (: <i>śleṣáyati</i> YV)<sup>#</sup></p>	<p>YAv. <i>apa.hiḍaṭ</i> intr. ‘escaped’ Yt.19.56 (see Hintze 1994: 286f. for discussion and lit.): <i>sédhati</i> ‘drive away, keep away’ RV (: <i>mā</i> <i>prá sedhīṣ</i> RV 10.27.20, <i>apa</i> <sup>+</sup><i>asaitsam</i> JB) (: <i>śádhati/te</i> RV+)</p> <p>YAv. <i>pərəḍan</i> V.3, 32: Ved. <i>pardate</i> DhP (: <i>ἐπαρδον</i> Ar.+: <i>πέπορδα</i> Ar., <i>πέρομαι</i> Ar.)</p> <p><i>ákhyat</i> RV+, <i>akṣat</i>, <i>akṣan</i> MS: <i>ávakāśate</i> ‘appear’ SB+ (: <i>caṣte</i> RV+) (: <i>kāśayati</i> AV+)</p> <p>OAv. <i>āxsō</i> Y.46.2, <i>xsāi</i> Y.28.4, etc.: YAv. <i>ākasaṭ</i> V.22.2,9 (: YAv. <i>caṣte</i> ‘teaches’) See <i>LIV</i><sup>2</sup>: 383ff. for discussion.</p> <p>**<i>aguhas</i> tr., <i>guhāmāna-</i> RV (: <i>aghukṣat</i>, <i>aghukṣanta</i> RV+, secondary Narten 1964: 109): <i>gúhati/te</i> RV (: <i>guhýate</i> RV+) YAv. aor. <i>guzaēta</i> Yt. 4.4, <i>aguze</i> Yt.17.55, 56 (presumably aorist if Gotō 1984: 296<sup>704</sup> is correct that Ved. <i>gúhati/te</i> RV is due to specifically Vedic analogical remodeling after <i>úhati</i>. Implausible root aorist: <i>tudáti</i> present in <i>LIV</i><sup>2</sup>: 199) (: YAv. <i>fraguzaiianta</i> Yt.17.55)<sup>C</sup></p>	<p><i>árat</i> intr. RV+: <i>ṛṇóti</i>, <i>ṛṇvāti</i> RV+, <i>ṛcchāti</i> RV+, <sup>?</sup>OAv. <i>ārəm</i> Y 43.10: YAv. <i>ṛəṇao-<sup>ti</sup></i>, OP <i>-arsatiy</i>. See Kummel 2000: 106ff., 613ff. (: Hitt. <i>ar-<sup>hhi</sup></i> ‘come, arrive’)</p> <p><i>ávidat</i> RV+: <i>vindáti</i> RV+ (: <i>vidé</i> RV+, <i>ávedi</i> RV+, <i>vedáyati</i> RV+) OAv. <i>vidaṭ</i>: OAv. <i>vinastī</i>, YAv. <i>viṇḍənti</i> (: OAv. <i>vaēdō.dūm</i>, OAv. <i>frauuoīzdūm</i>) (: Gk. <i>εἶδον</i>, ClArm. <i>egit</i>)</p> <p><i>ásanat</i>, <i>sánat</i>, <i>sánema</i> RV+ (: <i>asāniṣam</i> RV, see Narten 1964: 263f.): <i>sanóti</i> RV+ OAv. <i>hanaēma(ca)</i> Y.41.4, <i>hanāt</i> Y.54.1 i.a., YAv. <i>hanaēša</i> Y.59.30</p> <p><i>ápat</i> RV: <i>āpnóti</i> AV+ (: Pf. <i>ápa</i> RV+) (: <i>āpyáte</i> Br+) OAv. <i>apaēmā</i> Vr.22.2 (: Pf. YAv. <i>āpa</i>) (: YAv. <i>apaiia-<sup>ti</sup></i>, YAv. <i>āfənte</i> Y.57.27). See <i>LIV</i><sup>2</sup> 237: with lit.</p> <p><i>mā sicas</i> RV 9.81.3, <i>sicāmahe</i> RV 2.16.7, etc. (: <i>abhyāsikṣi</i> MS pass., see Narten 1964: 267): <i>siñcáti/te</i> RV+ (: <i>sécate</i> intr. RV 10.96.1: OAv. <i>haēcaṭ.aspa-</i> PN Y.46.15, <i>sicyáte</i> RV+) <sup>?</sup>YAv. <i>frašicanti</i> tr. Yt.14.54: YAv. <i>-hiñca-<sup>ti</sup></i> (: OAv. <i>haēcaṭ.aspa-</i> PN Y.46.15, YAv. <i>us... haēcaia-<sup>ti</sup></i>)</p> <p><i>piśá</i> RV 7.18.2 (: <i>piśāna-</i> RV 7.57.3): <i>piṃśati/te</i> RV+ (: <i>piśyáte</i> AV+, YAv. <i>aṅku.paēsəmna-</i> Yt.17.10)</p>

