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## **Present stem vs. aorist stem between aspect and actionality: evidence from ancient Greek and Vedic**



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## *Aorist/Imperfect in ancient Greek and Vedic \_Research Questions and Objectives*

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The distinction between aorist and imperfect is proper to Greek and Indo-Iranian languages (cf. Delbrück 1897; Meillet 1922a; Kuryłowicz 1964; Lazzeroni 1977, 1980, 1982, 1984, 2017a). Imperfect = present stem vs. aorist = non-present stem:

- Ssk. *\*bhid-* “split”, “break” → pr. *bhinatti* (nasal infix inserted into the root)  
imperfect *abhinat* (< *\*bhinad-t*) vs. aorist *abhet* (< *\*bheid-t*)
- Gr. βαίνω “go”  
imperfect ἔβαινον vs. aorist ἔβην

«Although the distinction between present [stem] and aorist [stem] is preserved only in Greek and Indo-Iranian, the opposition between them cannot be explained as a separate creation of these languages, since aorist formations underlie preterite formations in several of the other IE [Indo-European] languages» (Clackson 2007: 133; cf. Wackernagel 1904, 1926; Elizarenkova 1960; Narten 1964, 1968; Hoffmann 1976 [1970], Lazzeroni 1977, 2008, among many others)

## *Aorist/Imperfect in ancient Greek and Vedic – Research Questions and Objectives*

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- Both aorist and imperfect encode past meaning
- Their functional distinction = a long-debated issue

→ “Aspectual Hypothesis”: Brugmann (1900) [1885]: 469 ff.

(see also Delbrück 1897: 37-38, 74 ff., 260-305; Meillet 1922a: 210 ff.; 1922b: 70-75; Chantraine 1953: 183 ff.; Kuryłowicz 1964; Rijksbaron 1984: 2-4, 12 ff.; Napoli 2006, 2014; Haug 2008; Dahl 2008, 2010)

Hoffmann (1976 [1970]: 531):

Atelic roots – imperfective root present (→ imperfect)

Telic roots – perfective root aorist

## *Aorist/Imperfect in ancient Greek and Vedic – Research Questions and Objectives*

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Evidence from Vedic and Homeric Greek reveals a more complicated scenario (Romagno 2021); in particular:

1. the alternation between aorist and imperfect does not consistently encode aspectual distinctions and, specifically, the perfective/imperfective distinction;
2. actionality and, specifically, the telic/atelic distinction does not appear to be the ultimate principle that underlies the distribution of aorist and imperfect and determines whether a given verbal lexeme originally selected an aorist past or an imperfect past;
3. the grammaticalization of tense is crucial to the aorist/imperfect distinction;
4. the creation of the functional opposition between the two categories appears to be an ongoing process in Rig Vedic and Homeric texts, which indicates that this opposition was not yet grammaticalized in an archaic phase of the Vedic and Greek verb system and, therefore, cannot be attributed to the Indo-European tradition passed on into the Vedic and Greek verb system.

- There is a need for distinguishing aspect from actionality both theoretically and methodologically.
- The grammaticalization of tense in the ancient Indo-European world is relatively recent; the formal distinction between aorist and imperfect is consequent to the acquisition of the morphological expression of tense (Lazzeroni 1977, 1980, 1982, 1984, 2017; cf. Thurneysen 1885; Kuryłowicz 1932, 1964; Stang 1932).
- Root formations represent a key category; the root type remained longer unaffected by the grammaticalization of tense.

## *Aorist/Imperfect\_The Aspectual Hypothesis\_Evidence from Vedic*

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Aspectual Hypothesis:

→ the lexical meaning of the verbal roots that yielded a root aorist includes «mit Sicherheit keine durative, sondern punktuelle oder momentative Aktionsart» (Hoffmann 1976 [1970]: 532)

HOWEVER

atelic roots with root aorist

*bhrāj-* “shine”

*kṛp-* “yearn, desire”

*yudh-* “fight”, *vas-* “shine”

*mud-* “be delighted, rejoice”

*man-* “think”

*dhā-* “suck”

*pā-* “drink”

*vij-* “speed, tremble”,

etc.

telic roots with root present

verbs denoting “agent-oriented” events

e.g., *hánti* “kill, destroy”

*sūte* “create, give birth to”

etc.

