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Greek *αἰδῖος*, *μυνοθάδιος*, *ρήιδιος*: Etymology, phraseology, and labiovelar palatalization¹

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Abstract: A well-known problem in the historical phonology of Greek is the distribution between labial and dental reflexes of labiovelars before front vowels. In particular, the divergence between the reflexes $*k^wi > \tau$ and $*g^wi / *g^{wh}i > \beta$ seems strange, but on closer inspection it appears that β is not the only reflex of $*g^wi$: examples like *αἰδῖος* ‘eternal’ < “living forever” (PIE $*g^wih_3$ - ‘live’) and the personal name *Ἀντίδιος* (cf. *ἀντίβιος* ‘adverse, aggressive’) were adduced already by Schwyzler (1939: 301). I will present further arguments for Schwyzler’s reconstruction of *αἰδῖος* and propose two new instances of δ < $*g^wi$: *μυνοθάδιος* ‘short-lived’ and *ρήιδιος* ‘without effort’ (related to β ίη ‘force’). Finally, after reviewing the complete evidence for labiovelars before /i/ in Ionic-Attic, I propose a new phonetic account of the distribution between the two outcomes of labiovelars before front vowels.

Introduction

There is a well-known divergence in the outcome of labiovelars before the high front vowels /i, ī/ in Attic and Ionic Greek. The clearest instances of PGr. $*k^wi$ yield an outcome τ , with an alveolar or dental stop:

- τ ίω ‘to honor’ and τ ιμή ‘prestige’ from the root PGr. $*k^wi-$ < PIE $*k^wiH-$ / $*k^weH-i-$ (cf. Skt. *cāyati* ‘take notice, recognize’);
- τ ίνω ‘to pay compensation’ from a thematized *nu*-present $*k^wi-nu-e/o-$ (for PIE $*k^wei-$ cf. *ποινή* ‘requit’ with Av. *kaēnā* ‘punishment’, Lith. *kainà* ‘value, price’, OCS. *cěna* ‘id.’);
- the interrogative/indefinite pronoun τ ίς/ τ ις < PIE $*k^wi-$.

Throughout this article, I will speak of τ as the palatalized outcome of $*k^wi$ (and similarly for δ < $*g^wi$), as is customary in scholarship on

¹ An earlier (abridged) version of this paper were presented at the workshop *More Hitches in Historical Linguistics* at Ghent University (16–17 March, 2015) and at the *2nd Indo-European Research Colloquium* in Würzburg (31 March – 1 April, 2016). I would like to thank the audiences at these occasions for their feedback. The article was completed thanks to the generous support of NWO (Netherlands Organisation for Scientific Research) who funded the author’s VENI-project *Unraveling Homer’s Language*.

this problem. The reason is that intermediate stages in the development of the stop probably had a labio-palatal and/or palatal co-articulation.²

On the other hand, in the following reliable examples **g^wi* and **k^{wh}i* yield Ion.-Att. βι and φι, respectively, with a labial stop:³

- βίος ‘life, livestock’, βίोटος ‘id.’ < PIE **g^wih₃-o-* and **g^wih₃-eto-*;
- Ion. βίη, Att. βιά ‘force; violence’ < PIE **g^wi-eh₂-* or **g^wiH-eh₂-*, related to Skt. *jáyate* ‘to vanquish, overcome; win’;
- βιός ‘bow’ < PIE **g^wiH-ó-* ‘provided with a string’ (cf. Skt. *gyā-* ‘bowstring’ < PIE **g^wieH-*);
- ὄφις ‘snake, serpent’ (Hom.+, class.) < PIE **h₃eg^{wh}i-* (Skt. *áhi-*, Av. *aži-* both ‘id.’).

This asymmetry is not found before the mid front vowel /e/ and its long counterparts /ɛ:/ (from PIE **ē*), /e:/ (from contractions and the first compensatory lengthening): in these cases the outcome is always palatalized, independent of the way of articulation of the labiovelar.⁴

The different treatment of **g^wi*, **k^{wh}i* (as opposed to **k^wi* as well as **k^we*, **g^we*, **k^{wh}e*) in Ionic-Attic is generally considered problematic. Several solutions have been proposed, but none of these has managed to win general acceptance. One intuitively expects the high front vowel [i] to have more capacity to cause palatalization than the mid front vowels [e] and [ɛ]. However, before focusing on phonetic explanations (as we will do in section 7), it should be noted that the distribution just cited is not the whole story. Several candidates for a development **g^wi* > δι have been known at least since Schwyzer’s *Griechische Grammatik*⁵:

- ἀίδιος ‘eternal’ < PGr. **aiwi-g^wios* ‘having an everlasting life’ (*vel sim.*);
- the personal name Αντίδιος, if from the same pre-form as Hom. ἀντίβιος ‘hostile, aggressive’ (~ βίη ‘force’);
- the perfect participle ἐνδεδιωκοτα (*Tab. Heracl.*), which qualifies plants or trees that are ‘established’ in the soil (German

² For further phonetic details, see section 7 below.

³ It is uncertain that ὄπις ‘retribution; respect’ derives from PGr. **ok^wi-* ‘observation’: see section 7.

⁴ Cf. Rix 1992: 86–8. There is one notable exception to a general palatalization before *e*-vowels, Ion.-Att. ὀβελός ‘spit’ < PGr. **og^welo-* against ὀδελος in Cretan, Arcadian and Delphic inscriptions. This case will be further discussed below.

⁵ Schwyzer 1939: 301, cf. also Lejeune 1972: 50.

angewurzelt), and is generally supposed to belong to the verbal root βιω- ‘to live’ (intr. aor. βιῶναι, fut. βιώσομαι);

- διερός ‘active; lively’(?) if to be derived from *g^wiH- ‘to live’ (cf. Ved. *jīrá-* ‘id.’);
- ἴδιος ‘proper, one’s own, private’ from PGr. *wi-g^wios “living separately” (Hirt 1927: 328) or from *swe-g^wios ‘having one’s own life’ (Schwyzer 1930: 322–4, comparing Arg. φηδιστας ‘free man’).⁶

The form ενδεδιωκοτα has been the topic of several discussions, but since it stems from another dialect group (Doric), it is not necessarily relevant for the labiovelar developments in Ionic-Attic.⁷ The etymology of διερός has been treated in an article by García Ramón (1991), who derives it from the verb δίεμαι ‘to hasten, hurry’ and rejects the connection with ‘live’. The other etymologies, however, have hardly received any attention: the historical grammars of Rix (1992) and Sihler (1995) ignore these proposals altogether in their discussion of the labiovelar developments. The etymological dictionaries (*GEW*, *DELG*, *EDG*) mention neither Hirt’s proposal for ἴδιος nor Schwyzer’s for ἀίδιος.⁸ Wathélet (1970: 65) remarks: “Dans aucun cas, l’étymologie n’est assurée”.

Other scholars, however, have accepted the evidence collected by Schwyzer and discussed the phonological conditioning of the various outcomes. In Hamp’s opinion (1960: 196), the examples Ἀντίδιος, ἴδιος, and ἀίδιος show that *g^wi yielded δι only when preceded by i. Stephens & Woodard (1986) interpret the evidence for *g^wi > δι in a similar vein: they assume an early, Pan-Greek round of palatalization of labiovelars before /i/ in which not only voiceless, but also voiced labiovelars took part, provided that they were preceded by any front

⁶ δίατα ‘way of life’ has also been included in this discussion, but this leads nowhere: the form may be a backformation from διατάω ‘to lead one’s life’ and contain the preverb δια- (Schwyzer 1939: 300–1; Francis 1973: 102 n. 7).

⁷ Cf. García Ramón (1999: 241), who speaks of a “rein lokale Entwicklung *g^wi- > di- im Randgebiet Herakleia (...) die für die Verhältnisse im ionischen Bereich (...) irrelevant ist”. Cf. also Frisk’s remark, “für sich steht herakl. ενδεδιωκότα” (*GEW* s.v. βίος). We will see below that the developments in West Greek are almost identical to those in Ionic-Attic.

⁸ Parker 2013 does not mention the idea either. Among the handbooks, a notable exception is Lejeune (1972: 50 n. 4), who mentions all three etymologies involved (though without further reference), and judges them to be possible, but unconvincing evidence. Schwyzer’s proposals are mentioned by Francis 1973 and García Ramón 1999, but with a negative evaluation.

vowel (1986: 146).⁹ Schwyzer himself (1939: 301) had already drawn attention to the different treatment of initial and word-internal **g^wi*: “dass *g^wi* (eventuell auch *k^wi-*) im Anlaut der vor *i* besonders leicht sich einstellenden Palatalisierung entzogen werden konnte; βι (und πι) sind auf den Anlaut beschränkt”. Schwyzer’s conclusions were accepted by Uguzzoni (1986).

Given the lack of consensus among the handbooks, it is remarkable that neither Hamp nor Stephens & Woodard discuss the reliability of the etymologies they accept. The first issue to be addressed in this paper is, therefore, to what extent Schwyzer’s reconstruction of *ἄιδιος* is compelling. To this purpose, I will start by discussing the evidence for derivations in *-διος* (*-ίδιος*, *-άδιος*).

1. The suffix *-διος* deriving adjectives from adverbs

Before discussing my proposals for reconstructing *ἄιδιος*, *μινυθᾶδιος*, and *ῥηίδιος*, let us first examine the problems with the widely-accepted analysis of these forms. According to this view, they were derived from the adverbs *αἰεῖ*, *μίνυθα*, and *ῥεῖα* < **ῥῆα* by means of the adjectivizing suffixes *-διος* and *-ίδιος*, respectively.¹⁰

Against this idea, it must be pointed out that *-διος* and *-ίδιος* are still rare in Homer. Since they are not inherited suffixes, the question arises how they became productive, and especially if (and to what extent) they were already productive in Homeric times.¹¹ According to Schwyzer (1939: 467), the suffix *-άδιος* was extracted from *ἀμφάδιος* ‘out in the open, public’.¹² It is problematic, however, that *ἀμφο-* is not a well-formed Greek stem; it would therefore have been difficult to isolate a suffix *-διος* or *-άδιος* from *ἀμφάδιος*, which in reality was derived from the adverb *ἀμφαδόν* with the normal adjectivizing suffix *-ιος*. Thus, among the adverbs in *-διος* attested in Homer, there is no derivational model for creating *διχθάδιος* or *μινυθᾶδιος*. Furthermore, there is no semantic affinity between *διχθάδιος* and *μινυθᾶδιος* on the one hand, and *ἀμφάδιος* on the other.

⁹ Woodard & Stephens base this extension of the rule to all preceding front vowels on the Heracleian form *ενδεδιωκοτα*.

¹⁰ See already Brugmann (1904: 494) for the idea that *-διος* derived adjectives from adverbs, citing *νοσφίδιος*, *ἄιδιος*, *ἐνδοθίδιος* (Gortyn), *μαψιδίως*, *διχθάδιος*, *μινυθᾶδιος*, *ἐνωπαδίως*, and *ῥηίδιος*.

¹¹ See the list of examples in Risch 1974: 123–4.

¹² “... nach *ἀμφάδιος* (...) bildete man schon in homerischer Zeit zu Wörtern auf *-α* *διχθάδιος* *μινυθᾶδιος* *ἐνωπάδιος*” (1939: 467).

Some formations in -(ά)διος are attested exclusively in Homer and have been plausibly analyzed as analogical creations of the epic *Kunstsprache*. For instance, ἐνωπάδιος is attested only once as an adverb ἐνωπαδίως ‘in the face’, and the base form ἐνώπα also occurs once.¹³ Since the meaning is close to that of ἀμφάδιος, it is plausible that ἐνωπάδιος is an incidental cross-over between ἐνώπα and ἀμφάδιος, as Chantraine (1933: 39) remarked.¹⁴ The form κρυπτάδια ‘secretly’ (only at *Il.* 1.542, 6.161) can be accounted for in a similar way: it was formed on the basis of κρυπτό- after the antonym ἀμφοδίην (Risch 1974: 123).

While some Homeric forms in -άδιος were derived from adverbs in -αδόν / -άδην and while others were artificially created, the origin of -δ- in διχθάδιος and μινυνθάδιος remains unclear.¹⁵ Concerning the evidence for an independent suffix -ίδιος, Schwyzer (l.c., following Fraenkel 1909: 260–1) mentions only ῥηΐδιος and μαυιδίως as Homeric examples, while κουρίδιος ‘lawfully wedded’ would contain a “blosse Verlängerung” of -ιος.¹⁶ We therefore have to ask anew how the rise of -διος (or -ίδιος) as an independent suffix deriving adjectives could be explained.