		<p><sup>?</sup>OP &lt;a-pi-θa&gt; Dsf 55, DB IV 71 aor. or impf. See Hill 2007: 50f.<sup>C</sup></p> <p>YAv. <sup>?</sup>+ <i>bujat</i> Yt.4.3 ‘frees’: <i>bunjaiṅti</i> (or <i>bunjaiiati</i>) Yt.14.46 (Pāli <i>paribhuñjati</i> ‘cleans, purifies’) (: ἔφουγον Hom.+)</p>
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4.2.3.1 In nearly all categories, intransitive forms predominate – excepting *i*-presents and nasal-infix presents, where there is considerable analogical extension but where we also find synchronically irregular forms like *átṛpat* AVŚ 3.13.6 (: adv. *ṭṛpát* RV): *ṭṛmpáti* (+ gen.) RV, *ṭṛpnóti* ‘id.’ RV, *árat* intr. RV+: *ṛnóti*, *ṛnváti* RV+, *ṛccháti* RV+, <sup>?</sup>OAv. *ārəm* Y 43.10: YAv. <sup>?</sup>*arənao-<sup>ti</sup>*, and possibly *atanat* intr. RV 8.72.18: *tanóti*, *tanuté* RV+.

4.2.3.2 While in some cases our thematic forms compete with intransitive root aorists and are perhaps analogical replacements – cf. e.g. *má riṣam*, *riṣat* RV (: intr. root aor. subj. *reṣat* RV 7.20.6, tr. *rīdhvam* TA): *riṣyati* RV+, YAv. *iriṣiia-<sup>ti/te</sup>* (: *reṣáyati* RV+, *rīriṣat* RV+, YAv. *raēṣaiia-<sup>ti</sup>*) or *aśramat* AV 6.60.2 (: intr. *má śramiṣma* 2x RV – on which see Narten 1964: 259 –, tr. aor. subj. *ná mā taman ná śraman nóta tandran* RV 2.30.7): *śrāmyati* RV+ –, in others they are opposed to transitive root aorists, *s*-aorists, or reduplicated aorists and seem to replicate the stem-based transitivity opposition outlined above for Greek.

