

George Hinge: The PIE essive and fientive in Greek

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A. The fientive and essive according to HARðARSON (1993)

	fientive *-eh _i -	essive *-h _i ie-
Indo-Iranian	*d ^h g ^w h-éh _i - > *kṣā- => Skt kṣāyat ‘burning’	*klu-h _i ié- > Skt. śrūyáte, Av. sruiata ‘is heard’
Balto-Slavic	*b ^h ud ^h -éh _i - > OCS būdě ‘woke up’	*b ^h ud ^h -h _i ié- > Lith. budžiu, OCS būždo ‘am awake’
Italic		*pth ₂ k-h _i ié- > L taceō ‘be silent’
Germanic		*pth ₂ k-h _i ié- > *pagai-/ja- > OHG dagēn, ON þegja ‘be silent’
Tocharian		*uh ₂ g-h _i ié- > *wake ₂ - > B wokontär ‘breaks (intr.)’
Albanian	*pHs-éh _i - > paa ‘saw’	
Armenian	*pth ₂ k-éh _i - > *t'ak'ea ‘hid (intr.)’	*mn-h _i ié- > *mna(j)e- > mnām ‘remain’
Greek	*d ^h rub ^h -éh _i - > ἐτρύφην, ἔθρυφθην ‘be broken’	*d ^h ṛs-h _i ié- > θαρσέω ‘am confident’

This reconstruction, which has been canonised in the *LIV*² (see Table III), is compromised by the fact that Greek has no examples of a root having both an -ην aorist and an -έω present. Furthermore, the phonology of the Latin and Germanic forms are problematic (in an unstressed syllable, *H* normally becomes *a* in Latin and disappears in Germanic).

B. The stative according to RUIJGH (2004)

	stative *-eh _i -	telic stative *-eh _i s-
Hittite		*h ₂ erg-éh _i s- > ḥar-ki-iš-zi ‘becomes white’
Italic	*h ₁ rud ^h -éh _i - => *h ₁ rud ^h -éh _i -ie- > L rubeō ‘be red’	*h ₁ rud ^h -éh _i -ske- > L rubēscō ‘become red’
Germanic	*kh ₂ p-éh _i - => *kh ₂ p-h _i ié- > *habai- > OHG habēn ‘have’	
Greek	*d ^h ṛs-éh _i - > *t ^h arsēmi => θαρσέω ‘be confident’	*d ^h ṛs-éh _i s- > *t ^h arsēha => ἐθάρσησα ‘became confident’ *ph ₂ g-éh _i s- > *pagēha => ἐπάγην ‘stuck’

In this reconstruction, once again, the lack of -έω presents corresponding to an -ην aorist is suspicious. Besides, there are no indications of a contraction in the passive conjugation: The 1. person singular of the preterit (the only finite form liable to a contraction) is not particularly frequent in Homer, but the participle is extremely popular, and we have no signs of an earlier **-θεάς, **-θεάντ-. What is more, the present of the -έω statives seems to be secondary in comparison with the sigmatic aorist (see WATKINS (1973) and TUCKER (1990) and Table II).

C. A combined scenario

	essive -h _i -ie-	fientive / stative *-eh _i -	telic stative *-eh _i s-
Hittite			*h ₂ erg-éh _i s- > ḥar-ki-iš-zi
Indo-Iranian	*klu-h _i ié- > Skt. śrūyáte, Av. sruiata	*d ^h g ^w h-éh _i - => *-éh _i -ie- > Skt kṣāyat	
Balto-Slavic	*b ^h ud ^h -h _i ié- > Lith. budžiu, OCS būdě	*b ^h ud ^h -éh _i - > OCS būdě	
Italic		*pth ₂ k-éh _i - > taceō -ēs	
Germanic	*pth ₂ k-h _i ié- > ON þegja	*h ₁ rud ^h -éh _i - > L rubeō -ēs	*h ₁ rud ^h -éh _i -ske- > L rubēscō
Armenian	*mn-h _i ié- > *mna(j)e- > mnām	*pth ₂ k-éh _i - => *pagai- > OHG dagēm -ēs	
Greek	*d ^h rub ^h -h _i ie- > θρύπτω	*pth ₂ k-éh _i - => t'ak'ea *d ^h ṛs-éh _i - > *t ^h arsēmi => θαρσέω	*d ^h ṛs-éh _i s- > *t ^h arsēha => ἐθάρσησα

Referring to a possibly regular loss of a laryngeal before *i* (PINault (1982)), RASMUSSEN (1993) and, independently, HINGE (2007) argue that the direct continuation of the essive is to be found, not in the -έω conjugation, but in the numerous *i*-presents. Thus, μαίνομαι (*mn-h_iió-h₂) and χαίρω (*g^hr-h_iió-h₂) are simply the essives derived from the fientives ἔμαντν (*mn-éh_i--m) and ἔχαρην (*g^hr-éh_i-m). This reconstruction finds support in the fact that the -(θ)ην aorists are very often accompanied by imperfective stems exhibiting a zero grade of the root and the former presence of a **i*. Table I shows an extensive (but anything but complete) list of Greek *i*-presents with corresponding ē-aorists.

Laryngeal loss before *i*

PIE *H* > Gk Ø / C _ *i*, R _ *i*

- *m^hh₂-iós- > μέζων ‘larger’ (:μέγας, Skt. mahā-), cf. L *major*, *magis*
 - *sm^h-sok^w-h₂i-o- > ἀσσοτήρ ‘assistant’ (: Skt. sakhaī- ‘friend’), cf. L *socius* ‘partner’, Skt. sakhyā-, sakhiā- ‘friendship’
 - *uerh_i-ie- > εἴρω ‘say’ (: εἴρημα), cf. Hitt. weriyezzi ‘shouts’
- but:
- *h₂(e)rh₃-ie- > ἀρόω, *h₂(e)lh₂-ie- > ἀλάομαι, *h₂(e)rh_i-ie- > ἀλέω, *h_i(e)rh₂-ie- > ἐλάω, *uemh_i-ie- > ἐμέω, *h_i(e)rh_i-ie- > ἐρέω: *H* > V / #HR _ *i* ?
 - *dh_i-ie- [Skt. dyáti] > δέω, *srh₂-ie- [Hitt. šarhie-] > φώομαι, *sph₂-ie- > σπάω, *skh₂-ie- [Skt. -chyáti] > σχά(ζ)ω: *H* > V / #(s)C _ *i*, #(s)R _ *i* ?

