

Thematic aorists of *CeRh₃ roots in Greek

There are four ‘*o*-grade thematic’ aorists in Greek, namely ἔθορον ‘leapt’, ἔμολον ‘went’, ἔπορον ‘gave’, and ἔτορον ‘pierced’, along with two *o*-grade *s*-aorists ἐστόρεσα ‘spread’ and ἐκόρεσα ‘satisfied’, all standardly reconstructed with a root-final *h*₃ (cf. LIV **d^herh*₃, **melh*₃, **perh*₃, **terh*₃). Their unusual *o*-vocalism in the root has been a subject of much debate and is still not fully understood. The current *communis opinio* on the matter (insofar as there is one) follows two approaches: one, pioneered by Rui Pérez (1950), supposes a *post-Mycenaean* metathesis **eRo*- > *oRe*- that happened to earlier *e*-grade athematic 2/3sg. forms **CeRh*₃-*s,t* (followed by Cardona 1960: 78-9, Cowgill 1965: 157-9, Peters 1980: 30n19, Beekes 1988: 74-5, Harðarson 1993: 169-70, and others), and the other one, proposed by Kuryłowicz (1956: 207–8), resorts to interparadigmatic analogy with models showing *TRāC* : *TaRV* ablaut (such as κμᾶτός : ἔκαμε ‘toiled’) whereby *TRōC* forms would suggest *ToRV* as in, e.g., βλώσκω => ἔμολε ‘went’ (followed by Cowgill 1965: 147-8, Willi 2018: 342-3, and others). In this paper I will (1) evaluate the two current theories and show that both approaches face considerable problems and (2) propose a tentative alternative based on a conditioned “laryngeal umlaut” outcome of **CRh*₃*V* sequences in Greek (cf. Beekes 1969: 216-7, 221-7).

The metathesis hypothesis is in its essence an *ad hoc* solution for the *o*-grade aorists without secure parallels elsewhere in Greek. The often-cited Myc. *re-wo-te-re-jo* ‘for bathing’ next to Homeric λοετρόν is not strictly informative as the vocalism in the Homeric forms could be due to the influence of the present λοέω ‘to bathe’, with inherited *o*-grade (cf. Arm. *loganam*, Lat. *lavere* [< **loyh*₃-*o/e*-], cf. Vine 2006: 238-9). Further, considering counterexamples such as Myc. *re-wo-te-jo* ‘(with heads) of lion’ next to Hom. λεόντειος, where metathesis fails to apply, the supposed change must only target *o* from vocalized **h*₃, which then requires a highly improbable situation where post-Mycenaean Greek still possessed a vowel system that maintained a distinction between two different *o*’s (i.e. “*o*₁” from PIE **o* and “*o*₂” from PIE **h*₃). Morphologically, the metathesis **eRo*- > *oRe*- presupposes a generalization based on the *e*-grade root aorist, a scenario that operates against the observed pattern in Greek, where for both **CeRH* roots (e.g. ἔταμον, ἔβαλον, ἔκαμον) as well as roots of other shapes the thematic aorist is predominantly derived from the zero-grade root, *e*-grade formations being marginal for this category (e.g. ἔτεμε, ἔτεκε, etc.).

The interparadigmatic analogy is at face value possible and difficult to rule out. But the following objections make it unlikely that analogy is the sole factor behind the creation of these *o*-grade forms. First, considered typologically, analogy tends to be exerted from more frequent forms to less frequent ones (Albright 2008: 145 with references, cf. Cowgill 1965: 158, Hock 1991: 210-37), whereas in early epic the θορ-, μολ-, and πορ- forms all vastly outnumber those of θρω- (pres. θρώσκω), βλω- (pres. βλώσκω, perf. μέμβλωκε), πρω- (perf. πέπρωται), on the order of 36:12, 12:5, and 71:7. This distribution renders the argument extremely difficult, especially in the case of ἔπορον, where the rare perfect is supposed to be the analogical pivot. Similarly unattractive is the attempt to derive the *o*-vocalism in ἐστόρεσα and ἐκόρεσα (both abundantly attested) from στρω- and κρω- forms: the former is attested only 2x (ἔστρωτο *Il.* 10.155 and στρωτοῖς Hes. *Th.* 799) and the latter does not exist. Within Greek it has also been noted since Chantraine (1961: 203) that the aorist more often imposes its vocalism on other stems and especially the present (e.g. στυγέω ‘hate’ ~ ἔστυγον, δείκνυμι ‘show’ ~ ἔδειξα, etc.), not vice versa. Further, the alleged analogy lacks sufficient motivation as it in effect creates *de novo* a new stem category, i.e. a thematic aorist with root *o*-vocalism, that is not seen elsewhere in the Greek verbal system.