Intransitive Thematic Aorist: Transitive Root Aorist	Intransitive Thematic Aorist: Transitive S-Aorist	Intransitive Thematic Aorist: Transitive Reduplicated Aorist
<p><i>má radham</i> RV 1.50.13, <i>má radhāma dviṣaté</i> 10.128.5 (: tr. <i>randhīṣ</i> 3x RV, tr. <i>randhi</i> RV 4.22.9., see Narten 1964: 218): <i>rádhyati</i> AV+ (: <i>randháyati</i> RV+, <i>má rīradhas</i> RV)<sup>#C</sup></p> <p><i>atanat</i> intr. RV 8.72.18, <i>tanat</i> tr. RV 8.5.1 (<i>átan</i>, <i>atnata</i>, etc. RV+, <i>atān</i> RV, AV, <i>atāmsit</i> TS, <i>ataṃsur</i> MS, see Narten 1964: 127f.): <i>tanóti</i>, <i>tanuté</i> RV+, YAv. <i>pairi.tanuia</i>, -<i>tanauua</i> (: <i>tāyáte</i> RV, AV+, <i>átānyati</i> AV)<sup>#C</sup></p> <p><i>má tamas</i>, <i>má tamat</i> TB 3.7.2.7 (: trans. aor. subj. <i>ná mā taman ná sraman nóta tandran</i> RV 2.30.7. See Narten 1964: 101f.): <i>tāmyati</i> Kāth.+ (: <i>tamayati</i> Kāth.+)<sup>#</sup></p> <p>(<i>má</i>) <i>krudhat</i> AV+: <i>krúdhyati</i> AV+ (: OAv. tr. root aor. subj. <i>xraodaṭ</i> Y.46.11, <i>xraodaitī</i> Y.51.13) (: <i>krodháyati</i> AV, <i>ácukrudhat</i> RV+)<sup>#</sup></p> <p>YAv. <i>apa.hiḍaṭ</i> intr. ‘escaped’ Yt.19.56 (see Hintze 1994: 286f. for discussion and lit.): <i>sédhati</i> ‘drive away, keep away’ RV (: <i>má prá sedhīṣ</i> RV 10.27.20, <i>apa<sup>+</sup>asaitsam</i> JB) (: <sup>?</sup><i>sādhati/te</i> RV+)</p>	<p>OAv. <sup>?</sup><i>frā</i> intr. Y.46.10, YAv. <sup>?</sup><i>frā</i> intr. (: <i>pārṣi</i> tr. RV, subj. <i>parṣat(i)</i> tr. RV, subj. <i>pāriṣat</i> tr. RV): <i>píparti</i> tr. RV+ (: YAv. <i>-pāraia-<sup>ti</sup></i>, <i>pāráyati</i> RV, <i>pipárat</i> RV)</p>	<p><i>má dasat</i>, <i>dásamāna-</i> RV+, <i>jásamāna-</i> RV 7.68.8 (: <i>dāsīt</i> RV, metrically motivated Narten 1964: 134): <i>dásyati</i> RV+, <i>ní jasyata</i> RV 1.191.7 (: <i>dasayate</i> RV 5.45.3 ‘become exhausted’ RV; <i>dāsayati</i> AV, <i>jaśayati</i> Br, <i>ajījasat</i> YV)<sup>#C</sup></p> <p>(<i>má</i>) <i>riṣam</i>, <i>riṣat</i> RV (: intr. root aor. subj. <i>reṣat</i> RV 7.20.6, tr. <i>rīdhvam</i> TA): <i>riṣyati</i> RV+, YAv. <i>iriṣiia-<sup>ti/te</sup></i> (: <i>reṣáyati</i> RV+, <i>rīriṣat</i> RV+, YAv. <i>raēṣaiia-<sup>ti</sup></i>)</p> <p><i>má radham</i> RV 1.50.13, <i>má radhāma dviṣaté</i> 10.128.5 (: tr. <i>randhīṣ</i> 3x RV, tr. <i>randhi</i> RV 4.22.9., see Narten 1964: 218): <i>rádhyati</i> AV+ (: <i>randháyati</i> RV+, <i>má rīradhas</i> RV)<sup>#C</sup></p> <p>(<i>má</i>) <i>ṭṛṣat</i> AV+ (: <i>ṭṛṣāná-</i> RV): <i>ṭṛṣyati</i> (: <i>vitarṣayati</i> Kāth.+ <i>atīṭṛṣāma</i> RV+)<sup>#C</sup></p> <p>(<i>má</i>) <i>krudhat</i> AV+: <i>krúdhyati</i> AV+ (: OAv. tr. root aor. subj. <i>xraodaṭ</i> Y.46.11, <i>xraodaitī</i> Y.51.13) (: <i>krodháyati</i> AV, <i>ácukrudhat</i> RV+)<sup>#</sup></p>