Intransitive and transitive *i*-presents

Most of the *i*-presents in Table I are transitive, whereas the essive was normally intransitive. There are some intransitive verbs among them, both a few active ones (βαίνω, θάλλω, κλαίω, πταίρω, χαίρω) and several in the middle or the passive (ἀγάλλομαι, ἀλάομαι, ἀτύζομαι, ἔζομαι, θρύπτομαι, θωρήσσομαι, μαίνομαι, ναίομαι, νίζομαι, (ό)δύρομαι, πτύρομαι,

φαίνομαι, φύομαι, χρίμπτομαι). What is more, some of the transitive verbs may occur with an intransitive meaning in the active (ἀγγέλλω, βάπτω, τείνω), and most of them have middle forms with an intransitive or patientive meaning.

One may therefore hypothesise that many of the imperfective stems given in the list were in fact originally intransitive, but later a transitive meaning was associated with the active endings, e.g. **s̥k̥hid-h_iiō-h_i* ‘fall apart’ [Skt. *chidyate, chidyáte*] > Gk σχίζομαι ‘id. (intrans.)’ ~ σχίζω ‘split, divide (trans.)’ (a similar development is seen in **vid-eh_i-t* > L *vidētur* ‘seems’ ~ *videt* ‘sees’, cf. GARCÍA-RAMÓN (1993)). Often this re-interpreted *i*-present has replaced a more complicated formation (cf. **s̥k̥hi-né-d-mi* > Skt. *chinátti*, L *scindō*) or even a causative (e.g. κτίζω ‘settle’ < **t̥ki-h_iiō-h₂* instead of **κτοέω < **t̥koj-éjo-h₂*).

The essive normally exhibits the zero grade of the root syllable. Accordingly, the *e*-grade formations cannot be original essives, e.g. ἀγείρω, ἐγείρω, εἴρω, ἐμέω, κείρω, πείρω, σπείρω, στέλλω (not ἔζομαι, πέσσω). However, it is my immediate impression (which must be quantified later) that *e*-grade presents are accompanied by a passive less frequently than zero-grade presents. Furthermore, it turns out that half of the *e*-grade presents of my sample have zero-grade variants: ἀείρω ~ αἴρω, δέρω / δείρω ~ δαίρω, ἔρδω / ρέζω ~ wo-ze, κτείνω (κτείνυμι) ~ καίνω, τείνω ~ τιταίνω, φθείρω ~ φθαίρω. The co-existence of both variants may be a testimony to an earlier phase when the different ablaut was associated with different functions (PGk **awerjō* ‘hang (tr.)’ ~ **warjomai* ‘hang (intr.)’ < **h₂uṛh_i.ioh₂*; for the laryngeal loss, cf. HINGE (2007), where this word is analysed differently, though).

The distribution of -η- and -θη-

Table IV gives all examples of ē-aorists found in the Homeric corpus listed according to the final consonant of the root and the suffix of the corresponding present. The material invites to the following conclusions:

1. -η- is restricted to monosyllabic roots (in Homer, but not in subsequent authors)
2. all derived roots have -θη-
3. all roots ending in a dental have -θη-
4. all roots ending a laryngeal have -θη- (except δάμη besides ἔδμήθη, δαμάσθη)
5. all roots ending in a velar with a -i- present have -θη- (except πλήγη)
6. in all other contexts -η- and -θη- occur side by side

Thus, -η- is residuary, and -θη- spread via certain derivational types. The core field of this formation is the roots ending in a laryngeal and, secondarily, the verbs with a present in -σσ- (-ττ-) and -ζ-.

The origin of -θη-

Classical hypotheses:

- a) LORENTZ (1894) derives the -θη- passive from a compound with the verb **d^heh_i*- like with the Germanic weak preterit: e.g. ἐτιμή-θην = τιμήν ἔθηκα. But: it is more probable that such forms would be transitive (like in Germanic).
- b) WACKERNAGEL (1890) and SCHWYZER (1939) suppose that -θη- arose in a false analysis of an old aorist middle like **éstā-t^hēs* ‘you were put’ (= Skt. *ásthithās*). But: there are no traces of this second-person suffix in Greek, and it is more likely that the PIE form was *-th₂ó (cf. Hitt. -ta).
- c) CHANTRAINE (1961) derives -θ- from the aorist suffix *-d^h- in forms like *ξσχεθον*. But: these forms are transitive, and the suffix had a different form (*-ed^h-e- : *-d^h-eh_i-).
- d) RISCH (1979) suggests an extraction of the -θ- in verbs like *πῦθεται*. But: none of the verb stems ending in -θ- has an extant passive in -θ-η- (some of them have -σ-θη-), and the root normally exhibit a different ablaut.
- e) RUIJGH (2004) argues that the -θη- spread from ἐστάθην, where it was introduced, on the basis of the stem **sth₂-(e)d^h*-, in order to clarify the ambiguous form **stām* < **sth₂-éh_i-m* (e.g. Dan. *stå*). But: **sth₂-éh_i-m* has a perfect continuation in the non-ablauting *ἔστην* ‘I stood’ and did not need any clarification.

Of these theories, d) has the advantage that it takes into account the place of origin of the innovation, namely the stems ending in a laryngeal, and it is supported by the actual co-existence of the stems **steh₂-* and **sth₂d^h-* in Gk (cf. σταθ-μός, σταθ-ερός, εὐ-σταθ-ής) and other IE languages. Yet, a) also deserves consideration because of the close functional affinity of the aorist middle and the aorist passive.