The obvious starting point is to truncate -ιος, a suffix which shares one of the main functions of -(ί)διος, nominalization of adverbials.¹⁷ There are three basic possibilities to obtain a form ending in -διος from a stem ending in -δ-:

¹³ ἐνωπαδίως ἐσίδεσκεν “she would look him in the face” (*Od.* 23.94), κατ’ ἐνώπα ἰδόν “looking [the Danaans] in the face” (*Il.* 15.320).

¹⁴ The more frequent pair μινυνθάδιος beside μίνυνθα may also have helped the creation of ἐνωπάδιος.

¹⁵ Cf. Chantraine (1933: 39), “L’origine du δ est moins claire dans διχθάδιος «partagé en deux» ou «double» (Homère), cf. δίχθα [recte διχθά, LvB]; (...) μινυνθάδιος «qui dure peu», cf. μίνυνθα”.

¹⁶ The derivation of Homeric κουρίδιος remains obscure. Thieme (1963: 216–220) describes the history of research into the meaning of κουρίδιος and correctly points out the problems with Bechtel’s proposal, according to which κουρίδιος was formed beside κόρη ‘maiden’ on the model of νυμφίδιος ‘bridal’ beside νύμφη: νυμφίδιος is not yet attested in Homer, who only uses νύμφιος. Thieme himself points out a possible motivation for avoiding the expected form κούριος: it would have looked like a derivation from the masculine form κοῦρος. He therefore suggests that an additional suffix -ιδ- was used on the model of παλλακίδ- ‘concubine’ in order to underline the feminine gender of the referent. Whether this explanation (accepted by Risch 1974: 123) is correct or not, κουρίδιος has no immediate relevance for the present discussion because it was derived from a substantive, not from an adverb.

¹⁷ The suffix -ιος was highly productive in deriving adjectives of appurtenance from nouns, but it could also be attached to adjectives, verbal roots, or adverbs, and was used to create nominalizations of prepositional phrases (cf. Risch 1974: 112ff.). In the terminology of Nussbaum (2014), the suffix -ιος is ‘genitival’.

- ῥήϊδιος ‘easy’, adv. -ως (Hom.+) ← ῥεῖα (< *ῥῆα) ‘id.’.

(c) nominalization of a prepositional phrase:

- only ἐπινεφρίδιον δημόν ‘fat on the kidneys’ (*Il.* 21.204) ← ἐπὶ νεφροῖς.

(d) derived from a local adverb:

- Cretan ενδοθιδιαν ‘house-’ (*Lex Gortyn* II, 11; qualifies δῶλαν ‘female slave’), substantivized in Epidaurean ενδοσθιδια ‘entrails’ (*IG* IV 1² 40, 17; dated ca. 400) ← adv. ενδοσθε ‘inside’ (a dialectal reshaping of εντοσθε ‘id.’),
- ὀπισθια ‘back-’ (Sophron fr. 49 Kassel-Austin),
- Locrian υπαπροσθιδιῶν (gen.pl.) ‘the former proprietors/inhabitants’ (*IG* IX 1² 609 A-B, 16 and 18), Elis προστιζίων (*IvO* 3 = Minon 2007, 13.7) ← adv. πρόσθε ‘before’.

The derivations from local adverbs listed under (d) are limited to West Greek, and therefore not directly relevant for establishing what happened in Ionic-Attic.²⁴ In fact, Ionic and Attic consistently have forms in -ιος corresponding to the forms cited under (d), e.g. ὀπίσθιος ‘back-’, πρόσθιος and ἐμπρόςθιος ‘front-’. I also leave out of consideration type (c), compounded adjectives in -ίδιος of which the base form is a prepositional phrase, because this is a well-delimited group of derivations that will hardly have played a role in the creation of uncompounded adjectives like ῥήϊδιος.²⁵ The exact origin of type (c) is not entirely clear either: Homeric ὑπασπίδιος ‘covered under a shield’ is the only example based on a stem in -ιδ-, and the continued existence of the base form ἀσπίδ- would surely have prevented a reanalysis of the derived adjective. Risch 1974: 123 explains Homeric ἐπινεφρίδιον, the only early example of type (c), as influenced by a hypothetical *ἐπιπραπίδιος (derived from πραπίδες ‘midriff’). This is conceivable, but remains a guess.

²³ After Homer, an adjective μαψίδιος occurs (Hes. fr. 10(a).87, E. *Hel.* 251, and a few more times).

²⁴ In addition, the fragmentary attestation of the West Greek dialects in question may hinder our ability to reconstruct what exactly happened there.

²⁵ This type becomes productive to some extent in the classical language but remains quite rare. Examples are ἐγχειρίδιος ‘located in the hand’ (A., later substantivized neuter ‘dagger’) ← ἐν χειρὶ, ἐπιγουνίδιος ‘located on the knee’ (Pi. *Pyth.* 9.62) ← ἐπὶ γούνασι (Hom., but note the existence of a noun ἐπιγουνίς ‘great thigh muscle’), ἐπιθαλασσίδιος and παραθαλασσίδιος ‘located by/close to the sea’ (both *hapax* in Th.) beside more frequent ἐπιθαλάσσιος and παραθαλάσσιος, and some more examples; see Fraenkel (1909: 261–2).

This leaves only the six cases of *-διος* under (a) and (b) to be accounted for. Since the number of cases is small, the claim that *-(i)δῖος* arose by reinterpretation of *-(i)δ-ιος* can only be plausibly maintained if we are able to indicate where the reanalysis started.²⁶ This, however, appears to be difficult. Fraenkel 1909: 260, following Schulze, assumed that *ἀρμόδιος* ‘fitting’ (derived from *ἀρμόζω*, see above) was reanalyzed as deriving from the temporal adverb *ἀρμοῖ* ‘lately’. This is unlikely not only because *ἀρμοῖ* is rare and isolated, but also because its semantic connection with *ἀρμόδιος* is not obvious. Another form mentioned by Fraenkel is the hapax *νοσφίδιος* ‘concealed’ (derived from *νοσφίζω* ‘to put away’, see above), which in his view was reanalyzed as deriving from the adverb *νόσφι* ‘away, apart’. Again, this seems highly unlikely given that *νοσφίζω* is a common verb in poetry from Homer onwards. Another objection against using the hapax *νοσφίδιος* as a pivotal form is that we are looking for a model that occurred frequently enough to impose itself.

Thus, the origin of *-διος* (*-ίδιος*) in *αἰδῖος*, *διχθάδιος*, *μαψιδίως*, *μινυθᾶδιος*, and *ρήιδιος* is not well understood.²⁷ In what follows, I will argue that *αἰδῖος*, *μινυθᾶδιος* and *ρήιδιος* are fossilized compounds that originally ended in **-g^wios*, and that *διχθάδιος* and *μαψιδίως* were created on the basis of these forms.

2. Reconsidering *αἰδῖος*

The adjective *αἰδῖος* ‘eternal, everlasting’ is only scarcely attested in pre-classical Greek, being found in the pseudo-Hesiodic *Scutum* and in pre-Socratic philosophers. Moreover, it is relatively rare in the classical language (8x Th., 3x X., and in Pl.), and becomes frequent only in Aristotle.²⁸ On the one hand, the lack of early attestations seems to speak against a high antiquity of the form; but on the other hand, *αἰδῖος* looks relatively archaic since it is not easy to productively derive it by means of the suffix *-διος*: the expected derivation from Att. *ἀεί* (Ion. *αιεῖ*) ‘always, continuously’ would yield **ἀείδιος*.²⁹

²⁶ Thus, Risch (1974: 123) merely remarks that “Zu den Adverbien *διχθά* und *μινυθα* werden *διχθάδιος* ‘doppelt’ und *μινυθᾶδιος* ‘kurze Zeit dauernd’ gebildet”, without indicating why deadverbial *-διος* is found *only* in these two instances.

²⁷ Cf. for the same conclusion Schwyzer 1930: 222.

²⁸ It also occurs in *h. Vest.* 3, which is probably a late addition to the corpus of ‘Homeric’ hymns.

²⁹ This point was also made by Francis (1973: 102 n. 7), who does not accept Schwyzer’s and Hirt’s etymology for *αἰδῖος*: the form “still raises the question of the date at which *-ίδιος* was suffixed to *αι(φ)εῖ* and why the result is **αἰδῖος* rather than **αιεῖδιος*”.

Alternatively, one could assume that *-διος* was added to **aiwi*, a by-form of the adverb that is reflected dialectally (Lesbian, Arcadian, and Milesian Ionic) as *αῖ*.³⁰ However, we have just seen that the antiquity of *-διος* as a de-adverbial suffix before Homer is questionable, and Homer does not have *αῖ*, but only *αἰεί* and *ἀεί*. Another point is that *αἰδιος* has no separate feminine form, and in this respect behaves like a compound.³¹ We therefore have to consider whether *αἰδιος* can be explained differently.

Schwyzler (1939: 301) proposed to view in *αἰδιος* a compound of PGr. **aiwi* ‘always’ and **g^wio-* ‘life’ (> *βίος*). Although this etymology has been ignored by most other major reference works, it is highly attractive because the collocation of PIE **h₂eiu-* ‘life span’ and **g^wih₃-* ‘live’ is traditional. Inherited material reflecting a phrase “live forever” has been collected and presented by Weiss (1994) who argues, elaborating on a suggestion by Saussure, that *ὕγιής* ‘healthy’ reflects an old compound **h₂iu-g^wih₃-*. Looking at other languages, the same phraseology is probably reflected in Latin *iugis* ‘ever-flowing’, Gothic **ajuki-* in *ajuk-duþs* ‘eternity’, and Avestan *yauuaē.jī-* ‘living forever’.

There are some potential issues with Schwyzler’s reconstruction, but they can be adequately dealt with. A first point concerns the antecedents of the assumed first member, PGr. **aiwi*. Although this form may not be of Indo-European antiquity, it does underlie the form *αῖ*, which is attested in three different dialect groups and therefore probably of Proto-Greek date. Why several other locative forms are attested in Greek (and which of these forms existed in PIE) is a different question that need not be answered here.³²

³⁰ The form *αῖ* is also cited as Lesbian in Hdn. and retained in compounds (*αἰννάω* Sapph. fr. 44). The form would be the locative of the inherited root noun for ‘vital force, life span’; see *DELG* s.v. *αἰών* for further adverbial forms derived from the same root.

³¹ Cf. Vaillant (1927: 113): “Peut-être faut-il joindre à *εὔδιος* l’adjectif *αἰδιος* ‘perpétuel’, que son féminin en *-ος* (Brugmann, *Gr. Gr.*⁴ p. 211) invite, semble-t-il, à considérer plutôt comme un composé que comme un dérivé d’adverbe en *-διος*”. However, Vaillant’s analysis of *-διος* as the word for ‘day’ (as in *εὔδιος*) is clearly inferior to Schwyzler’s proposal to reconstruct a compound with **g^wio-* ‘life’.

³² It is possible that the paradigm of PIE **h₂óiu*, gen. **h₂iéu-s* (cf. Old Avestan *āiiu*, gen. *yaoš*) had a locative form with *e*-grade root such as **h₂éiu-i* or **h₂eiu-én* (cf. Hom. *αἰέν*), but this is difficult to prove or disprove. Another problem is that the exact reconstruction of *αἰεί* itself is debated: does this continue an *s*-stem dative-locative **h₂éiu-es-i* (cf. Doric *αἰές*, supposedly an endingless locative) with secondary oxytone accentuation, or is it the dative of the root noun (**h₂eiu-éi*, with generalized root vocalism)? An argument for **h₂eiu-éi* might be the fact that *αἰεί* in Homer frequently appears at verse end, with an irresolvable contraction of *-εἰ*. On the

Another potential objection is the following. If *αἰδῖος* is indeed an old compound, why is a word for such an important concept not attested in Homer or the later epic tradition? A possible answer may come from several fragments of pre-Socratic philosophers, which furnish the earliest attestations of *αἰδῖος*. In these fragments we find the following collocations:

ταύτην (sc. φύσιν τινὰ τοῦ ἀπειροῦ) **αἰδῖον εἶναι καὶ ἀγήρω**
(Anaximander, fr. 2 DK)
“and that (a certain element of the boundless) is eternal and unageing”

θαυμαστὸν δὲ ὅτι, κατὰ ἑτεροίωσιν τὴν ἀπ’ αὐτοῦ λέγων τὰ ἄλλα γίνεσθαι, αἰδῖον ὅμως αὐτὸ φησι λέγων· ‘καὶ αὐτὸ μὲν τοῦτο καὶ **αἰδῖον καὶ ἀθάνατον σῶμα**, τῶν δὲ τὰ μὲν γίνεται, τὰ δὲ ἀπολείπει’. (Diogenes of Apollonia, fr. 7 DK)
“Remarkably, when saying about transformation that everything else changes, he still calls this thing eternal, saying: “this thing itself is an everlasting and immortal body, and of the other things some come into being, while other things cease to be”.