		<p><i>duṣat</i> Br.: <i>duṣyati</i> AVP+ (: <i>dūṣáyati</i> RV+, <i>adūduṣat</i> RV+, see Jamison 1983: 95 for discussion)</p> <p><i>amuhat</i> Br.: <i>múhyati</i> RV (: <i>moháyati</i> RV+, <i>amūmuhat</i> AV+)#</p> <p><i>aśucāt</i> RV+, <i>śucánt-</i> RV+, <i>śucámāna-</i> RV (: <i>aśoci</i> 2x RV, <i>sociḥ</i> VS+, see Narten 1964: 256f.): <i>śócati/te</i>, YAv. <i>saociñt-</i> (: <i>śucáyant-</i> intr. RV; <i>śocáyati</i> RV+, OAv. <i>saocaiia-<sup>ti</sup></i>, <i>śūsucat</i> AV)#<sup>C</sup></p> <p><i>avṛdhat</i> tr. RV, <i>vṛdhánt-</i> often intr. RV (: <i>vṛdhāná-</i> RV, <i>vardhiṣīmahi</i> VS+, see Narten 1964: 249): <i>várdhati/te</i> RV (intr. act. part. RV 1.51.9, possible intr. act. 6.38.3, 10.50.5, 10.61.26, see Gotō 1984: 290f. with lit., otherwise Jamison Brereton 2014), OYAv. <i>varəd/ḍa-<sup>ti/te</sup></i> (: <i>vardháyati</i> RV+, <i>avīvṛdhat</i> RV+, OYAv. <i>varəd/ḍaiia-<sup>ti/te</sup></i>)#</p> <p><i>átṛpat</i> AVŚ 3.13.6 (: adv. neut. <i>tṛpát</i> 3x RV): <i>tṛmpáti</i> (+ gen.) RV (12x), <i>tṛpnóti</i> ‘id.’ RV (5x), <i>tṛpyati</i> AV+ (: <i>tarpáyati</i> RV+, <i>atīṛpat</i> AV+)</p>
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4.2.4.1 Indo-Iranian shows a close correlation with Greek and OCS in averbic distribution patterns. It matches Greek in showing the thematic aorist beside reduplicated and full-grade thematic presents, and further both Greek and OCS in pairing it with *je/o*-presents and the thematized nasal-infix presents – a type whose presence in Ir. was outlined last year.

4.2.4.2 What is remarkable is that of the roughly 9 or possibly 10 verbs in Vedic that continue to show these intransitive nasal-infix thematic forms, 6 have attested aorist forms and a full 5 use the thematic aorist, with the final case ambiguous between root and thematic aorist.

Thematic Nasal-Infix Intransitives	Aorist Averbo
<p><i>tṛmpáti</i> ‘enjoy, take delight in, fill up on (+gen.)’ RV (12x), <i>tṛpnóti</i> ‘id.’ RV (5x), <i>tṛpyati</i> AV+: <i>átṛpat</i> AVŚ 3.13.6 (: adv. neut. <i>tṛpát</i> RV 3x)</p> <p>Cf. YAv. n. sg. <i>θṛafš<sup>o</sup></i> ‘satisfaction (<i>vel sim.</i>)’ Yt.5.26, YAv. <i>θṛafḍdra-</i> ‘rich in; satisfied,’ which points to the Indo-Iranian age of the present.</p>	<p><i>átṛpat</i> intr. AVŚ 3.13.6 (: adv. nt. <i>tṛpát</i> 3x RV): <i>tṛmpáti</i> (+ gen.) RV (12x), <i>tṛpnóti</i> ‘id.’ RV (5x), <i>tṛpyati</i> AV+ (: <i>tarpáyati</i> RV+, <i>atīṛpat</i> AV+) (: <i>ἐταρπόμεν</i> Hom., <i>ἔτρεψα</i>: <i>τέρπω</i>, <i>-ομαι</i> Hom.)#<sup>C</sup></p>
<p><i>ṛnóti</i>, <i>ṛnváti</i> ‘set in motion, impel (tr., intr. mid.),’ <i>ṛccháti</i> RV+ (~ <i>íyarti</i>, <i>írāte</i> ‘id.’ RV+: <i>ārta</i> intr. RV+)</p> <p>RV 6.2.6ab <i>tveṣás te dhūmá ṛnvati divi śāñ chukrá ātatah/</i></p>	<p><i>árāt</i> intr. RV+: <i>ṛnóti</i>, <i>ṛnváti</i> RV+, <i>ṛccháti</i> RV+, <i>ar-</i> OAv. <i>ārəm</i> Y 43.10: YAv. <i>arənao-<sup>ti</sup></i>, OP <i>-arsatiy</i> (: Hitt. <i>ar-<sup>hbi</sup></i>) See Kummel 2000: 106ff., 613ff.</p>