The two theses may, therefore, be combined: The existence of an aorist middle *-t^hó in early PGk may have contributed to the association of -t^h- with the patientive meaning. After the introduction of the thematic middle endings *-mān, *-hō, *-tō into the athematic paradigms, it is conceivable that the 3rd person was specialised into a middle *-t^hó and a passive *-tō, too, analogically after the middle *-t^hó and passive *-só of the 2nd person. Eventually, this telic passive of the laryngeal stems was clarified with the addition of the suffix of the telic passive of the consonantal stems: *sta-t^h-ē, and, conversely, the -t^h- spread to the other consonant stems.

Ruijgh supposes that **stat^h-ē* was the model for all other -θη- passives, and the corresponding noun **stat^hmós* was the model for the many other abstracts in -θμός (like τεθμός (θεσμός), ῥυθμός, ἐλκηθμός, etc.). Yet, if one accepts that the -θ- of the passive came from the middle endings of the laryngeal stems instead, the influence may have worked the other way around. The existence of this passive stem favoured the spread of -θ- into related nominal formations as well. Thus, σταθερός and εὐσταθής may have replaced the awkward forms **starós* (Skt. *sthirá-*) and *-staēs (given that the Caland suffixes -ro- and -es-alternate with the stative suffix, cf. TUCKER (1990)).

Table I: Coexistence of *i*-present and *ē*-aorist

j-present	aorist -η-	aorist -θη-	meaning	PIE
ἀγάλλομαι (or *-ln-)		ἡγάλθην Hell.	'glory, exult'	*h₂g-l-?
ἀγγέλλω	ἥγγέλην trag.+	ἡγγέλθην Hdt.+	'bear a message'	*h₂ngel-?
ἀγείρω		ἡγέρθην Hom.+	'gather'	*h₂ger-
ἀείρω, αἴρω		ἡέρθην, ἡρθην Hom.+	'lift, take up'	*h₂uer-
ἀίσσω		ᾴχθην Hom.	'dart'	*h₂eūer-
ἀλάομαι		ἡλάθην Hom.+	'wander'	*h₂elh₂-
ἀλέω		ἡλέσθην Hell.	'grind'	*h₂elh₁-
ἀλλάσσω	ἥλλαγην Thuc.+	ἡλλάχθην trag.+	'change'	*h₂eli-eh₂k-?
ἀμύσσω		ἀμυχθείς Agath.	'tear'	*h₂muk-?
ἄπτω		ῆφθην Hdt.+	'grasp, set on fire'	*seh₂bh-?
ἀράσσω		ῆράχθην Hom.	'crush'	*ureh₂gʰ-?
ἄρμόσσω / -ζω		ῆρμόσθην Plt.+	'fit together, join'	*h₂er-mṇt-
ἀρόω		ῆρόθην trag.	'plough, till'	*h₂erh₃-
ἀρπάζω	ἥρπαγην Hell.	ἥρπάσθην, ἥρπάχθην Hdt.+	'carry off'	*serp-eh₂-
ἀτύζομαι		ἄτυχθεις Hom.+	'be bewildered'	*h₂teug-
βαίνω		ἔβαθην Thuc., ἔβάνθην Hell.	'walk, step'	*gʷem-
βάλλω (or *-ln-)		ἔβλήθην Hdt.+	'throw'	*gʷelh₁-
βάπτω	ἔβάφην Plt.+	ἔβάφθην Hell.	'dip, sink'	*gʷeh₂bʰ-
βλάπτω	ἔβλάβην Hom.+	ἔβλάφθην Hom.+	'hinder, hurt'	*mlekʷ-
γνάμπτω		ἔγνάμφην Hom.+	'bend'	*gnamp-?
δαίω	ἔδάην Hom., Lac.	ἔδαίσθην? Eur.	'burn'	*deh₂u-
δαμάζω	ἔδάμην Hom.+	ἔδαμάσθην, ἔδμήθην Hom.+	'subdue'	*demh₂-
δέρω, δαίρω v.l., δείρω Hdt.	ἔδάρην Hdt.+	ἔδαρθην Nicoch.	'skin, flay'	*der-
δέω		ἔδέθην Dem.	'bind, tie'	*deh₁-
δράω		ἔδράσθην Thuc.+	'do'	*dreh₂-
δρύπτω		ἔδρύφθην Hom.+	'tear'	*dʰreubʰ-?
ἐγείρω		ῆγέρθην Hdt.+	'awaken'	*h₁ger-
ἔζομαι		ῆσθην Soph.+	'seat oneself, sit'	*sed-
εἴρω		ἔρρήθην Hom.+	'say, tell'	*uerh₁-
ἔλάω (>: ἐλαύνω)		ῆλάθην trag., ἦλάσθην Hell.	'drive, carry off'	*h₁elh₂-
ἔλισσω, ἐλελίζω		εἰλίχθην, ἥλιλίχθην Hom.+	'turn round'	*uel-ik-?
ἔμεω		ἥμεθην Gal.	'vomit'	*uemh₁-
ἔρδω, ρέζω, wo-ze Myc.	wo-ke? Myc.	ῥεχθείς Hom., ἐρχθείς Bacch.	'do'	*uerğ-
Θάλλω (or *-ln-)	Θαλήσομαι Hell.	ἐθάφθην Hdt.	'sprout, grow'	*dʰelH-
Θάπτω	ἐτάφην Att.	ἐθρύφθην Att.	'bury'	*dʰembʰ-
Θρύπτομαι	ἐτρύφην Hom., ἐθρύβην late	ἐθωρίχθην Hom.+	'be broken'	*dʰreubʰ-
Θωρήσομαι		ἐκάμφην Aesch.+	'arm oneself'	loanword
κάμπτω		ἐκαύθην Hdt.+	'bend'	*kamp-?
καίω		ἐκαύθην Hom.+	'burn'	*keh₂u-
καλύπτω	ἐκαλύψην late	ἐκέρθην (v.l. -ά-) Pind.	'cover'	*klH-ubʰ-?
κείρω	ἐκάρην Hdt.+	ἐκέρθην Hell.	'cut, shear'	*ker-
κλαίω		ἐκλάσθην Hom.+	'cry'	*kleh₂u-
κλάω		ἐκλί(ν)θην Hom.+	'break off'	*kleh₂-
κλίνω	ἐκλίνην Ar.+	ἐκλί(ν)θην Hom.+	'make to lean'	*klei-
κνίζω		ἐκνίσθην Eur.+	'scratch, tickle'	*kneid-
κόπτω	ἐκόπην Aesch.+		'smite'	*keh₂p?
κρ(ᾶ)αίνω		ἐκρ(ᾶ)άνθην Pind.+	'accomplish'	*krh₂-nH-
κρίνω		ἐκρ(ῖ)νθην Hom.+	'separate, choose'	*kreh₁-i-
κρύπτω	ἐκρύφην Soph.	ἐκρύφθην Hom.+	'hide'	*kru-bʰ-
κτείνω, καίνω	ἐκτάνην Gal.	ἐκτάθην Hom.+	'kill'	*tken-
κτίζω		ἐκτίσθην Thuc.+	'people, found'	*tkei-
λάζομαι (>: λαμβάνω)		ἐλά(μ)φθην Ion.	'seize, grasp'	*sleh₂gʷ-
μαίνομαι	ἐμάνην Hdt.+		'rage'	*men-
μαραίνω		ἐμαράνθην Hom.+	'waste', pass. 'die out'	*merh₂-
μάσσω	ἐμάγην Plt.+	ἐμάχθην Hell.	'knead'	*maǵ-
μιάνω	? μιᾶ Cyr.	ἐμιάνθην Hom.+	'stain, defile'	*mih₂-nH-?
ναίομαι		ἐνάσθην Hom.+	'live'	*nes-
νίζομαι		ἐνίφθην Hipp.	'bath'	*neigʷ-
νύσσω		ἐνύχθην Hell.	'prick, pierce'	*nu-g-?
ξαίνω		ἐξάνθην Aesch.?	'comb, card'	*ksen-
ξῦω		ἐξύθην Arist.+	'scratch'	*kseu-
(ό)δύρομαι		ώδύρθην Plut.	'lament, bewail'	*h₁d-uy-
όρινω		ώρινθην Hom.+	'stir'	*h₂reiH-
όρύσσω	ώρυγην Xen.+	ώρυχθην Hdt.+	'dig'	*h₃reuk-
παίω		ἐπαίσθην Aesch.+	'strike, smite'	*pieh₂-
πάλλω (or *-ln-)	ἐπάλην Hell.	ἐπάσθην Plt.	'sway'	*pelh₁-
πάσσω		ἐπατάχθην Hell.	'sprinkle'	*kueh₁-t-
πατάσσω			'beat'	*pataq-?
πείρω	ἐπάρην Hdt.		'pierce'	*per-
πέσσω, πέπτω Arist.+		ἐπέφθην Arist.+	'soften, ripen' digest'	*pekʷ-
πλάζω		ἐπλάγχθην Hom.+	'turn away from'	*pleh₂g-