ἀλλὰ τοῦτό μοι δῆλον δοκεῖ εἶναι, ὅτι καὶ **μέγα καὶ ἰσχυρὸν καὶ αἰδῖόν τε καὶ ἀθάνατον** καὶ πολλὰ εἰδός ἐστι (Diogenes of Apollonia, fr. 8 DK).
“but this seems clear to me, that it is great and vigorous and eternal and immortal and that it has a lot of knowledge”.

As a thematically relevant word, *αἰδῖος* is commonly applied also in other pre-Socratic philosophers such as Xenophanes and Melissus as a predicate of the supreme form of being (τὸ ἕν, τὸ ἄπειρον). The antiquity of *αἰδῖος* in this tradition is also guaranteed by its occurrence in a hexameter of Empedocles (fr. 115.48).

Anaximander’s *αἰδῖον ... καὶ ἀγήρω* is remarkable because it is directly reminiscent of the Homeric formula *ἀθάνατος καὶ ἀγήρω* |_B ‘immortal and unageing’.³³ The predicates ‘eternal’ and ‘immortal’ are obviously very close semantically; moreover, if Schwyzer’s etymology is correct, the original meaning of *αἰδῖος*, “ever-living”, is practically equivalent to that of *ἀθάνατος*, “undying”. Given the metrical equivalence of *ἀθάνατος* and *αἰδῖος*, it is conceivable that *αἰδῖος* was ignored in the Homeric epics because it was superfluous from the point of view of versification. Indeed, the author of the *Scutum* uses *αἰδῖος* not to qualify an immortal divine being, but an everlasting toil (*πόνος*):

other hand, it cannot be excluded that the epic tradition originally used *αἰῖ* at verse-end, and that *αἰεί* replaced this form in later stages of the tradition.

³³ Cf. also *ἀθάνατον καὶ ἀγήρων* |_B and *ἀγήρω* (τ’) *ἀθανάτω τε*.

οἱ μὲν ἄρ' αἰδίων εἶχον πόνον, οὐδέ ποτέ σφιν
 νίκη ἐπηνύσθη, ἀλλ' ἄκριτον εἶχον ἄεθλον. (Scut. 310–11)
 “they were engaged in eternal toil, and never was victory accomplished
 for them, but they were having a contest without decision”.

When Diogenes of Apollonia speaks of a σῶμα that is both αἰδίων and ἀθάνατον, this illustrates the near-equivalence of both terms in the context of bodies. In Homer, however, ἀθάνατος may refer not only to animate entities (divinities), but also to everlasting possessions like the δόμοι and κτήματα of Zeus (*Od.* 4.79). Indeed, the latter use is also found in later poets and in Herodotus (see *LSJ* s.v., sub II). It thus seems that ἀθάνατος was the traditional poetic (perhaps originally epic) way of saying ‘eternal, everlasting’. It is, of course, conceivable that philosophers like Anaximander and Diogenes deliberately innovated by replacing ἀθάνατος with αἰδῖος in order to stress the non-divine character of the universe about which they were speaking. But on the other hand, it cannot be excluded that it was Homer, or the epic tradition, who innovated by extending the semantic range of ἀθάνατος beyond its original and core meaning ‘immortal’. It is therefore quite possible that αἰδῖος was already part of the Ionic-Attic vernaculars before our first attestations but did not make it into the language of epic.

In sum, reconstructing αἰδῖος as a compound PGr. **aiwi-g^wio-* is attractive from a phraseological point of view, and it explains the lack of a separate feminine in the oldest attestations of αἰδῖος. In this way, we may avoid the difficulties involved in a derivation from pre-Homeric **aiwi* with the suffix -δῖος (it is unlikely that -δῖος was productive at that time).

3. The etymology of μινυθᾶδιος ‘short-lived’

The adjective μινυθᾶδιος (8x Hom., afterwards only in hexameter verse) mostly means ‘having a short life-span; short-lived’, especially in connection with a fated time of death. In Homer, this use is found 5x in total: *Il.* 21.84, *Od.* 11.307, *Od.* 19.328, as well as the following two illustrative examples:

μητέρα ἐπεὶ μ' ἔτεκές γε μινυθᾶδιόν περ ἐόντα (Il. 1.352)
 “Mother, since you have born me, short-lived as I am, ...” (Achilles to Thetis)

μινυθάδιος γὰρ ἔμελλεν
 ἔσσεσθ'· ἤδη γάρ οἱ ἐπόρνευε μόρσιμον ἡμᾶρ (Il. 15.612–13)
 “For he (Hector) was going to be short-lived; indeed, the day of doom
 was already coming at him”.

In the three remaining instances, μινυθάδιος has a more general meaning, ‘of short duration, short’. Two of these are found in a repeated phrase that occurs in connection with kills by Ajax. There, μινυθάδιος is predicated of αἰών ‘life span’:

μινυθάδιος δέ οἱ αἰών
 ἔπλεθ' ὑπ' Αἴαντος μεγαθύμου δουρὶ δαμέντι. (Il. 4.478–9 = 17.302–3)
 “And his life appeared to be of short duration, killed as he was by the
 spear of great-spirited Ajax”.

Even here, μινυθάδιος could have the meaning ‘short-lived’, for instance if we assume that αἰών means ‘vital force’ (for this meaning in Homer generally, cf. *Lfgre* s.v.). In the final instance at *Il.* 22.54–5, it is not impossible that μινυθαδιώτερον ἄλγος is a poetic coinage denoting a grief that is ‘more short-lived’.³⁴ It is therefore attractive to assume that ‘short-lived’ is the original meaning of μινυθάδιος. Now, since μίνυθα means ‘for a short while’, a reconstruction **minunt^ha-g^wio-* ‘short-lived’ < **“having a short life”* would fit exceptionally well from a semantic perspective.

One might object that adverbs are not normally used as first compound members. There are, however, parallels for this compound type in Homer, notably the counterpart δηναίος ‘long-lived’, which contains the adverb δῆν ‘for a long time’ and **aiw(o)-* ‘life (span), vital force’.³⁵ Moreover, the precursor of αἶδιος may have furnished a

³⁴ The passage runs as follows: εἰ δ' ἤδη τεθνᾶσι καὶ εἰν Αἴδαο δόμοισιν / ἄλγος ἔμῳ θυμῷ καὶ μητέρι τοῖ τεκόμεσθα· / λαοῖσιν δ' ἄλλοισι μινυθαδιώτερον ἄλγος / ἔσσεται, ἦν μὴ καὶ σὺ θάνης Ἀχιλλῆϊ δαμασθεῖς (Priam to Hektor about his sons Lycaon and Polydorus), “But if they are dead by now and in the house of Hades, then there shall be sorrow to my heart and to their mother, to us that produced them; but for the rest of the people sorrow will be briefer, if you do not die as well, slain by Achilles”. (*Il.* 22.52–55).

³⁵ For this reconstruction of δηναίος, cf. van Beek (2013: 147–8), *DELG* s.v. δῆν, *pace GEW* s.v. δῆν. For the opposition between μίνυθα and δῆν, compare the formulaic phrase |_T μίνυθά περ, οὐ τι μάλα δῆν (2x *Il.* 1x *Od.*), especially *Il.* 1.415–6 (Thetis to Achilles): αἴθ' ὄφελος παρὰ νηυσὶν ἀδάκρυτος καὶ ἀπήμων / ἦσθαι, ἐπεὶ νύ τοι αἴσα μίνυθά περ οὐ τι μάλα δῆν. These verses would contain a remarkable predicative use of μίνυθα in combination with αἴσα; one gets the impression that the poet intended to start the next line with an infinitive like ζῶειν, but then decided to do otherwise. This would yield a translation like the following: “since it is fated for you to live for a short time, not at all long”.

direct model for creating *μινυνθάδιος* as long as **aiwi* was still in existence as an adverb:

<i>*aiwi</i> ‘ever, continuously’	:	<i>*aiwi-g^wio-</i> ‘living forever, everlasting’
<i>*minunt^ha</i> ‘a short while’	:	X = <i>*minunt^ha-g^wio-</i> ‘living a short while’

4. The etymology of *ρήϊδιος* ‘easy’

As has long been noted, the formation of *ρήϊδιος* (Attic *ράδιος*) is secondary. This becomes clear from paradigmatically or derivationally related forms: the adjective has primary forms of comparison, Attic *ράων*, *ράστος* (adv. *ράον*, *ράστα*); Homeric *ρήϊστος*.³⁶ Moreover, the adverb *ρήϊδίως* competes with a more basic form *ρέϊα* (*ρέᾶ* with quantitative metathesis; Att. *ρᾶ* with contraction).³⁷

How was *ρήϊδιος* derived, and what is the origin of *-ίδιος*? Wackernagel (1897: 11–12) already observed that the adverb *ρήϊδίως* makes for the great majority of Homeric occurrences,³⁸ and concluded that the adjective *ρήϊδιος* was backformed to this adverb.³⁹ The base form for *ρήϊδίως*, according to Wackernagel, was **ρήᾱ* (> Hom. *ρέϊα*, *ρέα*). This conclusion is accepted in the main etymological dictionaries (*DELG*, *GEW* and *EDG*, all s.v. *ρᾶ*). However, it remains unclear

³⁶ The comparative forms *ραδιέστερος* and *ραότερος* occurring in Attic are clearly secondary (cf. Wackernagel 1897: 11). Contra Wackernagel, however, the Homeric forms *ρήϊτερος* and *ρήϊτατος* are probably secondary creations of epic Greek. A parallel for their formation is the Homeric comparative *λωίτερος* ‘better’ (beside Attic *λώων*, Hom. n. *λώιον*), which looks like an artificially lengthened form before the bucolic dieresis.

³⁷ A root **wrāh-* can be reconstructed on the basis of the Aeolic forms *βρᾶ/βρά* (preserved in *grammarians*) and *βραϊδίως* (Alc. fr. 129.22, Theoc. 30.27), cf. Wackernagel (1897: 14). The form *ρήᾱ* in Alcaeus is an epicism, and the subscript iota in *βρά/ρά* can be analogical (cf. Seiler 1950: 72–3). There is a good chance that the root is inherited from PIE, but there are no clear Indo-European cognates, and the original positive form of the adjective is unknown. I do not understand why the gloss *ραιβίας*: *ἄζήμιος δῆμος* (Hsch.), adduced by Wackernagel (1897: 10), would belong with *ρήϊδιος*.

³⁸ In Herodotus, too, only the adverb *ρήϊδίως* is used. For the lack of a positive form beside the adverb *ρέϊα*, cf. *μάλα* ‘very, much’, *ήκα* ‘softly, a little’.

³⁹ Indeed, ‘easy’ typically modifies verb forms; the adjective, in three of its four occurrences in Homer, is used predicatively and governs an infinitive, ‘S is easy to V’: cf. *ρήϊδιον δὲ θεοῖσι ... / ἡμὲν κυδῆναι θνητὸν βροτὸν ἠδὲ κακῶσαι* ‘it is easy for gods either to glorify a mortal man or to cause him trouble’ (*Od.* 16.211–2), *ὡς οὐ ρήϊδι ἔστι θεῶν ἐρικυδέα δῶρα / ἀνδράσι γε θνητοῖσι δαμήμεναι οὐδ’ ὑποείκειν* ‘that the glorious gifts of the gods are not easily overcome by mortal men; nor do they easily give way’ (*Il.* 20.265–6), and *τάφρος / εὐρεῖ, οὐτ’ ἄρ’ ὑπερθορέειν σχεδὸν οὔτε περῆσαι / ρήϊδίη* ‘a wide trench, easy neither to jump over from close by, nor to traverse’ (*Il.* 12.52–4).

what motive there would have been for creating a new adverbial form ῥῆιδίως beside the already existing and synonymous *ῥῆα. An alternative scenario would be that ῥῆιδίος was first created in adjectival function precisely because the original positive to ῥῆίων, ῥῆϊστος had been lost; after that, the new adverbial form ῥῆιδίως started to compete with the traditional adverb *ῥῆα. Since both predicative and attributive usage of the adjective ῥῆιδιος are attested in Attic and already in Homer (cf. *LSJ* s.v.), the alleged primacy of the adverb ῥῆιδίως is not compelling.