- **Root formations and the nasal and -ya- classes** (cf. Lazzeroni 2002, 2004, 2008, 2017; Kulikov 2000, 2012, 2013):
- Nasal presents: highly telic and highly transitive verbal roots: e.g., *kṣiṇāti* “destroy”, *prṇāti* “fill up”, *bhinatti* “split, break”, *ṛṇaddhi* “accomplish”, *chinatti* “cut off”, *mināti* “destroy, damage, deteriorate”, etc.
  - Nasal presents: paradigmatic relationship with the root aorist, whereas rare (or no) root presents allomorphic with nasal presents (cf. Joachim 1978: 130).
  - A root injunctive (e.g., *\*bheid-t* > Skr. *bhet*) of a telic root (e.g., *\*bhid-* “split, break”) must have coexisted with the nasal injunctive (e.g., *\*bhinad-t* > Skr. *bhinat*), from which the nasal present (e.g., *\*bhinad-ti* > Skr. *bhinatti*) was formed; consequently, the residual injunctive forms, the one with the present stem (e.g., *bhinat* – later, *a-bhinat*) and the one without the nasal affix (e.g., *bhet* – later, *a-bhet*), were grammaticalized as imperfect and (root) aorist, respectively.
- **The presence of the root aorist does not depend on a special affinity of the aorist category with telic roots but is a consequence of the grammaticalization of the characterized (nasal) present.**
- **It is not surprising, then, that atelic roots may yield root aorist: the key feature is that the corresponding present is grammaticalized with a different stem.**

## *Aorist/Imperfect \_The Aspectual Hypothesis\_ Evidence from Vedic*

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### Nasal presents of change of state / -ya- presents

→ “causative/anticausative” alternation (cf. Haspelmath 1987, 1993; Levin & Rappaport Hovav 1995: 79-133; Kulikov 1998, 2012; Lazzeroni 2004):

*kṣinā́ti* “destroy” vs. *kṣī́yāte* “perish”;

*bhinā́ti* “split (tr.)” vs. *bhidyáte* “split (intr.)”;

*pṛṇā́ti* “fill up” vs. *pū́ryāte* “become full”;

*chinā́ti* “cut off, break (tr.)” vs. *chidyā́te* “break (intr.), is cut off”,

etc.

→ Vedic root presents belong to verbs that cannot produce the causative/anticausative alternation because of:

1. the lack of a change of state component (e.g., *i-* “go” and *as-* “be”, etc.)
2. the presence of agent-oriented components (e.g., *duh-* “milk”, and the above mentioned *han-* “kill, beat” and *sū-* “give birth to”, etc.)



- The **root present** is a residual present proper to the verbal roots that cannot produce the causative/anticausative alternation; this is the reason why this present type more frequently (and prototypically) belongs to atelic verbs, whose actional properties are incompatible with the nasal infixation (as well as to more or less telic verbs with agent-oriented semantic components)
- The **root aorist** is a residual injunctive that was refunctionalized as an aorist when a characterized nasal present was formed from highly telic verbal roots; this is the reason why the root aorist has a paradigmatic relationship with the nasal present
- **The presence of a root aorist does not correspond to a category selection based on an alignment of telicity with perfective aspect but is a consequence of the grammaticalization of present in telic roots of change of state: the residual injunctives refunctionalized as aorists denote telic events because the verbal roots that constitute the prototype of the nasal presents have telic meaning.**

## *Aorist/Imperfect\_The Aspectual Hypothesis\_Evidence from Vedic*

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No functional distinction and no relation to the degree of telicity of the verb:

- *áva tmánā dhṛśatā śámbaram bhinat* (RV I, 54, 4)

“by yourself, in your daring, you cut down (*bhinat* = **imperfect**) Śambara”

- *áva tmánā bṛhatāḥ śámbaram bhet* (RV VII, 18, 20)

“you cut down (*bhet* = **aorist**) Śambara from the lofty (mountain) by yourself”