j-present	aorist -η-	aorist -θη-	meaning	PIE
πλάσσω	ἐπλίγην Hom.+, ἐπλάγην Att.	ἐπλάσθην trag.+	'form, mould'	*plh₂-d-
πλήσσω		ἐπλίχθην trag.+	'strike, smite'	*pleh₂g-
πλύνω		ἐπλύθην Theophr.+	'wash'	*pleu-
πρᾶσσω		ἐπρᾶχθην Soph.+	'do, act'	*preh₂-k-
πταίρω (>: πτάρνυμαι)		πταρεῖς Hipp.+	'sneeze'	*pster-
πταίω		ἐπταίσθην Plut.+	'cause to stumble'	*pieh₂-
πτέρομαι	ἐπτύρην Plt.+		'be scared'	?
πτύσσω	ἐπτύγην Hipp.+	ἐπτύχθην Hom.+	'fold'	*pieukʰ-?
πτύω	πτυεῖς Hipp.+	ἐπτύσθην Hipp.+	'spit out'	*sptieuH-
ράινω		ἐρράνθην Pind.+	'sprinkle'	*h₂uer-
ράπτω		ἐρράφην Dem.	'sew together'	*uerp-
ράσσω		ἐρράχθην Hell.	'strike'	*Hreh₂k-
ρήσσω Hipp.+ (>: ρήγνυμι)	ἐρράγην trag.+	ἐρρήχθην Hipp.+	'break'	*ureh₂g-
ρίπτω	ἐρρίφην trag.+	ἐρρίφθην trag.+	'throw'	*ureih₁-p-
σκάπτω	ἐσκάφην trag.+		'dig'	*skabʰ-
σκιμπτομαι		ἐσκίμφθην Hom.+		?
σκύλλω	ἐσκύλην late	ἐσκύλθην Hell.	'press'	*skelh₁-?
σπάω		ἐσπάσθην Hom.+	'maltreat'	*speh₂-
σπείρω	ἐσπάρην trag.+		'draw, tear'	*sper-
στάζω	ἐστάγην Diosc.Med.	ἐστάχθην Hipp.	'sow'	*steh₂g-
στέλλω	ἐστάλην Pind.+	ἐστάλθην Cret.	'drop, drip'	*stel-
στίζω		ἐστίχθην Hell.	'make ready, send'	
στρῶ	ἐσύρην Hell.		'tattoo'	*steig-
σφάζω	ἐσφάγην trag.+	ἐσφάραθην Pind.+	'draw, drag'	*t̄uer-?
σφάλλω	ἐσφάλην Alc.+	ἐσφάλθην Gal.	'slay, slaughter'	*sbʰh₂g-?
σχάω, σχάζω		ἐσχάσθην Hipp.+	'overthrow'	*sgʷeh₂l-
σχίζω		ἐσχίσθην Hom.+	'open'	*skeh₂(i)-
ταράσσω, θράσσω		ἐταράχθην Ar., ἐθράχθην Soph.	'split, divide'	*sk̄heid-
τάσσω	ἐτάγην Hell.	ἐτάχθην Aesch.+	'stir, disturb'	*dʰreh₂g-
τίλλω (or *-ln-)	ἐτίλην Hell.	ἐτίλθην Ar.	'array, post'	*the₂g-?
τινάσσω	ἐτινάγην Strb.	ἐτινάχθην Hom.+	'pluck'	*pil-?
τείνω, τιταίνω Hom.+		ἐτάθην Hom.+	'shake'	*tinag-?
τύπτω	ἐτύπην Hom.+	ἐτύφθην late	'stretch'	*ten-
φαίνομαι	ἐφάνην Hom.+	ἐφαάνθην Hom.+	'beat'	*teup-
φθείρω, φθαίρω Dor.	ἐφθάρην Pind.+	ἐφθέρθην Epich.	'appear'	*bʰeh₂n-
φράζω		ἐφράσθην Hom.+	'destroy'	*gʷʰher-
φράσσω	ἐφράγην late	ἐφράχθην Hom.+	'point out'	*bʰṛṇ-d?
φυλάσσω		ἐφυλάχθην Hell.	'fence in'	*bʰergh- / -kʷ-
φύρω	ἐφύρην Luc.+	ἐφύρθην Aesch.	'watch, guard'	?
φύνω, -ομαι, φύνω Alc., trag.	ἐφύτην Hipp.+	ἐφύθην Gal.	'mix'	*bʰerh₂-?
χαίρω	ἐχάρην Hom.+		'bring forth, grow'	*bʰuh₁-
χαράσσω		ἐχαράχθην Hell.	'rejoice'	*gʰer(h₂)-?
χρίμπτομαι		ἐχρίμφθην Hom.+	'sharpen'	*gʰrh₂-k-?
			'approach'	?