There are also problems with the model assumed to have influenced the creation of ῥῆιδίος. The parallels cited by Wackernagel have -διος rather than -ίδιος: μινυνθάδιος to μίνυνθα, διχθάδιος to διχθά. On this basis, one would expect that the resulting adjective was *ῥῆάδιος > *ῥειάδιος. Moreover, from the discussion in section 2. above, it appears that in pre-Homeric times there was no other form in -ίδιος that could have plausibly served as a model for ῥῆιδίος. On the other hand, it is well-known that a substitution of -ι- (in ῥῆι-) for adverbial -α (in ῥεῖα) was at home in the ‘Caland system’ of derivations, which was inherited from PIE.⁴⁰ This substitution is not normally found when secondary suffixes (such as -διος) were added, but only when a primary formation was used as a first compound member. Thus, even if we accept that a productive deadverbial suffix -διος already existed in pre-Homeric times, this does not account for the linking vowel in ῥῆι-. An old compound, on the other hand, would easily resolve this issue.

Wackernagel (1897) argued that an archaic first compound member **wrāhi-* is preserved in Attic ῥάθυμος ‘light-hearted, easy-tempered; indifferent’.⁴¹ I propose that **wrāhi-* is also continued in ῥῆιδίος < **wrāhi-g^wio-* ‘with relaxed/eased force’, with βίη ‘force, exertion’ < **g^wiā* as its second member.⁴² This compound would be quite close to ῥάθυμος: both θυμός and βίη belong to the semantic field of ‘force’.

⁴⁰ Another example is πυκι-μῆδης ‘clever’ beside πυκνός (also πυκινός) ‘dense, compact’ and the adverb πύκα ‘solidly’.

⁴¹ Further derivatives are ῥάθυμέω ‘to be idle, neglect’, ῥάθυμία ‘relaxation, taking things easily; idleness, laziness’ (Th., E.+). The manuscripts often have ῥάθυμος, ῥάθυμία, etc. (with *ā*); as Wackernagel realized later (1907: 26), it is equally possible that the adverbial form ῥῆα- is older in these compounds and that ῥῆα- is due to influence of ῥῆιδίος and its forms of comparison. This would leave **wrāhi-* in ῥῆιδίος without direct inner-Greek support, but this does not affect the fact that **wrāhi-* could be an archaic ‘Caland’ first member in **i-*.

⁴² Theoretically, -διος could represent not only **g^wiā-* ‘force’, but also **g^wio-* ‘life’. From the point of view of phraseology, we could compare the syntagm assumed to underlie ῥῆιδίος < **wrāhi-g^wio-* with the Homeric formula θεοὶ ῥεῖα ζῶοντες

4.1. Evidence from Homeric phraseology

An important argument in favor of this reconstruction comes from Homeric phraseology. First of all, it is typical for epic poetry to stress that obtaining victory (νίκη, νικάω) in a contest or in battle requires the application of βίη, ‘force’ or ‘effort, exertion’. Thus, Hesiod contrasts νικήσας ... βίη with the lack of effort (ῥεῖα φέρει) required after one has obtained victory:⁴³

νικήσας δὲ βίη καὶ κάρτει, καλὸν ἄεθλον
 ῥεῖα φέρει χαίρων τε, τοκεῦσι δὲ κῦδος ὀπάζει. (Th. 438–9)
 “... having obtained victory by his force and strength, he carries home a beautiful prize without effort and with high spirit, and to his parents he gives pride”.

Against this background, it is salient that a number of instances of ῥηϊδίως appear in connection with victory in a battle or contest, e.g. ἐνίκα ῥηϊδίως (Il. 4.390, 5.808).⁴⁴

More phraseological support is found in the following famous simile, where a thirsty lion meets a boar and fights with it over a waterhole:

ὥς δ’ ὅτε σὺν ἀκάμαντα λέων ἐβήσατο χάρμη,
 ὃ τ’ ὄρεος κορυφῆσι μέγα φρονέοντε μάχεσθον
 πίδακος ἄμφ’ ὀλίγης· ἐθέλουσι δὲ πιέμεν ἄμφω·
 πολλὰ δέ τ’ ἀσθμαίνοντα λέων ἐδάμασσε βίηφιν
 ὥς πολέας πεφνόντα Μενoitίου ἄλκιμον υἱὸν
 Ἴκτωρ Πριαμίδης σχεδὸν ἔγχεϊ θυμὸν ἀπηύρα (Il. 16.823–8)
 “And as a lion overwhelms an untiring boar with his fighting spirit, when the two fight with high spirits on the peaks of a mountain over a tiny spring: both are eager to drink; and the lion subdues the boar, heavily panting, with his might; so from the valiant son of Menoetius, after he had slain many, did Hector, son of Priam, take away life, from close by with his spear”. (translation slightly adapted from Wyatt 1999)

‘the gods who live an easy life’ and the noun phrase ῥήιστη βιοτή (Od. 4.565). However, this example stands isolated in Homer, where verbs governing ῥηϊδίως normally denote a (potentially) troublesome activity, so that the adverb can accordingly be translated as ‘without trouble’, ‘with little effort’ (see below). Therefore, it is clearly preferable to connect ῥηϊ-δίως with βίη.

⁴³ In epic Greek, ῥεῖα/ῥέα and ῥηϊδίως are used interchangeably, at least in the meaning ‘with little effort’.

⁴⁴ Cf. also ἀφείλετο νίκην ῥηϊδίως “he easily takes away victory” (Il. 16.689–90, 17.177–8), οὐ κε μάλα ῥέα νικήσει’ “he would not win without effort” (Il. 20.101–2). The figure of litotes seen in the final example occurs a couple of times with ῥηϊδίως and ῥέα in Homer.

In this simile, the poet compares Hector to a lion and Patroclus to a fierce boar. Both are thirsty.⁴⁵ The amount of effort on both sides of this struggle is clearly expressed: the boar pants heavily, and the lion overwhelms it (ἐβύησατο 16.823) only due to his greater corporeal strength or might (ἐδάμασσε βίηφιν 16.826). A few lines later, however, when Hector boasts to Patroclus that he himself (αὐτός 16.834) has killed him and thereby saved Troy, Patroclus retorts that it is Zeus and Apollo who have subdued (δάμασσαν 16.845) him. The point is clearly that where Hector relied on his βίη, the gods did not need to apply much effort:

ἦδη νῦν Ἴκτορ μεγάλ' εὖχεο· σοὶ γὰρ ἔδωκε
 νίκην Ζεὺς Κρονίδης καὶ Ἀπόλλων, **οἱ με δάμασσαν**
ῥήδιως· αὐτοὶ γὰρ ἅπ' ὤμων τεύχε' ἔλοντο. (Il. 16.844–6)
 “See, Hector, how you are boasting now: for it is Zeus son of Kronos and Apollo who gave you victory, they who subdued me without effort: for they themselves took the armor from my shoulders”.

The gods are so superior that they do not have to exert themselves in order to smash a hero or accomplish a marvelous deed. Similarly, a lion does not have to exert himself at all when killing a fawn: he crushes it between his jaws without much effort, ῥήδιως συνέαξε (Il. 11.114). By contrast, all the lion’s forces are required to vanquish a thirsty boar. Thus, the original meaning of βίη (‘force, effort, exertion’) can still be read in many instances where ῥήδιως qualifies an action that either required great effort, or might have required it from a mere human perspective.⁴⁶

From the passages just discussed, we may reconstruct a piece of phraseology ‘[SUBDUE] [with EFFORT]’ and a counterpart ‘[SUBDUE] [with LITTLE EFFORT]’.⁴⁷ They offer strong support for the etymological reconstruction of ῥήδιος proposed here.

⁴⁵ A bit earlier, Hector and Patroclus had been fighting over the body of Cebriones like two *hungry* lions who fight over a killed deer (16.756–761). The two similes are clearly cognate (see Janko 1993 *ad* 16.756–8 and 823–6).

⁴⁶ Cf. τὸν δ’ οὐ κε δύ’ ἀνέρε δήμου ἀρίστω / ῥήδιως ἐπ’ ἄμαξαν ἅπ’ οὐδεὸς ὀχλίσειαν “not even the two best men of the people could easily push it from the ground onto a wagon” (Il. 12.448–9), οὐδέ κ’ ὀχῆα / ῥεῖα μετοχλίσειε θυράων ἡμετεράων “neither could he easily thrust back the bar of our doors” (Il. 24.566–7), ῥήδιως ἀφελὼν θυρεὸν μέγαν “taking away the great door-stone without effort” (Polyphemus, *Od.* 9.313), etc., and further examples in *Lfgre* (s.v.).

⁴⁷ The same phraseology reappears at ὡς οὐ ῥήδι’ ἐστὶ θεῶν ἐρικυδέα δῶρα / ἀνδράσι γε θνητοῖσι δαμήμεναι οὐδ’ ὑποεῖκεν. (Il. 20.265–6), i.e. the gifts of the gods ‘cannot easily be overcome or evaded’ by mortal men.

4.2. *The stringing of the bow*

The connection between ῥηϊδιος and βίη also offers new perspectives on the bow-stringing contest in the *Odyssey*. It all starts when Penelope sets out the contest (ἄεθλον): whoever strings the bow most easily (ῥηϊτατ' ἐντανύση βιόν 21.75, where βιός may perhaps retain its original meaning 'bowstring', cf. *LfggrE* s.v.) and then shoots an arrow through twelve axes will obtain her as a lawful wife. The suitor Antinous immediately remarks that in his opinion, the bow cannot be easily strung, οὐ γὰρ οἶω / ῥηϊδίως τόδε τόξον ἐϋξοον ἐντανύεσθαι (*Od.* 21.91–2). The first contender to stand up is Telemachus:

στῆ δ' ἄρ' ἐπ' οὐδὸν ἰὼν καὶ τόξου πειρήτιζε.
 τρίς μὲν μιν πελέμιζεν ἐρύσσεσθαι μενεαίνων,
 τρίς δὲ μεθήκε βίης, ἐπιελόμενος τό γε θυμῷ,
 νευρῆν ἐντανύειν διοϊστεύσειν τε σιδήρου.
 καὶ νύ κε δὴ ἐτάνυσσε βίη τὸ τέταρτον ἀνέλκων,
 ἀλλ' Ὀδυσσεὺς ἀνένευε καὶ ἔσχεθεν ἰεμένον περ. (*Od.* 21.124–29)
 “Then he went and stood upon the threshold and began to try the bow. Three times he made it quiver in his eagerness to draw it, and three times he relaxed his effort, though in his heart he hoped to string the bow and shoot an arrow through the iron. And now he would finally have strung it with his might, as for the fourth time he tried to draw up the string – but then Odysseus nodded in dissent, and checked him in his eagerness”.

Here, βίη clearly means ‘applied force, exertion, effort’.⁴⁸ Stringing the bow, i.e. stretching the bowstring in between the two ends (νευρῆν ἐντανύειν), requires the application of all one’s force (βίη, cf. also βίηφι in line 315). The recurring phraseology, which is continued throughout the 21st book of the *Odyssey*, is:

τανύω [STRETCH] + βίη, βίηφι [with FORCE]

It is likely that this phraseology is part of a traditional formulaic system for describing similar bow-contests.⁴⁹ The use of the compound ῥηϊδιος in such contexts may well be traditional; there is reason to believe that the phraseology was more widespread. First of all, the

⁴⁸ This could suggest that βιός ‘bowstring’ and βίη ‘exertion’ are etymologically related, as two opposing forces.