<p>“Your smoke, when it is in heaven, is turbulent in motion, stretched out (there) gleaming...” (Jamison Brereton 2014)</p> <p>Possibly further RV 1.144.5cd, 3.11.2c.</p>	
<p><i>siñcāti/te</i> ‘pour out (tr., intr. mid.)’ RV+ (: YAv. -<i>hiñca</i>-<sup>ti</sup> ‘id.’): <i>sécate</i> ‘pour out (intr.)’ RV 10.96.1 (: OAv. PN <i>Haēcaṭ.aspa</i>-), <i>sicyáte</i> ‘id.’: RV <i>ásicat/ta</i> RV+</p> <p>RV 5.85.6cd <i>ékam yád udnā ná pṛṇánti éñīr āsiñcántīr avánayaḥ samudrám//</i></p> <p>“That the mottled streams, pouring out, do not fill the single sea with water” (Jamison Brereton 2014)</p> <p>Possible also RV 1.121.6cd (<i>siñcāñ</i>). See Hill 2007: 92ff. with lit.</p>	<p><i>mā sicas</i> RV 9.81.3, <i>sicāmahe</i> RV 2.16.7, etc. (: <i>abhyāsikṣi</i> MS pass., see Narten 1964: 267): <i>siñcāti/te</i> RV+ (: <i>sécate</i> intr. RV 10.96.1: OAv. <i>haēcaṭ.aspa</i>- PN Y.46.15, <i>sicyáte</i> RV+), <sup>?</sup>YAv. <i>frašicanti</i> tr. Yt.14.54: YAv. -<i>hiñca</i>-<sup>ti</sup> (: OAv. <i>haēcaṭ.aspa</i>- PN Y.46.15, YAv. <i>us...</i> <i>haēcaīia</i>-<sup>ti</sup>)</p>
<p><i>muñcāti/te</i> ‘release, set free (tr., intr. mid.)’ RV+: <i>múcyate/mucyáte</i> ‘get free’ RV+ (: <i>ámucat</i> RV+, <i>ámugdhvam</i> RV+). See Zasada 2021: 214. (: OCS <i>promükno -müknoṭi se</i>, Lith. <i>muñka mukti</i>)</p> <p>AVŚ 8.7.10ab <i>unmuñcántīr vivaruṇā ugrā yá viśadúśanīḥ /</i></p> <p>“Sich befreiend, frei von Varuṇa, mächtig, die Gift zerstörend sind... [= Pflanzen]” (Zasada 2021: 214)</p> <p>Cf. 8.7.4 (intr.) <i>prastrṇatīs, pratanvatīs</i>. For full discussion, see Zasada 2021: 214.</p>	<p><i>ámucat/ta</i> RV+ (: <i>ámugdhvam</i> tr. RV 3.55.6, <i>ámok</i> AV 12.2.12, <i>ámukthās</i> AV 2.10.6, <i>mogdhi</i> TA, <i>amauk</i> MS, <i>mauk</i> Kāth.+ , <i>mukṣata</i>, <i>mukṣīya</i> RV, see Narten 1964: 194): <i>muñcāti/te</i> RV+ (: <i>múcyate</i> intr. RV, <i>mucyáte</i> AV+) (: OCS <i>promiče se: promüknoṭi se</i>)</p>
<p><i>ṛnádhat</i> ‘accomplish’ RV AV, <i>ṛdhnóti</i> ‘id.’ RV 1x, AV 1x: <i>ṛdhyate/ṛdhyáte</i> ‘succeed’ RV+</p> <p>RV 1.173.11 <i>yajñó hí śma índaram± kás cid ṛndhāñ juhurānás cin mánasā pariyán / tīrthé ná áchā iāṭṛṣāṇám óko dīrghó ná sidhrám ā kṛṇoti ádhvā//</i></p> <p>“For any sacrifice that reaches fulfillment, even though it swerves along, meandering in mind, brings Indra to the house, as if bringing a thirsting man to a ford—as a long road brings home a man who reaches his goal.” (Jamison Brereton 2014)</p>	<p><i>ṛdhema, ṛdhet</i> tr. AV (: <sup>?</sup>part. <i>ṛdhántas</i> RV 7.87.7, subj. or adv. part. <i>ṛdhad</i> RV 6.2.4, <i>ṛdhyās, ṛdhyām</i>, etc. RV, <i>ārdhma</i> Br+): <i>ṛnádhat</i> RV, <i>ṛdhnóti</i> ‘id.’ RV, AV 1x: <i>ṛdhyate/ṛdhyáte</i> ‘succeed’ RV+ (: <i>sám ṛdhyatām</i> RV 10.85.27, <i>ardháyati</i> AV), OAv. subj. <i>arədaṭ</i> Y.50.11 (: YAv. <i>arədaṭ.fəḍrī-</i>)<sup>#</sup></p>