Table II: Denominal statives in -ē- in Homer

present -εω	future / aorist -ησ-	perfect -ηκα	meaning	noun	PIE
-	ἀβάκησσαν	-	'become speechless'	ἀβακής Sappho	*η- + ?
-	ἀδήσειν	ἀδηκότες	'be sated'	ἀδάνης Theogn. (v.l.)	*η- + *sueh₂d-?
-	ἀλγήσετε, -σας	-	'be afflicted with pain'	ἄλγος Hom.	*h₂leg-
-	ἀμέλησε	-	'be heedless, neglect'	ἀμελής Att.	*η- + *mel-
-	ἀνθῆσαι	-	'come into flower'	ἄνθος Hom.	*h₂endh-
-	ἀπιθήσω, ἀπίθησε etc.	-	'disobey'	ἀπιθήσης late, ἀπειθής Theogn.+	*η- + *bheidh-
-		βεβαρηότα, -ες	'be heavy'	βάρος Hdt.+, οίνοβαρής Hom.+	*gʷʰrH-
γηθεῖ etc.	γηθήσει, γήθησε etc.	-	'rejoice'	γῆθος Plut., γηθοσύνη Hom.	*geh₂dʰ-
-	ἐλείσει, ἐλένσα etc.	-	'pity'	ἔλεος NT, νηλεής Hom.	*h₁elh₁-
ἐθάμβεον	θάμβησε etc.	-	'be amazed'	θάμψος Hom.	*dʰembh-
Θάρσει, -ῶν	θάρσησε, -ήσας	τεθαρσήκασι	'be of good courage'	θάρσος Hom.	*dʰers-
Θήλεον	ἀναθηλήσει	-	'abound'	ἔρι-, νεοθηλής Hom.+	*dʰeh₂l-
-	κατήφησαν	-	'be despondent'	κατηφής Hom.	?
-	κηδήσοντες, -ήσαντε	-	'fail to take care'	κῆδος, ἀκηδής etc. Hom.	*keh₂d-
-	μείδησε etc.	-	'smile'	φιλομυειδής Hom.	*smeid-
-	μίσησεν	-	'hate, not tolerate'	μῖσος Att.	?
-	ώμηρησε	-	'meet'	ώμηρης Nic.	*sm̄- + *h₂er-
πενθείετον, -ημεναι	πενθῆσαι	-	'lament'	πένθος, πολυπενθής Hom.	*kʷendh-?
-	ρίγήσειν, ἐρρίγησε etc.	-	'be numb with fear'	ρίγος Hom.	*sreih₁g-?
ταρβεῖ etc.	τάρβησεν etc.	-	'be afraid'	τάρβος Hom.	*tergʷ-
-		τετευχῆσθαι	'be armed'	τεῦχος Hom.	*dʰeugʰ-