⁴⁹ See also: οὐδ' ἐδύναντο / ἐντανύσαι, πολλὸν δὲ βίης ἐπιδευέες ἦσαν “they could not string it, as they were much lacking in strength” (*Od.* 21.184–85); ἀλλ' εἰ δὴ τοσσόνδε βίης ἐπιδευέες εἰμὲν / ἀντιθέου Ὀδυσῆος, ὃ τ' οὐ δυνάμεσθα τανύσαι / τόξον “but if we are lacking so much strength with respect to godlike Odysseus that we cannot string his bow” (*Od.* 21.253–55); αἶ χ' ὁ ξεῖνος Ὀδυσσῆος μέγα τόξον / ἐντανύση χερσὶν τε βίηφι τε ἦφι πιθήσας “if the stranger will string the great bow of Odysseus, relying on his arms and his strength” (*Od.* 21.314–5).

hemistich of *Od.* 21.124 also occurs in the *Iliad* (τρὶς δὲ μεθῆκε βίης *Il.* 21.177), when Asteropaeus, who is out of weapons, tries to draw Achilles' spear out of the river bank in which it is fixed, and is killed by Achilles after having tried three times. Secondly, just before the bow contest starts, the same phrase is applied to the stringing of a musical instrument:

ὥς ὄτ' ἀνὴρ φόρμιγγος ἐπιστάμενος καὶ ἀοιδῆς
 ῥηϊδίως ἐτάνυσσε νέω περὶ κόλλοπι χορδῆν (Od. 21.406–7)
 “as when a man, who knows how to handle the phorminx and to sing,
 easily stretches a chord around a new peg”.

Seen in this light, it can hardly be accidental when at *Od.* 21.328 (and, slightly modified, also at *Od.* 24.177) we encounter the following phrase:

ῥηϊδίως ἐτάνυσσε βίον
 “he (Odysseus) strung the bow without effort”.

Whereas the suitors apply all their βίη in their attempts to string the bow (and do not even succeed), Odysseus the hero stretches the bow ‘easily’ or ‘with little effort’. This is another piece of phraseological evidence to support the reconstruction **wrāhi-g^wio-* “with relaxed/eased force”.

4.3. ῥεῖα/ῥέα vs. ῥηϊδιος: semantics

Given the above passages, one might ask whether there is a semantic difference between ῥηϊδίως and ῥεῖα at all. According to O’Sullivan (*LfgrE* s.vv.), there is no distinction: he translates both as “*easily, without (great) effort or difficulty*, with reference to both physical and non-physical activities, procedures”. Indeed, ῥεῖα can be used in the same way as ῥηϊδίως:

ῥεῖα δέ κ' ἀκμηῆτες κεκμηότας ἄνδρας αὐτῆ
 ὄσαιμεν προτὶ ἄστυ νεῶν ἄπο καὶ κλισιάων (Il. 16.44–5)
 “Without effort, full of vigor as we would be, would we push back tired
 men [even] with our battle cry towards the city, away from the ships and
 tents”.⁵⁰

⁵⁰ Moreover, it could be argued that the formula ῥεῖα ζῶντες ‘living an easy life’ (said of the gods) refers to a life without exertion or toil. But then again, ῥεῖα could also simply mean ‘relaxed’.

However, an interesting difference between ῥηϊδίως and ῥεῖα/ρέα appears when we consider the variety of actions that are qualified with the latter form of the adverb in Homer. It appears that ῥεῖα often modifies the verb for recognizing, γνω-: ῥεῖα δ' ἀρίγνωτος Διὸς ἀνδράσι γίγνεται ἀλκή (*Il.* 15.490), ῥεῖά τ' ἀριγνώτη πέλεται (*Od.* 6.108, cf. further *Od.* 4.207, 6.300, 17.265), ῥεῖ' ἔγνωσ (*Od.* 17.273), ἴχνια ... ῥεῖ' ἔγνωσ (*Il.* 13.71–2). On the other hand, ῥηϊδίως never modifies the verb of recognition in Homer. Furthermore, a phrase like ῥεῖα λαθῶν ‘easily escaping notice’ (*Il.* 9.477, *Od.* 17.305) does not have a counterpart with ῥηϊδίως. One suspects that in such cases, the original meaning of the root of ῥεῖα has been preserved, which may have been something like ‘light’ or ‘relaxed’.

On the other hand, the distributions do not allow us to completely separate ῥεῖα and ῥηϊδίως. For instance, ῥεῖα is also used to qualify verbs denoting a physical activity that requires exertion or toil: ῥεῖα μετοχλίσσειεν ‘he would easily thrust back’ (*Il.* 24.567, *Od.* 23.188) can be compared with the following passage, where ῥηϊδίως stands beside ῥεῖα:

τὸν δ' οὐ κε δὴ ἀνέρε δήμου ἀρίστω
ῥηϊδίως ἐπ' ἄμαξαν ἀπ' οὐδεὸς ὀχλίσσειαν
 οἴοι νῦν βροτοὶ εἰς· ὁ δέ μιν **ρέα** πάλλε καὶ οἶος. (*Il.* 12.448–9)
 “and [even] the two best men of the people could not easily have pushed it (a heavy stone) from the ground onto a wagon, of men as they are now; but he easily pushed it even on his own”.

Furthermore, in a simile that compares Ajax to a boar, both are said to scatter their enemies without much effort:

κύνας θαλερούς τ' αἰζηοὺς
ῥηϊδίως ἐκέδασσεν, ἐλιζάμενος διὰ βήσσας·
 ὧς υἱὸς Τελαμῶνος ἀγανοῦ φαίδιμος Αἴας
ρέα μετεισάμενος Τρώων **ἐκέδασσε** φάλαγγας (*Il.* 17.282–5)
 “[a wild boar] easily scatters dogs and vigorous youths as it whirls through the glades; likewise brilliant Ajax, son of proud Telamon, easily scattered the lines of the Trojans as he pursued them”.

Finally, the use of the adjective ῥηϊδίη in the following lines,

εὐρεῖ', οὐτ' ἄρ' ὑπερθορέειν σχεδὸν οὔτε περῆσαι
 ῥηϊδίη τάφρος
 (“a broad ditch, not easy to jump over from close by, nor to traverse”, (*Il.* 12.52–4)

can be compared to that of the adverb ῥεῖα/ρέα in καὶ ὑπέρθορον ἔρκιον ἀύλης / ῥεῖα (*Il.* 9.476–7) and ἵπποι δὲ ῥέα τάφρον ὑπερθορέονται ὀρυκτὴν (*Il.* 8.179).

Thus, ῥεῖα and ῥήϊδιος can be used in the exact same constructions, but at the same time, the meaning of ῥήϊδιος seems to have been such that it could not always be substituted for ῥεῖα. This suggests that the implication was originally one-way: the adverb ῥήϊδιος still more or less retains its etymological connection with βίη, serving as a metrical alternative for ῥεῖα *mostly* in the meaning ‘without great effort’. On the other hand, ῥεῖα could originally be used (and continues to be used like this in Homeric Greek) in both meanings: 1. ‘easily’ and 2. ‘without great effort’.

Indeed, there are only two places in Homer where no physical exertion is involved in a verbal action qualified as ῥήϊδιος. When the Achaean embassy starts moving towards Achilles, they pray that they may easily persuade his heart with the gifts they carry (ῥήϊδιος πεπιθεῖν, *Il.* 9.184). In the phrase ῥήϊδιόν τοι ἔπος ἐρέω καὶ ἐνὶ φρεσὶ θήσω (*Od.* 11.146, mirrored in *h.Ap.* 534), a ῥήϊδιον ἔπος either means ‘a word easy to follow/understand’ or ‘a word spoken without difficulty’ (the speaker is the seer Teiresias). In Hesiod, by contrast, ῥήϊδιον often has no connection with force, e.g. ῥήϊδιον γὰρ ἔπος εἰπεῖν ... ῥήϊδιον δ’ ἀπανήνασθαι (*Op.* 453–4); for further instances see *Lfgre* s.v.

4.4. The genesis of ῥήϊδιος

It is remarkable that there are no normal, ‘secondary’ forms of comparison to ῥάδιος.⁵¹ This can only mean that ῥάων and ῥᾶστος are the older forms, and that the adjective ῥάδιος replaces an older positive that was lost. The most plausible scenario, in my view, runs as follows. The positive adjective, whatever its shape was, had been lost early on. Only the positive of the adverb **wrāha*, which was more frequent and morphologically different, was retained. In the comparative and superlative, adjectival forms **wrāhion-*, **wrāhisto-* (> ῥάων, ῥᾶστος) continued to exist because the adverbs were derived from this same stem.⁵² A parallel case where only the adverb of the positive

⁵¹ Pollux *Onomasticon* (5.107) ascribes ῥαδιώτερος to Hyperides, but otherwise this comparative form is never used.

⁵² The analogical creation of ῥηῖτερος, ῥηῖτατος as alternative forms of comparison, which was no doubt favored by metrical considerations, might also have been helped by the existence of compounds with ῥηῖ-. Another secondarily created form of comparison in Homer, λωῖτερον beside λωῖον ‘better, more favourable’, was

stem is retained is Homeric ἦκα ‘gently’ < *‘weakly’ beside comparative ἦττων ‘worse’ < *‘weaker’ (κακός supplied a new positive adjective). As a second step, the old compound **wrāhig^wio-* (> ῥηϊδῖος / ῥάδιος) was used as a new positive adjective corresponding to **wrāhion-*, **wrāhisto-*. At the same time, **wrāhig^wiōs* > ῥηϊδίως / ῥαδίως was also frequent as an adverb meaning ‘with little effort’. It thus competed with **wrāha* > ῥεῖα / ῥέα / ῥᾶ, which was retained longer but was eventually ousted by the productive adverbial form ῥαδίως (thus certainly in Attic, where ῥᾶ is attested only twice). In Homer, this replacement is still on its way: as we have seen, ῥηϊδίως is almost always used in contexts dealing with the use of physical force.

If the compound was coined as an adjective, which nouns did it qualify? This is difficult to determine. In Attic, there is only little evidence for attributive use of the adjective: in most attestations, it is used predicatively (e.g. ῥάδιόν ἐστιν + inf. ‘it is easy to ...’). In Homer, there is only one instance of attributive use: ῥηϊδῖον ... ἔπος (*Od.* 11.146), which has been variously interpreted as a word ‘easy to fulfill’, ‘easy to understand’ or ‘easy to speak’.⁵³ Still, the phrase ῥηϊδῖον ... ἔπος may give us a hint to what happened. Given the well-known opposition between ἔργα and ἔπεα, it would not be far-fetched to assume that the compound was used early on in noun phrases like ῥηϊδῖον ἔργον ‘work of little effort’, i.e. an easy job, which would make excellent sense in the context of our etymology. The one-time existence of such a phrase ῥηϊδῖον ἔργον is indeed supported by the compound ῥαδιουργός ‘lazy, unscrupulous, reckless’ (Arist., with further secondary semantic developments), which is well-entrenched in Attic.⁵⁴ Both this compound and the noun phrase ῥηϊδῖον ἔργον could be nominalizations of one and the same verb phrase meaning ‘to perform a job without effort’, where the adverb was used.⁵⁵ It might also be relevant that ῥαδιο- in composition is found in ῥαδιουργός (where it makes etymological sense), but not in ῥάθυμος (where it wouldn’t).

also induced by metrical conditions and possibly helped by the pair δεξιός beside δεξιτερος ‘right; favourable’ (cf. the discussion in Dieu 2011: 231–3).

⁵³ In my view, ‘easy to speak’ is the most plausible interpretation, as the phrase refers to an utterance of the prophet Teiresias. It is characteristic of prophets that they are not in doubt about their formulations, which come from up high.

⁵⁴ We also find the comparative ῥαδιουργότεραι ‘performed without caution’ (*vel sim.*, referring to sacrifices and opposed to ἀγναί at X. *Smp.* 8.9), a derived verb ῥαδιουργέω ‘to live an easy life, take things easily’ (X., opposed to προνοεῖν ‘take precautions’ and φιλοπονεῖν ‘to work hard’) and an abstract ῥαδιουργία ‘laziness, sloth, self-indulgence’ (X.).

⁵⁵ Cf. for this verb phrase ῥηϊδίως γάρ κεν καὶ ἐπ’ ἤματι ἐργάσσαιο (*Hes. Op.* 43).

As far as I can see, the only potential objection to the compound analysis **wrāhi-g^wio-* ‘with light force’ would be the existence of a motional feminine form ῥηϊδίη (Hom.), ῥαδία (Att.). This issue can be resolved without much difficulty by noting that ῥηϊδιος was no longer analyzed as a compound when it started to function as the positive corresponding to ῥάων, ῥᾶστος. That a new motional feminine was formed is unsurprising for a form that mainly occurs as an adverb and was relatively rare as an adjective.