→ *bhinat* and *bhet* express «precisely the same idea. It would be pedantry to try to find any real difference here» (Bloomfield & Edgerton 1930: 134)

- *utó ghā té puruṣyā id āsan yéśām pūrveṣām áśṛṇor ṛṣīṇām* (RV VII, 29, 4)

“They too were just men—those earlier seers you listened to (*áśṛṇos* = **imperfect**)”

- *vásiṣṭhasya stuvatá indro aśrod urúṃ tṛtsubhyo akṛṇod ulokám* (RV VII, 33, 5)

“Indra hearkened to (*aśrot* = **aorist**) Vasiṣṭha as he was praising; he made the broad space broad for the Tṛtsus”

→ RV II, 12, 1–4; RV II, 37, 1; RV II, 37, 4; RV IX, 92, 1; RV X, 85, 41, etc.

**Vedic data, when accounted for from a diachronic and typological perspective, do not provide clear evidence on the idea that the principle underlying the distribution of aorist and imperfect was originally based on an alignment of the telic/atelic distinction with the perfective/imperfective distinction.**

## *Aorist/Imperfect \_The Aspectual Hypothesis \_Evidence from Homeric Greek*

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- The aspectual variation cannot consistently account for the alternation between imperfect and aorist indicative in Homeric Greek: e.g., Il. II, 41 ff.; Il. IV, 529-531; Il. V, 363 ff.; Il. X, 571 ff.; Od. IV, 242 ff.; Od. III, 436 ff.; Od. V, 226, ff.; etc.

- «Le passage de l'aoriste à l'imparfait peut parfois surprendre» (Chantraine 1953: 194; see also Schwyzer and Debrunner 1950: 277-279, Crespo 1992: 16 ff.)

- Long and frequent descriptions of events, in which aorist and imperfect forms alternate with no clear distinction on aspectual grounds

→ **The activity/active accomplishment verbs as a test case** (Van Valin 2005: 32 ff.; see also Vendler 1967; Dowty 1979: 51 ff.; Van Valin & LaPolla 1997: 100 ff.)

Data set: λούω “wash”, νίζω “wash”, πίνω “drink”, ἔλκω “draw, drag”, πίμπλημι “fill”, θύω “sacrifice, offer sacrifice (by burning)”

→ **No clear evidence on an aspectually-based alternation between imperfect and aorist indicative**

→ On other verb types, cf. Senaldi (2013), Sesoldi (2019)

imperfect ἔλκων (33x)

**telic and imperfective**

αὐτὰρ ὅτ' ἐς νῆας τε ἴδοι καὶ λαὸν Ἀχαιῶν,  
πολλὰς ἐκ κεφαλῆς προθελύμνους ἔλκετο χαίτας  
ὑψόθ' ἐόντι Δίι, μέγα δ' ἔστενε κυδάλιμον κῆρ (Il. X, 15-16)

“but when he looked toward the ships and the army of the Achaeans, then many hairs he pulled from his head by the very roots in appeal to Zeus who is above, and in his noble heart he groaned mightily” (Murray)

**telic and perfective**

αὐτίκα δ' ἐκ ζωστήηρος ἀρηρότος ἔλκεν οἴστον (Il. IV, 213)

“and immediately drew out the arrow from the clasped belt” (Murray)

**atelic and imperfective**

[. . .] ταχέες δέ μιν ἵπποι  
ἔλκων ἀκηδέστως κοίλας ἐπὶ νῆας Ἀχαιῶν. (Il. XXII, 464-465)

“and swift horses were dragging him ruthlessly toward the hollow ships of the Achaeans” (Murray)

imperfect ἔλκων (33x)

**atelic and perfective**

τὸν δὲ πεσόντα ποδῶν ἔλαβε κρείων Ἐλεφήνωρ  
Χαλκωδοντιάδης, μεγαθύμων ἀρχὸς Ἀβάντων,  
ἔλκε δ' ὑπέκ βελέων, λελιημένος ὄφρα τάχιστα  
τεύχεα συλήσειε· μίνυνθα δέ οἱ γένεθ' ὀρμή.  
νεκρὸν γὰρ ἐρύοντα ἰδὼν μεγάθυμος Ἀγήνωρ  
πλευρά, τὰ οἱ κύψαντι παρ' ἀσπίδος ἐξεφαάνθη,  
οὔτησε ξυστῶ χαλκήρεϊ, λῦσε δὲ γυῖα. (Il. IV, 463-469)