Table III: Fientive and essive in *LIV*²

root	fientive	essive	R(z)-ē	R(z)-je-	regular present
* <i>b^herg-</i>	OCS <i>būdě</i>	? OE <i>borgian</i> , OHG <i>borgēn</i> Lith <i>bužiù</i> , OCS <i>būždǫ</i> , TcB <i>pautotär</i> L <i>fulgeō</i> , TcB <i>pálketär</i>			(πυνθάνομαι)
* <i>b^heud-</i>		? Pol. <i>brzmię</i> L <i>debet</i> , Umb <i>tiçit</i>			(δέχομαι)
* <i>b^hrem-</i>		L <i>indulgeō</i> , MCym <i>deily</i>			(δέμω)
* <i>dek-</i>		TcB <i>tsmetär</i>			(δάμνημι)
* <i>delg̚h-</i>	? Hitt <i>dame-t-</i> , TcB <i>tsama</i>	Skt <i>dāmyata</i> , Olr <i>-daim</i>	ἐδάμην	δαμάζω	(δέρω)
^{1*} <i>demh₂</i>	G <i>ἔδαμην</i>	? TcB <i>tsretär</i>			
^{2*} <i>demh₂</i>		? Lith <i>drižiù</i>			
* <i>der-</i>		? OCS <i>družo</i>		δράσσομαι	(δράσσομαι)
* <i>dreg̚h-</i>	? OCS <i>drūža</i>				
* <i>dreg^h</i>	Skt <i>kṣayati</i>		ἐτάφην	θάπτω	(θάπτω)
^{2*} <i>d^hemb^h</i>	? G <i>ἔτάφην</i>	G θαρσέω	ἐθάρσησα		(θαρσέω)
* <i>d^hers-</i>	G <i>ἔτυχησα</i>		ἔτύχησα		(τυγχάνω)
* <i>d^heug^h</i>	? G <i>ἔτραφην</i>		ἐτράφην		(τρέφω)
* <i>d^hreb^h</i>	G <i>διατρυφέν</i>		διατρυφέν	θρύπτω	(θρύπτω)
* <i>d^hreub^h</i>		? Lith <i>dūsiù</i> , OCS <i>dyšo</i>			
* <i>d^hues-</i>		? Arm <i>kardam</i> , Lith <i>girdžiù</i>			
* <i>g^(w)erd^h</i>	? OCS <i>sū-zirjō</i>				
* <i>gerh₂</i>	Av <i>ā-γzādatiieiti</i> , G <i>ἔφθάρην</i>	TcB <i>kwremntär</i>	ἐφθάρην	φθαίρω	(γηράσκω)
* <i>g^wg^her-</i>	G <i>βιῶναι</i>	? Arm <i>keam</i>	ἐβίων		(φθείρω)
* <i>g^wehl₃</i>		? OHG <i>klebēn</i> , OCS <i>u-gliobljō</i>			(ζώω, βιόω)
* <i>gleib^h</i>		? Lith <i>guliù</i>			
^{2*} <i>guel-</i>		? ON <i>gana</i>			
* <i>g^han-</i>	? G <i>ἐχάρην</i>		ἐχάρην	χαίνω	(χάσκω)
^{1*} <i>g^her-</i>	OCS <i>-zūrē</i>			χαίρω	(χαίρω)
^{3*} <i>g^her-</i>		? Lith <i>žériù</i> , OCS <i>zūrjō</i>			
* <i>(g)heHb-</i>		? L <i>habeō</i>			
* <i>g^hlend^h</i>		? R <i>gljažú</i>			
* <i>g^hreib-</i>		? Latv <i>gribu</i>			
* <i>g^hrem-</i>	OCS <i>vūž-grūmě</i>	? Lith <i>grumiù</i> , OCS <i>-grūmljō</i>			
^{3*} <i>g^huen-</i>		? OCS <i>zvīnju</i>			
* <i>g^wher-</i>	G θερέω, OCS <i>grējō</i> , Alb <i>-grohet</i>	L <i>egeō</i>			(θέρομαι)
* <i>h₁e(g)H-</i>		L <i>āreō</i> , TcA <i>asatär</i>			
* <i>h₂eh₃s-</i>					
* <i>h₂eid-</i>	? Arm <i>aytč-i-</i>				(οιδέω)
* <i>h₂ek-</i>					
* <i>h₂el-</i>					
* <i>h₂el(g)h-</i>					
* <i>h₂end^h</i>	? G <i>ἡνθήσαι</i> ; Latv <i>susēt</i>	? L <i>aceō</i>	ἵνθησα		(ἀνθέω)
* <i>h₂eus-</i>		? L <i>adolēscō</i>			
^{2*} <i>kel-</i>		? L <i>algeō</i>			
* <i>keNs-</i>		? G <i>ἀνθέω</i>			
* <i>kes-</i>		L <i>caleō</i>			
* <i>kleus-</i>	G <i>ka-e-sa-me-no</i>	L <i>cēnseō</i>	ka-e-sa-me-no		
* <i>küeit-</i>		L <i>careō</i>			
* <i>keh₂p-</i>	? OCS <i>slyša</i>	? OHG <i>(h)losēn</i> , Latv <i>klusu</i> , OCS <i>slyšo</i>			
* <i>k^(w)erd-</i>	? Lith <i>švitéti</i> , OCS <i>-svítě</i>	? OCS <i>svištō</i>			
* <i>Kieh₂p-</i>		OHG <i>habēn</i>			
* <i>k^(w)lenk^(w)</i>	? OPrus. <i>kirdit</i>	? L <i>cubō</i> , <i>-āre</i>		κάπτω	(κάπτω)
* <i>Kneig^{wh}</i>					
* <i>kueh₂p-</i>	? G <i>σαπήη</i>	? OCS <i>klečō</i>	ἐσάπην		(σήπεται)
* <i>kueit-</i>		? OHG <i>(h)negēn</i>			
* <i>kuelp-</i>	? Lith <i>kūpu</i> , Latv <i>kūpu</i>	? OCS <i>kypljō</i>			
* <i>k^werph-</i>		? Latv <i>kvitu</i> , OCS <i>cvištō</i>			
* <i>leik-</i>		? ON <i>holfa</i>			
^{1*} <i>leip-</i>	OCS <i>lipē</i>	ON <i>horfa</i>			
* <i>leud-</i>		? L <i>liceō</i>			
* <i>mad-</i>		Go <i>liban</i> , OCS <i>lipljō</i> , TcB <i>lipetär</i>			
* <i>mag-</i>		? Lith <i>liūdžiù</i>			
^{1*} <i>med-</i>		L <i>madeō</i>			
^{2*} <i>med-</i>	G <i>ἐμάγη</i>		ἐμάγη	μάσσω	(μαδάω)
* <i>meig^(w)h-</i>					(μάσσω)
* <i>melk^(w)</i>					(μήδομαι, μέδω)
* <i>melk^w</i>	? OCS <i>mlūča</i>	? L <i>medeor</i>			
	G <i>ἔβλαβεν</i>	L <i>madeō</i>			
	G <i>ἔμάνην</i> , Lith <i>minéjau</i> , OCS <i>mīnēše</i>	OCz <i>mžím</i>			
	L <i>maneo</i>	? OCS <i>mlūčo</i>			
		Go <i>munan</i> , Lith <i>miniù</i> , OCS <i>mīnjo</i>			
		Arm <i>mnam</i>			
			ἐβλάβεν	βλάπτω	(βλάπτω)
			ἔμάνην	μαίνομαι	(μαίνομαι)