5. The creation of διχθάδιος, πανρίδιος, and μαψιδίως

Let us now consider some remaining forms in -διος with old attestations. The adjective διχθάδιος ‘twofold’ beside the adverb διχθά ‘in two parts, apart’ is formally completely parallel to μινυνθάδιος beside μινυνθα. As we have seen, the origin of the -δ- in διχθάδιος was judged to be “moins claire” by Chantraine (1933: 39). This rare adjective only occurs in two Homeric passages. The first (and famous) one shows a clear relation to questions of life and death:

μήτηρ γάρ τέ μέ φησι θεὰ Θέτις ἀργυρόπεζα
διχθαδίας κήρας φερέμεν θανάτιο τέλος δέ. (Il. 9.410–11)
 “for my mother, the goddess Thetis silver-foot, says that I carry a twofold doom towards the end of death”.

In the other passage, there is no such connection; here, the poet uses the neuter plural διχθάδια as an adverb:

ὧς ὁ γέρον ὄρμαινε δαϊζόμενος κατὰ θυμὸν
διχθάδι, ἢ μεθ’ ὄμιλον ἴοι Δαναῶν ταχυπόλων,
 ἦε μετ’ Ἀτρεΐδην Ἀγαμέμνονα ποιμένα λαῶν. (Il. 14.20–22)
 “Thus the old man’s thoughts, as he was torn apart in his heart, went in two directions, whether he would go with the throng of the swift-horsed Danaans, or with the son of Atreus, Agamemnon, herdsman of his people”.

The epic adverb διχθά, on the other hand, occurs twice in Homer:

διχθά δέ μοι κραδίη μέμονε φρεσὶν ὀρμαίνοντι (Il. 16.435)
 “My heart strives in two directions as I reflect”.

Αἰθίοπας, τοὶ **διχθά δεδαίαται** (Od. 1.23)
 “the Ethiopians, who are divided in two groups”

The two phrases ὄρμαινε δαϊζόμενος κατὰ θυμὸν / διχθάδι (Il. 14.20–1) and διχθά ... κραδίη μέμονε φρεσὶν ὀρμαίνοντι (Il. 16.435) are so

much alike that one of them may have served as the model for creating the other. The latter phrase is likely to be the primary one for several reasons. Not only is διχθά a more basic form, but διχθάδι(α) is also used in enjambment with the preceding line, filling up the first dactyl of the line; it is followed by the disjunctive conjunction ἢ, which normally stands in the arsis, marking the first of two alternatives. In other words, the fact that διχθά was one syllable short in front of a second foot starting with ἢ yielded a strong metrical motive for creating an artificial form.

As for the model for creating διχθάδιος, I suspect that it was influenced by μινυνθάδιος. Not only do μινυνθα and διχθά share the ending -θα; it is also remarkable that διχθαδίας κήρας (*Il.* 9.411) and μινυνθάδιος both appear in the context of Achilles' fate of death. It may not be devoid of interest either that κήρ f. 'doom' sounds like κῆρ n. 'heart': in both passages with διχθά and διχθάδι' just discussed, a hero is affected at heart (κατὰ θυμόν; φρεσίν; the subject of μέμονε at *Il.* 16.435 is κραδίη). It seems conceivable that διχθαδίας κήρας provided the stimulus for artificially creating the extended adverbial form διχθάδι'.

For the form μαψιδίως there are no indications that it was a compound in origin. The word qualifies actions or activities that are carried out without a cause or purpose, such as the suitors feasting on food and wine without an occasion, idle behavior generally, the wandering of pirates, and being angry without a proper cause (Alcinous at *Od.* 7.310). Thus, μαψιδίως may be glossed as 'lightly, without a cause'. At the same time, μάψ may also have this meaning (e.g. when referring to lightly-sworn oaths, μάψ ὀμόσαιμι *Il.* 15.40).⁵⁶ It is therefore conceivable that an association of μάψ with ῥηϊδίως 'easily' gave rise to the creation of μαψιδίως.⁵⁷ This influence was favored by the fact that μάψ and μαψιδίως are usually found under the same metrical conditions as ῥεῖα (*ῥῆα) and ῥηϊδίως, namely verse-initially. If this is correct, μαψιδίως must be a relatively recent extension of μάψ, and this would indeed match the numbers of attestation of both words: the *Iliad* has only 2 instances of μαψιδίως against 7 of μάψ, while the *Odyssey* has 7x μαψιδίως but only 2x μάψ.

⁵⁶ Cunliffe s.v. μαψιδίως determines the meaning as 'idly, thoughtlessly, frivolously, lightly' and identifies it with one meaning of μάψ.

⁵⁷ Thus, Risch's remark that "ῥηϊδίος und μαψιδίος gehören zusammen" (1974: 123) is true not only from a morphological perspective, but also semantically.

The adjective παυρίδιος, finally, is a hapax in early Greek epic:⁵⁸

ἀλλ' ὅτ' ἄρ' ἠβῆσαι τε καὶ ἠβης μέτρον ἵκοιτο
παυρίδιον ζώεσκον ἐπὶ χρόνον, ἄλγε' ἔχοντες
 ἀφραδίης: ... (Hes. *Op.* 132–4)
 “But when they were to become adults and the stage of adolescence
 reached them, they would live for a brief time [only], having troubles
 because of their recklessness: (...)”.

This form probably arose when παυρός ‘small’ was influenced by another word in -ίδιος. In the same metrical position (verse-initially) we find the adverbs ῥηΐδίως and μαψιδίως, but these are not particularly close semantically. Closer is μινυθᾶδιος ‘short-lived’, but in assuming its influence the -ι- of παυρίδιος would be left unexplained. The most likely scenario was proposed by Chantraine (1933: 39): παυρίδιος arose under influence of αἰδῖος. This presupposes that αἰδῖος was known to Hesiod, but that is unproblematic (it is attested in the pseudo-Hesiodic *Scutum*).

6. Potential further evidence for *g^wi > δι

We have so far collected the following evidence for a development *g^wi > δι: αἰδῖος ‘eternal’, μινυθᾶδιος ‘short-lived’, and ῥηΐδιος ‘easy’. Αντίδιος (beside αντίβιος ‘adverse, aggressive’) might also be adduced in support, but as a personal name does not constitute cogent evidence by itself. The adjectives αιφνίδιος, διχθάδιος, παυρίδιος and the adverb μαψιδίως can be explained as secondary analogical creations. In view of the low number of examples of -διος/-ίδιος in Homer and the lack of a plausible alternative, its use as a de-adverbial suffix may have started from cases like αἰδῖος, μινυθᾶδιος, ῥηΐδιος.

Some further evidence for *g^wi > δι that has been mentioned in previous treatments remains to be dealt with. I will first evaluate the proposed etymological reconstructions of ἴδιος and of the Homeric forms δινωτός, ἀμφιδεδίγηται. After that, I will discuss the probative value of the Heracleian participle ενδεδιωκοτα and other possible West Greek evidence.

⁵⁸ There is another hapax in -διος: the adverb αὐτόδιον (αὐτόδιον δ' ἄρα μιν ταμὴ λούσασθαι ἀνώγει *Od.* 8.449) ‘immediately, forthwith’. Wackernagel (1916: 41–2) explained it as a compound with ὁδός ‘way’, meaning something like “straightaway”, with preservation of psilosis in a compound. Although this seems uncertain to me, I have no better explanation to offer.

6.1. The etymology of ἴδιος

The oldest proposal is to derive this word from the pronoun **sue* with a suffix **-dios*. This etymology is subject to two problems: first, vowel raising (or assimilation) **hwedio-* > **hwidio-* has to be assumed, but in spite of Schwyzer 1930: 222–4 and 1939: 256, there are no really convincing parallels for this development. Secondly, the expected initial aspiration is lacking in Attic (Argolic attests *híδιος*, but this might perhaps have a secondary aspiration; influence of ἕκαστος has been assumed). A derivation from the preverb reflected in Skt. *ví* ‘asunder, apart’ was then proposed by Brugmann (1904), and Hirt (1927: 328) glossed the reconstructed form **uí-dios* as ‘abgesondert lebend’. Schwyzer (1939: 301), followed by other scholars, took this to imply a reconstruction **uí-g^wios*.⁵⁹

A pre-form with **uí-* would explain the absence of initial aspiration in Attic ἴδιος, but it remains problematic that the preverb in question, which is not attested outside of Indo-Iranian, may well continue **h₁ui-* (from earlier **dui-* ‘in two’ by dissimilation), in which case the expected Greek reflex would be ***ëi-*.⁶⁰ In addition to this, Schwyzer (1930: 322–4) draws attention to the fact that **-dio-* does not exist as an inherited suffix (cf. section 1). Schwyzer therefore takes up the older derivation from **sue*, but now reconstructing a pre-form **sued-io-* based on the ablative in **-d* of the personal pronoun (as continued in Skt. *mád*, *tvád*, Old Lat. *med*, etc.). He notes that this pre-form would also better explain the Argive form *ῥηδιστας* ‘free man’ (assumed to have replaced **ῥηδιώτᾱς* after a word like *τελέστᾱς* ‘official’, which is attested in Elean), but admits not to be able to explain the lack of aspiration in Ion.-Att. ἴδιος.

In conclusion, both etymological connections of ἴδιος (with Skt. *ví* and with the pronoun PIE **sue*) both have their problems. The word cannot therefore be used as evidence for the behavior of **g^wi*.

6.2. Homeric *δινωτός* and *ἀμφιδεδίνηται*

As most scholars agree,⁶¹ Homeric *δῖνωτός* must be compared first of all with Myc. *qe-qi-no-me-no* and *qe-qi-no-to*. The meanings do not, however, form a one hundred percent match. As García Ramón (1999:

⁵⁹ Schwyzer seems to be the first to reconstruct a labiovelar for ἴδιος and ἀίδιος; the sources he refers to, Hirt 1927 and Vaillant 1927, do not say this explicitly. From Schwyzer 1939, the idea found its way into later scholarship, for instance Lejeune 1972, Stephens & Woodard 1986.

⁶⁰ Cf. Lubotsky 1994.

⁶¹ See e.g. Jones 1958; Heubeck 1966; Hajnal 1998: 22–4; García Ramón 1999.

238) notes, the Mycenaean term refers to ornamentation of manufactured prestige objects; the accompanying instrumentals denote a motive or figure (e.g. *to-qi-de* ‘with a spiral’, *a-di-ri-ja-te* ‘with a human figure’). This suggests that *qi-no-* refers to a certain technique of ornamentation, e.g. engraving or carving. In two (out of three) occurrences of Homeric δινωτός, however, the accompanying instrumental refers to a material (ῥινοῖσι βοῶν καὶ νόροπι χαλκῶ / δινωτήν, of a shield, *Il.* 13.407–8; δινωτήν ἐλέφαντι καὶ ἀργυρῶ, of a sofa, *Od.* 19.56), and there is no reference to motives.⁶² Interestingly, in Mycenaean an instrumental denoting a material is used with the *a-ja-* technique (inlaying), not with the *qi-no-* technique. As García Ramón notes, it is difficult to be precise about the meaning of Homeric δινωτός: it may generally mean ‘ornamented’, ‘artfully worked’ or the like.

Notwithstanding these differences, however, the use of Hom. δινωτός is close to that of Myc. *qe-qi-no-me-no*: both are used to denote an ornamentation of prestige objects. Therefore, an etymological relation is plausible: an old term of Mycenaean technical vocabulary was retained, misunderstood, and reanalyzed within the epic tradition.⁶³

It remains problematic, however, that a pre-form **g^wmōto-* is expected to yield Homeric ***βίνωτός* on the strength of βίος ‘life’ and βίη ‘force’. Heubeck (1966: 236) tried to circumvent this problem by pointing at the parallel of Heracleian ενδεδιωκοτα, where **g^wī* also yielded δī. However, as García Ramón (1999: 241) remarks, ενδεδιωκοτα cannot be used as primary evidence for the labiovelar developments in Ionic-Attic, because it stems from another dialect group.⁶⁴ Following Jones (1958: 115), García Ramón then explains the outcome δίνωτός with the idea that the expected regular outcome ***βίνωτός* would be too close to the Ionic-Attic verb βινέω ‘to copulate’. On this basis, he assumes that “die lautgesetzliche Entwicklung entweder prophylaktisch oder nachträglich modifiziert wurde. Die alte Form **g^wmō-* wurde also zu δίνω-(τός) umgewandelt durch Anpassung an der Sippe von δινέω “(sich) drehen, wirbeln” (...).”

⁶² In the third and final attestation, the locative dative δινωτοῖσι λέχεσσι (*Il.* 3.391, referring to the bed of Paris), the word merely functions as an epithet and could denote any sort of decoration.