4.2.4.3.1 While *átṛpat* intr. AVŚ 3.13.6 and *árat* intr. RV+, <sup>?</sup>OAv. *ārəm* Y 43.10 preserve their original intransitive semantics, it is straightforward to assume that the other three have secondarily developed a transitive: intransitive opposition by pleonastically medializing the intransitive active and then backforming a corresponding transitive active form. Viz.

Root Aorist Transitive		Thematic Aorist Intransitive
PIIr. <sub>1</sub> * <i>ásaikt</i> , <i>ásikta</i> ‘pour out (tr., intr.)’	:	* <i>ásičāt</i> ‘pour out (intr.)’
		⇓
		* <i>ásičāt</i> , <i>ásičata</i> ‘id.’
		⇓
PPIr. <sub>3</sub> * <i>ásičāt</i> , <i>ásičata</i> ‘pour out (tr., intr.)’ (> Ved. <i>ásicat</i> , <i>ásicata</i> ‘id.’, ?YAv. <i>frašicanti</i> tr. Yt.14.54)	⇐	* <i>ásičata</i> ‘id.’

4.2.4.3.2 Both “pleonastic” medialization and the backformation of a transitive active from an intransitive middle stem are well paralleled analogical developments in Indic and Iranian, cf. e.g. Ved. *édhate* (: αἶθω Pi.S., αἶθουσα ‘portico’ Hom.+ [ : αἶθομαι Hom.+], ClArm. *ayrem*) and Ved. *śráyati* (: YAv. *-sirinao-<sup>ti</sup>*; Ved. *śráyate*).

4.2.4.3.3 Both developments have also affected the corresponding nasal-infix present stems and have an exact parallel in what should be assumed i.a. for *avṛdhat* tr. RV, *vṛdhánt-* often intr. RV: *várdhati/te* RV (intr. act. part. RV 1.51.9, possible intr. act. 6.38.3, 10.50.5, 10.61.26, see Gotō 1984: 290f. with lit., otherwise Jamison Brereton 2014), OYAv. *varəd/ḍa-<sup>ti/te</sup>* (: *vardháyati* RV+, *avīvṛdhat* RV+, OYAv. *varəd/ḍaiia-<sup>ti/te</sup>*)#.

## Conclusion

5.0 From this survey it is possible to draw several conclusions:

5.1 OCS, Greek and Indo-Iranian match one another exceptionally closely in their use and distribution of the thematic aorist. In all three branches we see that the category has a propensity to be intransitive – even in the active. All three branches show nearly exact agreement in morphological patterning.

5.2 Given the agreement of these branches and the robust attestations of these patterns, there is no reason to assume this semantic and morphological overlap is secondary or the result accidental branch internal developments – the thematic aorist and the patterns we see here should be reconstructed for the ancestor of these branches.

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