root	fientive	essive	R(z)-ē-	R(z)-je-	regular present
*men-		? L <i>ē-mineō</i> OCS <i>mūčo</i>			(ἀπομύσσομαι)
*meuk-				ἀπομύσσομαι	(ἀπομύσσομαι)
*peHs-	? Alb <i>pa</i> G ἐπάγη		ἐπάγη		(πήγνυμι)
*peh₂g̊-					
2*pei(ǵ)̄-		? L <i>piget</i> ? R <i>peržú</i> L <i>pateō</i>			(πέρδομαι)
*perd-					(πετάννυμι)
1*peth₂-					(πλάζω)
*pleh₂g-	G ἐπλίγην		ἐπλίγην, ἐπλάγχθην	πλάζω	
*pleh₃k-					
*pres-		? L <i>placeō</i> ? Czech <i>prším</i> L <i>taceō</i> , OHG <i>dagēn</i> ? Lith <i>regiù</i>			(πτώσσω) (ἀρχω)
*pteh₂k-	Arm <i>t'ak'eaw</i>				
*regh-					
(*h₁)reh₁s-	? Alb <i>ra</i>				
*rei(ǵ)̄-		? L <i>rigeō</i> L <i>rubeō</i> , OIr. <i>ruidid</i> , OHG <i>rotēn</i> , Lith <i>rūdžiù</i> , OCS <i>růždu</i> ? Lith <i>spīngiu</i> OCS <i>sīčo</i>			(έρεύθω, έρυθαίνω) (φέγγω)
1*(h₁)reudh-					
*(s)bʰeng-					
*seikʷ-	G ἐσφάλην		ἐσφάλην	σφάλλω	(σφάλλω) (σκεδάννυμι)
*(s)gʷh₂el-					
*(s)kedh₂-	? Lith <i>kedeti</i>				
2*(s)kend-		L <i>candeō</i>			
2*(s)ker-	? G ἐκάρην		ἐκάρην		(κείρω)
*(s)kerbʰ-	? OCS <i>-skrūbě</i>				
*skeubʰ-	? Lith <i>skubéti</i>				
2*smer-					
*smerd-	Lith <i>smirdéjo</i> , OCS <i>-smrūděšę</i>				(μείρομαι)
1*spend-					
*(s)penh₁-		? TcB <i>späntetär</i>			(σπένδω)
*speud-		? Cz <i>pním</i>			(πένομαι)
*splend-		Lith <i>spūdžiù</i>			(σπεύδω)
*spʰerH-		? L <i>splendeō</i>			
?*sreiH'(ǵ)̄-	? OCS <i>-přešę</i>				
*sreu-	? G ἐρρήγησα				
*stebʰ-	? G ἐρρύη				
*stel-					
1*(s)teud-	? G ἐστάλην		ἐστάλην		(στέλλω)
2*steud-					
*(s)teup-	? OCS <i>-styděšę</i>				
2*sueid-	G ἐτύπην				
*suelH-	? Lith <i>svidéti</i>				
*suergʰ-	? L <i>īn-solēscō</i>				
*telH-	OCS <i>tilějo</i>				
*telh₂-					
*ten-					
1*tep-					
2*terp-	OCS <i>trūpěxū</i>				
ters-	G τερσῆναι, L <i>torrēscō</i>				
*teuH-					
*teup-					
*trem-					
*t̥uem-	L <i>tumēscō</i>				
*t̥uerH-					
*uegʷ-	? L <i>ūvēscō</i>				
*uei(H)-	? L <i>viēscō</i>				
1*ueis-					
1*uel-	G ἀλῆναι	L <i>vireō</i>	ἐάλην		(εῖλω)
1*uelH-					
*uelh₃-	G ἔάλων	L <i>valeō</i>	ἐάλων		(άλισκομαι)
*uenH-					
3*uer-		ON <i>una</i> , OHG <i>wonēn</i>			
*uleikʷ-		L <i>vereor</i>			
*ūreh₁(ǵ)̄-	? G ὑπ-ερράγη	L <i>liqueō</i>	-ἐρράγην		(ρήγνυμι)

fientives 59 Italic 6, Balto-Slavic 23, Greek 27, Germanic 0, Tocharian 1, Armenian 1, Celtic 0, Indo-Iranian 2, Albanian 3, Anatolian 1
essives 80 Italic 39, Balto-Slavic 41, Greek 3, Germanic 16, Tocharian 6, Armenian 3, Celtic 4, Indo-Iranian 2, Albanian 1, Anatolian 0