⁶³ “muss man mit Sicherheit mit dem Verlust der ursprünglichen Bedeutung und mit einer Umdeutung in homerischer Synchronie rechnen”. (García Ramón 1999: 239). Cf. also Hajnal 1998: 22–4.

⁶⁴ García Ramón is of the opinion that “ἀίδιος, ῥήϊδιος und δίαίτα haben keine sichere Etymologie” (1999: 241 n. 21) and suggests (ibid. with n. 23) that δ- in the Heracleian form might be due to an unattested present stem διο- < **deo-* < **g^weih₃-(o/e)-* corresponding to the Homeric future βέομαι. Although this suggestion is ingenious, it is rather costly – and unnecessary, as we will see below – to hypothesize the existence of another present stem beside ζῶω (Hom.+).

This analysis is in my view not entirely satisfactory. First of all, a hypothetical **βίνωτός* could not easily have been misunderstood as a form of *βινέω* because the long-vocalic stem of the latter verb ended in *-η-*, not *-ω-*. The question is, moreover, whether a secondary adaptation to *δινέω* in *both* form and meaning is likely. Semantically, a connection with *δινέω* is unnecessary for explaining *δινωτός*: García Ramón insists that *δινωτός* may evoke the idea of circular or whirling ornaments,⁶⁵ but the Homeric passages contain no hint in this direction, and the suggestion remains purely etymological.

Another important form in this connection is *ἀμφιδεδίνηται*. It occurs twice in Homer, both times in descriptions of manufactured objects that are given as prestige gifts:

δώσω οἱ θώρηκα, τὸν Ἀστεροπαῖον ἀπηύρων
 χάλκεον, ᾧ περὶ χεῦμα φαεινοῦ κασσιτέροιο
 ἀμφιδεδίνηται· πολέος δέ οἱ ἄξιός ἔσται. (Il. 23.560–2)
 “I will give him the armour that I took from Asteropaeus, the bronze one,
 around which a cast of shining tin has been artfully worked(?) on both
 sides. It will be worth a lot to him”.

δώσω οἱ τόδ’ ἄορ παγχάλκεον, ᾧ ἐπὶ κόπη
 ἀργυρέη, κολεὸν δὲ νεοπρίστου ἐλέφαντος
 ἀμφιδεδίνηται· πολέος δέ οἱ ἄξιόν ἔσται. (Od. 8.403–5)
 “I will give him this sword, all bronze, with a silver handle, and the
 sheath of newly-sawn ivory has been artfully worked(?) on both sides. It
 will be worth a lot to him”.

It is difficult to see how *ἀμφιδεδίνηται* would relate to *δινέω* ‘to whirl’ from a semantic point of view. It is much closer semantically to *δινωτός* and Myc. *qe-qi-no-me-no* (especially in the second passage). If this connection is correct, however, it must have been morphologically influenced by *δινέω* (replacement *ω* > *η*). What exactly happened is difficult to determine, but my guess would be as follows. At first, the forms *δινωτός* and **ἀμφιδεδίνωται* came about by regular phonological developments. Then, after part of their meaning had been bleached, **ἀμφιδεδίνωται* may have changed into *-δεδίνηται*, especially if such a form already existed as the middle perfect of *δινέω* ‘to whirl around, go in a circle’. A further change of meaning of *δινωτός* to ‘turning; twisted’ took place only in post-Homeric poetry, also under the influence of *δινέω*.

⁶⁵ “Für hom. *δινωτός* lässt sich also eine relativ vage Bedeutung ansetzen, etwa “(irgendwie) verziert, gearbeitet”, die eventuell auch kreisläufige Bewegung (*δινεῖν*), “Wirbel” (*δίνη, δίνος*) als Dekorationsmotiv evoziert”. (García Ramón 1999: 243).

If the above scenario is correct, ἀμφιδεδίνηται (for earlier *ἀμφιδεδίνωται) could be adduced as another instance of the sound change discussed here: **g^wi* > *δι* in internal position. Moreover, independent of this interpretation of ἀμφιδεδίνηται, *δι* as the reflex of **g^wi* in initial position in *δινωτός* can be understood if this form was still paradigmatically connected with the middle perfect **g^we-g^wīnō-* (a productive pattern) when the sound change **g^wi* > *δι* took place. This scenario provides a viable alternative to García Ramón's idea that the expected outcome **βίνωτός was avoided for reasons of taboo.

6.3. **g^wi* > *δι* in West Greek dialects

The behavior of **g^wi* in West Greek dialects is remarkably similar to that observed in Ionic and Attic. As far as the distribution between labial and palatalized outcomes is concerned, the same holds for Arcadian, though this dialect preserves the letter *san* to represent an earlier stage of the palatalization, presumably /ts/. Cases where the two groups diverge, such as Ionic ὀβελός versus West Greek and Arcadian οδελος, are rare. This fact is most easily explained by assuming that the labiovelar treatments form an isogloss uniting the non-Aeolic dialects: the developments took place when the West Greek tribes had migrated into the Peloponnese in the early Dark Ages.

Instances of **g^wi* > *δι* in West Greek dialects may therefore reflect a development shared with Ionic-Attic. The perfect participle ενδεδιωκοτα can be the regular outcome of **en-g^we-g^wīō-* if we assume the same rules for Heracleian as for Ionic-Attic. It is true that **g^wi* > *δι* is not expected in various other forms of this verb (where **g^wi* was initial), but word-internal **g^wi* would also have been available in the augmented forms of the aorist (cf. intransitive ἐβίωv, sigmatic ἐβίωσα) and in the middle perfect. We may therefore simply be dealing with two different levellings in Heracleian and Ionic-Attic: the latter dialect has ἐμβιώω 'to become established; take root (of plants)'.⁶⁶

Another instance of **g^wi* > *δι* in West Greek might be the use of -διος and/or -ίδιος as a means to derive adjectives from local adverbs. In section 1 we have seen that this derivation is attested exclusively in West Greek dialects. It is remarkable that two out of four attestations

⁶⁶ In my view it is unlikely that -διω- owes its δ to an unattested athematic present stem **διο-* < **δεο-* < **g^weih₃-e/o-* (supposedly also continued in the Homeric future βέομαι), as suggested by García Ramón (1999: 241). Another view is that δ- originated in the present stem **g^wīō-* > *δω-* (a development in Laconian, to which Heracleian is closely related), after which the aorist βίω- was reshaped as *διω-* (Francis 1973). This also seems rather artificial.

of this derivation are liable to an analysis as original compounds with **-g^wios* ‘living’:

- Cretan ενδοθιδιαν δῶλαν ‘household slave’ may originally have denoted a slave ‘living inside (the house)’ (locative ενδοθι ‘at home’);
- Locrian υπαπροσθιδιῶν literally means ‘of the former inhabitants’ (πρόσθε ‘before’).

Epidaurean ενδοσθιδια ‘entrails’ and Syracusan ὀπισθιδια (said of a fish) do not lend themselves to such an analysis, but they might represent a secondary extension of -διος as a suffix. It could be assumed that -διος was originally used with local adverbs denoting a place of residence, and later reinterpreted as a general deadverbial suffix.

7. Labiovelar developments in Ionic-Attic: a new perspective

The main pieces of evidence for the outcomes of **k^wi*, **g^wi* and **k^{wh}i* in Ionic-Attic have been listed in the Introduction. The main problem has always been to provide a phonetic and/or phonological explanation of the divergence between palatalized **k^wi* > τι and non-palatalized **g^wi* > βι and **k^{wh}i* > φι. There is as yet no generally accepted explanation for this divergence.⁶⁷ I will now first summarize previous attempts and after that consider the implications of the etymologies just proposed.

7.1. Previous explanations for the divergence **k^wi* vs **g^wi*, **k^{wh}i*

The literature on labiovelar developments in Greek, including that on the aberrant non-palatalized outcomes of **g^wi* and **k^{wh}i*, is extensive. A convenient summary of older positions is given by Uguzzoni (1986); the most recent treatment of the problem of **k^wi* versus **g^wi*, **k^{wh}i* is Parker (2013).

A first approach has been to view the words with βι, φι < **g^wi*, **k^{wh}i* as Aeolic borrowings. This suggestion has been broadly rejected,⁶⁸ and for good reasons: βίος ‘life’, βία ‘violence’ and ὄφις ‘snake’ are normal words in Ionic-Attic. The main focus has therefore been on phonetic explanations of the divergence. In this respect, there are two

⁶⁷ “There is no obvious explanation” (Sihler 1995: 164).

⁶⁸ Cf. Stephens & Woodard 1986: 134, attributing the idea to Bechtel 1892. See also the criticism by Wathélet 1970: 88–9.

issues: the divergent treatment of **k^wi* on the one hand and **g^wi*, **k^{wh}i* on the other, and the question why *i*- and *e*-vowels have a different palatalizing effect (**k^we*, **g^we* and **k^{wh}e* seem to always palatalize).⁶⁹

As for the latter point, Pedersen (1939: 290–1) suggested that the palatalization of high front vowels may have been undone; for such a development he refers to his own Jutland dialect where /k, g/ are realized as [kj, gj] before the mid vowels /e, æ/ but as [k, g] before the high vowels /i, y/. Such an explanation, however, does not explain the divergence between **k^wi* and **g^wi*, **k^{wh}i*. For this problem, Allen (1958: 122–3) suggested that only **k^wi* (and not **g^wi*, **k^{wh}i*) underwent an early palatalization so as to fill the gap left by the assibilation of **ti* > *σι*. Whatever one’s opinion on structuralist views of phonological developments, Allen’s proposal does not explain why **k^wi* > *τι* also took place in West Greek dialects (which preserve **ti*) and it fails to take into account that **ti* was actually preserved word-initially, which (ironically) is the only environment for which we actually have evidence for **k^wi* > *τι*.⁷⁰

Parker (2013) has recently combined a number of these previous suggestions. In order to explain why **k^wi* behaves differently from **g^wi*, **k^{wh}i* and why it palatalizes also in Aeolic dialects, he assumes an early round of palatalization affecting only **k^wi*, noting that voiceless stops are more liable to palatalization than voiced and aspirated stops. Then, the remaining labiovelars changed their labial coarticulation [w] into a labio-palatal feature [ʷ] before all front vowels; this happened in all dialects except Lesbian, Thessalian and Boeotian. This change was phonologized when the labio-palatal feature was delabialized before mid-front vowels: [kʷε] > [kʰε], etc. This last development did not take place before high front vowels, however, because the sequence [ʲi] is “cross-linguistically disfavored” (Parker 2013: 223). In words that retained this labio-palatal feature, it was subsequently “interpreted as a predictable allophonic variant of the labial” (ibid.); after learners had restored the labial feature, these cases joined the other remaining labiovelars in their development to labials.

While Parker’s solution fits the data as listed in most handbooks (according to which βι was the only regular outcome of **g^wi*), it appears from the preceding discussion that there is strong evidence for

⁶⁹ With the important exception of ὀβελός ‘spit’, on which see below.

⁷⁰ There have been various other attempts. For instance, Arena (1969: 27) holds that the divergence between **k^wi* and **g^wi* is only apparent, suggesting that the non-palatalization of **g^wi* in βίος, βίος, and βίη is due to the dissimilatory effect of a following sub-phonemic intervocalic palatal glide. This cannot be correct because it does not explain the palatalized outcome in *ἄϊδιος*, *ρήϊδιος*, and *μινυνθάδιος*, which have the same intervocalic palatal glide.

palatalization of $*g^wi$. Such cases are left unexplained by Parker's appeal to the cross-linguistically disfavoured status of [ʲi]. We therefore have to look for factors that may have conditioned or blocked the palatalization $*g^wi > \delta i$. Why did some cases of $*g^wi$ undergo palatalization (presumably via an intermediate stage like [gʲi]), and why did other instances remain unaffected?

That there were other factors influencing the palatalization of labiovelars is suggested by the so-called ἄσπετος-rule: labiovelars before front vowels were not palatalized when preceded by a sibilant.⁷¹ Concerning the conditions of $*g^wi > \delta i$, previous scholars have taken two relevant positions, as we have seen in the Introduction. Schwyzer (1939: 301) proposed a general distinction between non-palatalizing word-initial $*g^wi$ - and palatalizing word-internal $*g^wi$. A problem with this view is that ὄφις does not show palatalization of word-internal $*k^{wh}i$: it is unlikely that the feature [+aspirate] would inhibit palatalization of the stop. Moreover, from a phonetic viewpoint it remains to be specified why $*g^wi$ would be less liable to be palatalized word-initially than word-internally.