The current theories must therefore be reconsidered. The following facts are relatively undisputed: (1) the existence of a final **h*₃ (in light of the *TRō*- forms) in the roots in question, (2) the general preference for zero-grade stem in the Greek thematic aorist across the board, and (3) the fact that the *o*-vocalism here is a *morphological anomaly*. On this basis I argue that the origin of these *o*-grade forms must be sought in a *phonologically regular* outcome of the sequence **CRh*₃-*V* (in the 3pl. *CRh*₃-*o/ent*) as **CoR*-*V* (probably via **CaRh*₃) and that the “laryngeal umlaut” effect proposed by Beekes (1969: 216-7, 221-7, 231-4; *pace* Beekes 1988: 75), Monteil (1978: 151-3), and Ruijgh (1997: 270-4) must be fundamentally correct and is the only plausible way to account for the *o*-grade aorists. The *a*-vocalism in the often-cited (and likely the only) counterexample ἐάλων (cf. LIV **uelh*₃-) is rather (as per Peters 1980: 31n19) due to a Siever’s variant **u₁elh*₃-. More tentatively, I propose that the umlaut effect of **h*₃ was originally restricted to a labial environment (cf. the distribution of *īr/ūr* < **RH* in Vedic), as shown in the two robust exemplars of this category ἔμολον and ἔπορον, whose correspondence with βλω- and πρω- stems thus forms the historical core of this type, which later spread to non-labial *CeRh*₃ roots (originally with *a*-vocalism as preserved in Hsych. θάρνυσθαι : ὀχεύειν). To these, one may add Hom. βόλομαι ‘desire’ and Pamphyl. βολεμενυς as a further example, which could reflect **g^wh*₃-*e/o* (with the zero-grade possibly borrowed from a nasal present **g^wh*₃-*n-h*₃-). The explanation involving the **eRo* > **oRe* metathesis (i.e. **g^wole*- < **g^welo*- < **g^welh*₃-) proposed by Peters (1986: 310-1) cannot be correct given Thessal. βέλομαι (unmetathesized and without models after which the *e*-grade could be restored).

References:

- Albright, Adam. 2008. Explaining universal tendencies and language particulars in analogical change. In: Jeff Good (ed.) *Linguistic Universals and Language Change*, 144-82. New York and Oxford: Oxford University Press.
- Beekes, Robert S. P. 1969. *The Development of the Proto-Indo-European Laryngeals in Greek*. The Hague and Paris: Mouton.
- 1988. Laryngeal developments: a survey. In: Alfred Bammesberger (ed.) *Die Laryngaltheorie und die Rekonstruktion des indogermanischen Laut- und Formensystems*: 59-105. Heidelberg: Winter.
- Cardona, George. 1960. *The Indo-European Thematic Aorists*. Doctoral Dissertation. Yale University.
- Chantraine, Pierre. 1961. *Morphologie historique du grec* (2nd edn.). Paris: Klincksieck.
- Cowgill, Warren. 1965. Evidence in Greek. In: Werner Winter (ed.) *Evidence for Laryngeals*: 142-80. The Hague: Mouton.
- Hardarson, Jón Axel. 1993. *Studien zum urindogermanischen Wurzelaorist und dessen Vertretung im Indoiranischen und Griechischen*. Innsbruck: Institut für Sprachwissenschaft - Universität Innsbruck.
- Hock, Hans Henrich. 1991. *Principles of Historical Linguistics* (2nd edn.). Berlin: De Gruyter.
- Kuryłowicz, Jerzy. 1956. *L'Apophonie en indo-européen*. Wrocław: Zakład Imienia Ossolińskich, Wydawnictwo Polskiej Akademii Nauk.
- Monteil, Pierre. 1978. Aoriste thématique et vocalismes anomaux en grec ancien. In: Michel Lejeune (ed.) *Étrennes de septantaine: Travaux de linguistique et de grammaire compare offerts à Michel Lejeune par un groupe de ses élèves*: 139-55. Paris: Klincksieck.
- Peters, Martin. 1980. *Untersuchungen zur Vertretung der indogermanischen Laryngale im Griechischen*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- 1986. Zur Frage einer "achäischen" Phase des griechischen Epos. In Annemarie Etter (ed.) *o-o-pe-ro-si: Festschrift für Ernst Risch zum 75. Geburtstag*: 303-19. Berlin and New York: De Gruyter.
- Ruijgh, Cornelis J. 1997. Les Lois phonétiques relatives aux laryngales et les actions analogiques dans la préhistoire du grec. In: Alexander Lubotsky (ed.) *Sound Law and Analogy: Papers in Honor of Robert S. P. Beekes on the Occasion of his 60th Birthday*: 263-83. Amsterdam and Atlanta: Rodopi.
- Ruipérez, Martín Sánchez. 1950. Problemas de morfología verbal relacionados con la representación en griego de las raíces disilábicas set. *Emerita* 18: 386-407.
- Vine, Brent. 2006. On 'Thurneysen-Havet's Law' in Latin and Italic. *Historische Sprachforschung* 119: 211-49.
- Willi, Andreas. 2018. *Origins of the Greek Verb*. Cambridge: Cambridge University Press.