“As he fell lord Elephenor caught him by the feet, the son of Chalcodon and leader of the great-hearted Abantes, and tried to drag him from beneath the missiles, eager with all speed to strip off his armor; yet only a short while did his striving last; for as he was dragging the corpse greathearted Agenor caught sight of him, and where his side was left uncovered by his shield as he stooped, there he struck him with a thrust of his bronze-tipped spear, and loosed his limbs” (Murray)

The intransitive root aorist forms πλήτο and πλήντο (9x, cf. Sanskrit *aprāt*, from *prā-* “fill”) may be associated with a more or less telic interpretation of the event, independently of aspectual distinctions:

### **atelic and imperfective**

ὥς δ' ὄθ' ὑπὸ ῥιπῆς πυρὸς ἀκρίδες ἠερέθονται  
φευγέμεναι ποταμόνδε· τὸ δὲ φλέγει ἀκάματον πῦρ  
ὄρμενον ἐξαίφνης, ταὶ δὲ πτώσσουσι καθ' ὕδωρ·  
ὥς ὑπ' Ἀχιλλῆος Ξάνθου βαθυδινήεντος  
**πλήτο** ῥόος κελάδων ἐπιμιξ ἵππων τε καὶ ἀνδρῶν. (Il. XXI, 12-16)

“And as in the presence of the onrush of fire locusts take wing to flee to a river, and the unwearied fire burns them as it comes on suddenly, and they cower down into the water; so in the presence of Achilles was the sounding stream of deep-eddying Xanthus filling with chariots and men in confusion.”

λούω “wash”

**telic event and perfective aspect**

→ imperfect

ἀλλ’ ὅτε δὴ μιν ἐγὼ **λόεον** καὶ χρῖον ἐλαίῳ,  
ἀμφὶ δὲ εἵματα ἔσσα καὶ ὄμοσα καρτερὸν ὄρκον,  
[. . .]

καὶ τότε δὴ μοι πάντα νόον κατέλεξεν Ἀχαιῶν. (Od. IV, 252-256)

“But when I bathed him and anointed him with oil, and put clothes upon him and swore a mighty oath, [. . .] then at last he told me all the purpose of the Achaeans”

→ aorist

τὸν δ’ Ἥβη **λοῦσεν**, χαρίεντα δὲ εἵματα ἔσσε·  
παρ δὲ Διὶ Κρονίῳ καθέζετο κύδει γαίῳ. (Il. V, 905-906)

“And Hebe bathed him, and clad him in beautiful clothes, and he sat down by the side of Zeus, son of Cronos, exulting in his glory” (Murray)



*Aorist/Imperfect in ancient Greek and Vedic\_Temporal vs. Aspectual distinctions*

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Pāṇini: **aorist** *adyatane* “pertaining to the present day” (that is, referring to an immediate past event with present day time reference) vs. **imperfect** *anadyatane* “not pertaining to the present day” (that is, expressing remote past, with no present-day time reference).

→ **“Remoteness Hypothesis”** (Delbrück 1876: 86 ff., 1888: 273-301; 1897: 260-306. See also Whitney 1892; Macdonell 1916: 365; Hoffmann 1967: 145-160; Tichy 1997: 591-602).

The distribution of aorist and imperfect in the Rig Veda shows that the aorist is primarily (but not exclusively) found in proximate past contexts, whereas the imperfect is primarily (but not exclusively) found in remote past contexts.

Aorist/imperfect: typologically natural hodiernal/non hodiernal past distinction, in Östen Dahl’s terms (“not more than one day away”/“more than one day away”: Dahl 1985: 425)

## *Aorist/Imperfect in ancient Greek and Vedic\_Temporal vs. Aspectual distinctions*

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### Remoteness function of the imperfect

*nāśad āsīn nó sád āsīt tadānīm nāsīd rájo nó vyòmā paró yát* (RV X, 129, 1)

“The nonexistent did not exist, nor did the existent exist at that time. There existed neither the airy space nor heaven beyond”.