A second explanation goes back to Hamp (1960), who noted that ἴδιος, Ἀντίδιος, αἴδιος all have an *i* preceding $*g^wi$, and suggested that this factor conditioned the palatalization. His suggestion was followed by Stephens & Woodard (1986: 145–6), who also include Heracleian ἐνδεδιωκοτα and extend the conditioning environment to any front vowel preceding $*g^wi$. They offer typological parallels for preceding vowels conditioning palatalization and also note that the same conditioning cannot be excluded for the development of $*k^{wh}i$ (ὄφις with a preceding back vowel being the only available example).

7.2. Some new observations

We may conclude from ὄφις versus αἴδιος, μινυθάδιος, ῥηίδιος that the distinction between word-internal and word-initial position is unlikely to have served as a conditioning factor (as was proposed by Schwyzer). Furthermore, it seems worthwhile to investigate (with Stephens & Woodard 1986) whether the preceding segment may have conditioned labiovelar palatalization. Indeed, if word-internal $*g^wi$ was always palatalized, the question arises why $*k^{wh}i$ does not palatalize in ὄφις 'snake, serpent', the only piece of evidence for this sequence. It would be natural, as Stephens & Woodard argue, if the distinction between preceding front and back vowels played a role.

⁷¹ Cf. σβέννυμι 'extinguish' < $*sg^wes-$, ἄσπετος 'immense' < $*\eta-sk^w-eto-$, and probably πρέσβυς 'old man', pl. πρεσβῆες. For discussion, see Hackstein 2002: 144.

There are, however, a couple of issues with their proposal that need to be addressed. First, if μινυνοθάδιος ‘short-lived’ is from **minunt^ha-g^wios*, it would be counterexample to the conditioning they propose: it has palatalization after the back vowel /a/. This problem can be resolved by assuming that μινυνοθάδιος was coined after its antonym ἀΐδιος ‘everlasting’ after labiovelar palatalization, but at a stage when the outcome of **aiwi* still existed in Ionic (or the epic tradition).

Another problem concerns the assumed identical treatment of **g^wi* and **k^{wh}i*. It would be more natural if the aspirated labiovelar **k^{wh}* behaved like its voiceless counterpart **k^w*, because aspirated stops show the same behavior as voiceless stops in Greek more often. In the case of the assibilation **t^(h)i* > σι, for instance, the voiceless stops behave differently from their voiced counterpart (which is preserved as δι). Similarly, the palatalization of **-t^(h)i-* yields a different outcome from the palatalization of **di*, and it is chronologically earlier. Now, considering the entire etymological evidence, it appears possible to assume that **k^wi* and **k^{wh}i* behave in the same way. We have evidence for **k^{wh}i* only in word-internal position (ὄφις), and the only reliable evidence for **k^wi* is word-initial. The only potential piece of evidence for word-internal **k^wi* is ὄπις, and it could be analyzed in exactly the same way as ὄφις. As I will now demonstrate in a small excursus, however, the etymology of ὄπις is not at all secure.⁷²

The noun ὄπις has two interrelated meanings:

1. in Homer and other early epic poets, it denotes divine retribution for human transgressions (e.g. οὐδ’ ὄπιδα τρομέουσι θεῶν *Od.* 20.215);
2. in other texts from the archaic and classical periods (both poetry and prose) it denotes the care for the gods or the respect they are paid (“soui des dieux, le respect qui leur est porté”, *DELG* s.v.; for this, cf. οὔτε δαιμόνων οὔτε θεῶν ὄπιν ἔχοντας *Hdt.* 9.76) and more generally respect for guests and strangers. This sense is also found in the denominative verb ὀπίζομαι ‘to heed’.

The main etymological dictionaries (*GEW*, *DELG*, *EDG* s.v.) accept a connection with **h₃ek^w-* ‘see’, advocated by Porzig 1941: 352; the idea is that a word for ‘gaze’ developed into ‘(divine) punishment’ in

⁷² It has also been suggested that the root ὀπ- ‘see’ was analogically reintroduced into ὄπις, replacing the palatalized outcome (cf. Miller *apud* Stephens & Woodard 1986: 139). However, even if one follows the traditional etymology of ὄπις, this would not be likely because the lexicalization of the meanings ‘retribution’ and ‘care’ (from ‘observation’) would have to be relatively old.

its first meaning, and via ‘observance’ to ‘respect, restraint’ in the second. In addition, it is assumed that the verb ὀπίζομαι ‘to heed’ influenced the second meaning of the noun. Although this etymology is possible in principle, there is another attractive option.⁷³ The Vedic verbal root *SAP* means ‘to take care of, observe, honour’, and ὄπις, being a poetic word, could also be derived from this root with psilosis. There appears to be a lot to say in favour of this alternative etymology.

Within Greek, the verb ἔπω ‘to be busy with sth.’ (cognate with Indo-Iranian **sap-*) and its compounds have meanings that match those of ὄπις excellently. The active ἐφέπω generally means ‘to ply, apply oneself to, deal with’ and may, importantly, denote divine punishment: αἱ τ’ ἀνδρῶν τε θεῶν τε παραιβασίας ἐφέπουσιν ‘who punish transgressions of men and gods’ (Hes. *Th.* 220). It also qualifies divinities who take care of a place, e.g. ὄς τοῦτ’ ἐφέπεις ὄρος (Pi. *Pyth.* 1.30, of Zeus overseeing Mt Etna). In the middle, this verb may refer to the agreement or approval of the gods, cf. ἐπὶ δ’ ἔσπονται θεοὶ ἄλλοι ‘and if the other gods will approve of it’ (*Od.* 12.349). Another poetic prefixed verb, ἀμφιέπω/ἀμφέπω, means ‘to go about’ (e.g. fire around a kettle), and thence ‘to take good care of; keep or treat carefully’. Likewise, in classical prose περιέπειν τίνα means ‘to treat someone (well or badly; with respect; etc.)’.

In Vedic, on the other hand, the root *SAP* often takes *ṛtám* ‘truth, the right way’ (RV 1.67.8a, 1.68.4b, 2.11.12b, etc.) or the gods as its object; that is, it has the same meaning and sphere of application as Greek ὄπις (cf. θεῶν ὄπιν in Hdt. 9.76, quoted above). The connection between *SAP* and *ṛtá-* is of Indo-Iranian date in view of Avestan parallels (see Mayrhofer *EWAia* s.v. *SAP*) and also reflected in the compound *ṛtasápa-* (7x RV) ‘performing pious actions’.

It is indeed very easy to derive ὄπις from a verb of this form and meaning. The basic meaning to be assumed for an action noun of the shape PGr. **hopi-* is ‘treatment, handling, taking care of’. A noun of this meaning may have developed into ‘care, respectful treatment’ on the one hand, but also (as a euphemism) into ‘retribution’, as when a hitman is told to “take care” of a certain person. In this way, the new etymology explains the dual semantics of ὄπις: human treatment of the sacred, divine upkeep of order.

Returning to our phonological issue: it is possible that the reflex of **k^{wh}i* was part of the same development as that of **k^wi*. For **k^wi* we

⁷³ This idea goes back to a question posed to me by Andrea Covini after my presentation of an abridged version of this paper at the 2nd *Indo-European Research Colloquium* in Würzburg (1 April, 2016).

only have evidence for the word-initial treatment, but no evidence for word-internal treatment. For $*k^{wh}i$ our only example is word-internal: ὄφις, where the palatalization may have been blocked by the preceding back vowel.

Only in the case of $*g^wi$ do we have evidence for both word-initial and word-internal position. Since the conditioning proposed by Stephens & Woodard is based on limited evidence, let us turn to the outcome of word-internal labiovelars followed by mid front vowels more generally. The complete evidence for non-analogical and indisputable reflexes of word-internal $*k^we$, $*g^we$, $*k^{wh}e$ is as follows:⁷⁴

- ἀδελφεός ‘brother’ (Hom.+; Att. ἀδελφός) < $*sm-g^welb^hes-ó-$ ‘one from the same womb’;⁷⁵
- ἀδήν, gen. -ένος ‘gland’ < PGr. $*ng^wén-$ (~ Lat. *inguen*);
- πέντε ‘five’ < PIE $*penk^we$;
- ὀβελός ‘spit’ (Hom., Att.), Boeot. οβελος, Thess. οβελλος, but Cret., Arc., Delph. οδελος < PGr. $*og^weló-$ (etymologically isolated).

The scarcity of evidence for this environment has been noted before,⁷⁶ but when taken at face value, it shows that palatalization is not found after an *o*-vowel in ὀβελός, and that it was the normal development elsewhere, including after /a/. With its labial outcome, ὀβελός is often explained away as an Aeolic borrowing,⁷⁷ but this assumption is not independently motivated. If we add our newly discovered examples of $*g^wi > δι$, the picture stays the same: palatalization occurs before /i/ in ἀΐδιος, μινυνθάδιος and ῥήϊδιος, and before /e/ in ἀδελφεός and ἀδήν, but no palatalization occurs in ὄφις and ὀβελός.

A natural phonetic explanation would be that /o/, the most backward vowel occurring before labiovelars and the only rounded one, inhibited their palatalization before any front vowel. This can be motivated phonetically: the first stage of labiovelar palatalization was probably the change of the labial co-articulation [ʷ] into a labio-

⁷⁴ We can of course exclude all evidence for root-final labiovelars followed by an ablauting vowel *e* ~ *o*, as in σέβεται ‘shuns, reveres’ < PIE $*tjeg^w-e/o-$ or neuter *s*-stems like ἔπος ‘word’.

⁷⁵ In view of the lexicalized status of this term it seems unlikely that -δ- was analogically restored from the word for ‘womb’.

⁷⁶ See Rix (1992: 87); cf. also Lejeune’s remark (1972: 47), “du traitement dental devant *ē*, on n’a guère d’exemples qu’à l’initiale du mot” (emphasis in original).

⁷⁷ Cf. Wathélet (1970: 69), Stephens & Woodard (1986: 133 n. 4). Lejeune (1972, section 34 n. 4) speaks of a direct or indirect borrowing from an Aeolic dialect into Attic (by ‘direct’ he presumably means a loan from Boeotian, by ‘indirect’ an epic Aeolism).

palatal feature [ʲ]. This fronting may have been counteracted by a preceding rounded back vowel.

If this explanation of Attic ὀβελός is correct, it implies that the labiovelar developments in Ionic-Attic, though generally comparable to those in West Greek and Arcadian, were different in detail. An advantage of this scenario is that word-internal labiovelar sequences behave in a uniform way. All front vowels have the same palatalizing effect on a preceding labiovelar. Only in word-initial position does *g^wi- have a special outcome different from that of *k^wi-, *k^we-, *g^we- (however this is to be explained). Another benefit is that the behavior of voiceless and aspirated labiovelars may be analyzed in the same way: the only evidence for *k^whⁱ is word-internal (ὄφης), while for *k^wi all examples are word-initial. Exceptional behavior is shown by the voiced labiovelars, where word-initial *g^wi- yields a different outcome from *g^we-.

8. Conclusions

The following etymological results have been obtained or corroborated:

- ἄϊδιος ‘eternal’ derives from PGr. *aiwi-g^wio- ‘living forever’, as already proposed by Schwyzer (1939: 301);
- μινυθάδιος ‘short-lived’ derives from PGr. *minunt^ha-g^wio- ‘living briefly’. It may have been analogically created within the epic *Kunstsprache*, based on the model *aiwi → *aiwidio-;
- ῥηΐδιος ‘easy’ originated as a compound PGr. *wrāhi-g^wio- ‘with light force/effort’ containing the root of βία ‘violence’;
- ὄπις may derive from the root *sep- ‘to treat, handle’ and can no longer be used as evidence for labiovelar developments.

Concerning the development of the labiovelars in Ionic-Attic, the following general results have been reached:

- contrary to the most widespread view (e.g. Rix 1992, Sihler 1995, García Ramón 1999), *g^wi normally palatalized in word-internal position, but not word-initially.
- Stephens & Woodard (1986) were right in claiming that the preceding segment influenced the outcome of word-internal labiovelars. It is unlikely, however, that preceding front vowels *caused* palatalization: for we also find a palatalized outcome of

labiovelars after /a/ in ἀδελφεός, ἀδῆν, and perhaps μινυνθάδιος. In the new formulation proposed here, palatalization before any front vowel in Ionic-Attic was inhibited by a preceding rounded back vowel /o/. This allows us to explain the labial outcome in ὀβελός and ὄφις in one time, without taking recourse to the weakly motivated assumption of interdialectal borrowings.

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