Table IV: -η- aorists in Homer

root	aorist passive in -η-	aorist passive in -θη-
...P/K ^w -	σαπήη 'rots' [σῆπομαι], ἐτάρπη 'enjoyed' [τέρπω] ἐβλάβη 'was hindered' [βλάπτω], ἐτύπη 'was struck' [τύπτω], τρυφέν 'broken' [θρύπτω]	τάρφθη τέρφθη 'enjoyed' [τέρπω], στρεφθείς 'having turned one's face' [στρέψω], τράφθη 'turned one's step' [τρέπω] βλάρθη 'was hindered' [βλάπτω], ἀναγνάμφθη 'was bent back' [γνάμπτω], δρύφθη 'was torn' [δρύπτω], ἐάνφθη 'clung' [ἴάπτω?], καλυφθείς 'covered' [καλύπτω], κρύφθη 'was hidden' [κρύπτω], ἐνισκίμφθη 'stuck' [σκίμπτω], χρίμφθη 'grazed' [χρίμπτω]
...T-		ἀμερθῆς 'was bereft' [ἀμέρδω], ἐρείσθη 'leaned upon' [έρειδω], πιεσθείς 'pressed' [πιεζω] ἐκλύσθη 'washed' [κλύζω], διεσχίσθη 'was cloven asunder' [σχίζω], ἐφράσθη 'considered' [φράζω] κυλίσθη 'rolled' [κυλίνδω]
...K-	διετμάγεν 'parted' [τμήγω], ἀναβροχέν 'swallowed' [*βρόχω] πλήγη 'was stricken' [πλήσσω]	ἔλέχθη 'was counted' [λέγω], θέλχθη 'was enchanted' [θέλγω], τύχθη 'occurred' [τεύχω] ήχθη 'was darted, slipped' [άισσω], ἀράχθη 'was dashed' [ἀράσσω], ἀτυχθείς 'amazed' [ἀτύχομαι], ἐλελίχθη 'turned' [ἐλελίζω], ἐλίχθεις 'turned' [ἐλίσσω], θρυλίχθη 'was crushed' [θρυλίσσω], θωρίχθη 'was armed' [θωρίσσω], πελεμίχθη 'quivered' [πελεμίζω], πλάγχθη 'went astray' [πλάζω], τινάχθη 'was shaken' [τινάσσω], φραχθείς 'fenced' [φράσσω] ἐρχθείς 'shut' [εἰργνυμ], πῆχθεν 'stuck' [πήγνυμ]
...s-	τερσήμεναι 'to dry up' [τέρσομαι] ἐδάη 'learned' [διδάσκω]	νάσθη 'settled' [ναίω]
...H-	ἐδάμη 'was overcome' [δάμνημ]	ἀμφιτεθῖσα 'put' [ἀμφιτίθημι], δοθείη 'be given' [δίδωμι], παρείθη 'hung down' [παρίημι], ἐπλήσθη 'was full', ρηθείς 'said' [είρω], ἐστάθη 'was set, stood' [ἴστημι] ἀάσθη 'was mislead' [άάω], ἀλήθη 'wandered' [ἀλόμαι], κεάσθη 'was cloven' [κεάζω], ἐκλάσθη 'was broken' [κλάω], ούτηθείς 'wounded' [ούτάω], πελάσθη 'approached' [πελάζω], σπασθείς 'drawn' [σπάω] ἐδμήθη δαμάσθη 'be overcome' [δάμνημ], δυνάσθη 'was able' [δύναμαι], φαάνθη 'appeared' [φαίνω] ἐκεδάσθη 'was broken up' [κεδάννημ], κορέσθη 'was satiated' [κορέννημ], πετάσθη 'spread wide' [πετάννημ] ἄρθεν 'were joined' [ἀραρίσκω], μνήσθη 'made mention' [μημνήσκω]
...R-	θερέω 'became hot' [θέρομαι] φάνη 'appeared' [φαίνομαι], ἐχάρη 'rejoiced' [χαίρομαι], ἐάλη 'was shut in' [εῖλω]	ἀγέρθη 'gathered' [ἀγείρω], ἀρθείς ἀέρθη 'hung' [ἀείρω, αἴρω], τάθη 'lay stretched' [τείνω] τανύσθη 'lay stretched' [τανύω]
...i/uH-		ἀμτνύνθη 'gained consciousness' [πέπνυμαι], ἐλύθη 'was resolved' [λύω] λιάσθη 'sank' [λιάζω] ἐκρίνθη 'was chosen' [κρίνω], ὁρίνθη 'was stirred' [ὅρινω] δινήθη 'roamed about' [δινέω], κινήθη 'was moved' [κινέω]
...i/u-	ῥύη 'flowed' [ῥέω] ἐδάη 'burned' [δαίω], ἐκάη 'burned' [καίω]	δηρίνθη 'contended' [δηρίομαι], ώισθη 'believed' [ώιομαι], ἔξεσύθη 'rushed out' [σεύω], ἐχύθη 'was shed' [χέω] ἐκλί(ν)θη 'leaned, lay down' [κλίνω], ἐφθίθη 'perished' [φθίνω] ἐλύσθη 'rolled round' [ἐλύω], ἐρραίσθη 'suffered shipwreck' [ῥαίω]
-es-		αιδέσθη 'was ashamed' [αιδέομαι], τελέσθη 'ended' [τελέω]
-eh ₂ -		ἀνιηθείς 'distressed' [ἀνιάω], εύνήθη εύνασθεν 'went to bed' [εύνάζω / -άω], θοινήθη 'was feasted' [θοινάω], ἐκλάσθη 'was broken' [κλάω], κοιμήθη 'went to bed' [κοιμάω], κυκήθη 'was confounded' [κυκάω], νεμεσοήθη 'felt shame' [νεμεσάω], νικήθείς 'conquered' [νικάω], ώπτήθη 'was roasted' [ώπταω], δρμήθη 'rushed' [δρύμαω], πειρήθη 'tried' [πειράσμαι], σήκασθεν 'were shut up' [σηκάζω], τελευτήθη 'happened' [τελευτάω]
-e-		ἐλκηθείς 'dragged about' [ἐλκέω], κοσμήθη 'was adorned' [κοσμέω], φκήθη 'was settled' [οικέω], πτοιήθη 'was scared' [πτοιέω], φιλήθη 'was beloved' [φιλέω], φοβήθη 'was put to flight' [φοβέω]
-o-		ἀιστώθη 'was destroyed' [ἀιστόω], ἐγυμνώθη 'was stripped naked' [γυμνόω], δηωθείς 'slain' [δηίω], ἰδνώθη 'bent oneself' [ϊδνόμαι], κυρτωθείς 'humped up' [κυρτόω], μονωθείς 'left alone' [μονόω], οινωθείς 'drunk' [οίνω], οιώθη 'was left alone' [*οίσομαι], όμοιωθη 'became alike' [όμοιόω], όμωθη 'was united' [όμδω], δρθωθείς 'set upright' [δρθόω], περαιωθείς 'passed over' [περαιόω], πιστώθη 'was made trustworthy' [πιστόω], σαώθη 'was saved' [σαόω], χολώθη 'was angered' [χολόω]
-u-		ἐρητύθη 'was prevented' [ἐρητίω], ἰδρύνθη 'sat still' [ἰδρύω]
		ἀρτυνθείς 'arranged' [ἀρτύνω], βαρυνθείς 'weighed down' [βαρύνω], ἰθύνθη 'ran straight' [ἰθύνω]
-i-		ἀεικίσθη 'was injured' [ἀεικίζω], ἀολλίσθη 'assembled' [ἀολλίζω], νοσφιοθείς 'turned away' [νοσφίζω], ὀπλίσθη 'got ready' [ὀπλίζω]
-η-		αὐανθείς 'dried' [αὐαίνω], ιάνθην 'was cheered' [ιαίνω], μαράνθη 'went slowly out' [μαραίνω], μιάνθη 'was stained' [μιαίνω], ξηράνθη 'became dry' [ξηραίνω], πημάνθη 'suffered harm' [πημαίνω], ὑπεθερμάνθη 'grew hot' [θερμαίνω]

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