*kāmas tát ágre sámavartatādhi mánaso rétaḥ prathamám yád āsīt  
sató bándhum ásati nír avindan ḥṛdí pratīṣyā kaváyo maniṣā* (RV X, 129, 4)

“Then, in the beginning, from thought there evolved desire, which existed as the primal semen. Searching in their hearts through inspired thought, poets found the connection of the existent in the nonexistent”

### Immediate past function of the aorist

*saṃvatsará idám adyā vy ákhyata* (RV I, 161, 13)

“Here today, after a year, you opened your eyes”

**→ Aorist: from immediate past to relative past**

The immediate past typically entails the representation of an event immediately anterior (or pertaining to) the speaker's time reference: the use of the aorist to express the immediate past relative to a present time reference (which presumably corresponds to its prototypical use in relative past contexts) must have extended to contexts of immediate past relative to a past or future time reference.

## *Aorist/Imperfect in ancient Greek and Vedic\_Temporal vs. Aspectual distinctions*

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### The relative past function of the aorist:

*yád īm índram śámyṛkvāna **áśatā**d in nāmāni yajñīyāni dadhire* (RV I, 87, 5)

“When, equipped with chant, they [= Maruts] reached [*áśata* = aorist] Indra by their labor, just after that they acquired [*dadhire* = perfect] names worthy of the sacrifice”

αὐτὰρ ἐπεὶ **σπεῖσάν** τ' **ἔπιόν** θ' ὅσον ἤθελε θυμός,  
ὀρμῶντ' ἐκ κλισίης Ἀγαμέμνονος Ἀτρεΐδαο (Il. IX, 176-178)

“But when they had poured libations and had drunk to their hearts' content, they started out from the hut of Agamemnon, son of Atreus”

*Aorist/Imperfect in ancient Greek and Vedic\_Temporal vs. Aspectual distinctions*

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→ From immediate past to relative past: inherited perfectivity of the aorist? NO!

If the opposition between aorist and imperfect is a consequence of the acquisition of the morphological expression of tense, **aorist and imperfect could not encode aspectual distinctions before being involved in temporal distinctions.**

The relationship between the proximate/relative past function and the perfective function of the aorist should, then, be reversed. Since the expression of the (proximate) relative past, that is of an event anterior to another event, typically requires a complete representation of the event, that is a perfective viewpoint on it, **the perfective aspect of the aorist may be an epiphenomenon of its proximate and relative past function.**

## *Aorist/Imperfect in ancient Greek and Vedic\_Conclusions*

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- The principle underlying the opposition between aorist and imperfect was not originally based on an alignment of the telic/atelic distinction with the perfective/imperfective distinction: rather, the interaction between aspect and actionality in the development of the opposition between aorist and imperfect was consequent to the creation of characterized presents from telic roots (whose non-characterized root injunctive was refunctionalized as an aorist).
- The prevalent use of the aorist in contexts that are typically (but not exclusively) associated with perfective aspect is not the consequence of an inherited aspectual feature; rather, it arises from specific temporal values taken by the aorist, as opposed to the imperfect, in the gradual differentiation between the two categories.
- The aspectual hypothesis cannot consistently account for the functions and the distribution of aorist and imperfect in Vedic and Homeric Greek. Rather, Rig Vedic and Homeric data reveal that their aspectual functions were not yet grammaticalized in an archaic phase of the Vedic and Greek verb system and, therefore, cannot be attributed to the Indo-European tradition passed on into the Vedic and Greek verb system.

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## **Digital corpora**

DCS - Digital Corpus of Sanskrit (<http://www.sanskrit-linguistics.org>)

TITUS - Thesaurus Indogermanischer Text- und Sprachmaterialien (<http://titus.uni-frankfurt.de>)

TLG - Thesaurus Linguae Graecae (<http://stephanus.tlg.uci.edu>)



# Thanks!

