

Reflexes of **r* in *καρτερός*, *κράτος* and Related Forms

Introduction

Among the evidence for the regular outcome of **r* in Ionic-Attic, the root of *καρτερός*, *κρατύς*, *κράτος* and related forms is of crucial importance. Several formations have doublets, the most prominent ones being *καρτερός* ~ *κρατερός*, *κράτος* ~ *κάρτος*, and *κράτιστος* ~ *κάρτιστος*. In chapter 1, we have seen that the forms with -αρ- are troublesome for accounts arguing for a regular development **r* > -ρα- in Proto-Ionic, in view of the full grade attested in Aeol. *κρέτος* and Ion. *κρέσσω*. Indeed, by a process familiar from chapter 4, forms like *κράτος* have secondarily introduced an analogical zero grade *κρατ-* from a related adjective, replacing the original full grade *κρετ-*. This is a very important argument for viewing -αρ- as the regular reflex.

However, the analysis of doublets like *καρτερός* ~ *κρατερός* is complicated by two issues that must be clarified before we draw this conclusion. One approach to such doublets has been to claim that *κρατ-* and *καρτ-* were freely interchangeable allomorphs.¹ This is in my view an *ad hoc* strategy designed to save the idea of a regular development **r* > -ρα-. For one thing, it does not explain why doublets are attested only for a subset of the attested formations. For instance, the adjective *κραταιός* has no by-form **καρταιός*, in spite of the fact that using *κραταιός* in hexametrical Greek necessitated the use of *muta cum liquida* scansion, an uncommon phenomenon in Homer. Moreover, some variants appear to be limited to specific genres: for example, *καρτερός* never occurs in prose.

Apparently, then, doubles with *καρτ-* beside *κρατ-* could be created only under certain conditions. One main goal of this chapter is to show, by a fresh etymological analysis of the evidence, in which respective formations the root shapes *κρατ-* and *καρτ-* originated and by which mechanisms they spread. This analysis is reinforced by a close consideration of synchronic derivational relations: once we take the lexical meanings of base form and derivative into account, we may infer with more plausibility that certain formations were analogically or even artificially created in the epic language. For instance, we will see that the epic form *κάρτος* is only used as an adjectival abstract meaning

1 For instance, Lejeune (1972: 196) invokes a “mobilité générale” of liquids within the syllable; Strunk (1975: 286) remarks that “inlautendes -αρ- < **r*- vor Konsonant (...) auch sonst gelegentlich statt oder neben -ρα- vorkommt”.

‘strength, violence’ (i.e. the fact of being *καρτερός* ~ *κρατερός*), and that it never means ‘power’ or ‘superiority’, the default meanings of *κράτος*. This strengthens the idea that *κάρτος* was derived from *καρτερός* within Epic Greek.

A second question is: how certain are we about the original shape of the full grade? Two different etymologies have been proposed. The mainstream view holds that *κράτος* is related to the Indo-Iranian noun meaning ‘will-power’ (Ved. *krātu-* m.); an alternative proposal (Lamberterie 1990: 346–353) compares Goth. *hardus* ‘hard’ and derives the Greek and Germanic words from PIE **kert-* ‘cut’. The second proposal is problematic in view of the root shape of forms like Aeol. *κρέτος*, but Benveniste (1969: 11, 71–83) suggested that the Greek group may be a conflation of both roots, and thus have a dual etymological origin. Benveniste based this suggestion on the semantics of *καρτερός* (and its doublet *κρατερός*), the adjective that seems to have served as the derivational basis of most other attested formations.

If Benveniste’s thesis were correct, it could be assumed that the vocalization of **ɣ* (and hence the emergence of two root allomorphs *καρτ-* and *κρατ-*) took place at a time when these roots were still lexically distinct. Thus, if we wish to utilize forms like *καρτερός* as evidence for the regular reflex of **ɣ*, we must be able to exclude a dual etymological origin as proposed by Benveniste, or at least to render this idea unlikely. For this purpose, a careful study of the semantics of the attested forms will be necessary.

5.1 Semantics and Etymology

In this section, I will first review the existing etymologies and their problems, and explore the semantics of *καρτερός* ~ *κρατερός* in more depth. The analogical spread of *κρατ-* and *καρτ-* across the attested formations will be studied in section 5.2.

5.1.1 *The Competing Etymologies*

There is no generally accepted etymology for *κρατερός* and related forms. Since the early days of Indo-European studies, the Greek lexical family has been compared to two different formations.² On the one hand, the epic adjective *κρατύς* has been equated with Goth. *hardus* ‘hard’ and its Germanic cognates,

² As far as the Greek evidence is concerned, previous treatments include Trümper (1950: 202 ff.), Frisk (*GEW* s.v. *κράτος*), Benveniste (1969), Strunk (1975), Breuil (1989), Lamberterie (1990: 323–353). For an overview of the older literature, see Strunk (1975: 265–266).

the root of which is PIE **kert-*. On the other hand, it has been compared to an isolated Indo-Iranian masculine noun, Ved. *krātu-* m. ‘will-power, resolve’ and Av. *xratu-* ‘id.’, a *u*-stem to a different PIE root of the shape **kret-*.³

The connection with Goth. *hardus* is advocated by Lamberterie (1990: 323–350). On the basis of an extensive discussion of the Greek attestations and their semantics, he claims that the basic meaning of *κατερός* and *κρατός* can be reconstructed as ‘hard, firm, solid’.⁴ He proposes (1990: 349) to derive the Greek and Germanic forms from the verbal root PIE **kert-* ‘to cut’.⁵ The semantic development would lead from ‘cutting’ to ‘sharp’ and then, independently in Greek and Germanic, to ‘hard’.⁶ However, there are serious problems with this etymology. For one thing, the root of the Germanic adjective (quasi **kortú-*) has a different full grade slot compared to Aeol. *κρέτος*, Ion. *κρέσσων*.⁷ Moreover, as I will argue below, it is unlikely that ‘hard, solid, firm’ is the basic meaning of the Greek group.

The second etymology, a comparison of the adjective *κρατός* with Ved. *krātu-*, has been advocated by Strunk (1975). In the framework of internal derivation, this proposal is nowadays accepted without hesitation.⁸ It is to be noted, however, that *κρατός* is attested only in the epic formula *κρατὺς Ἀργεΐφόντης*, the meaning of which cannot be determined with certainty (the widely-used translation ‘strong’ may well be off the mark). Strunk (1975: 269–270) argued that *κρατός* in this formula must have referred to a characteristic trait of Hermes, such as cleverness, quick wits, or dexterity, and he claims that an older meaning of PIE **krétu-* was ‘magical power’. However, even if we suppose

3 The meaning of the Indo-Iranian word has been much discussed; the best rendering seems to be ‘will-power, resolution, resolve’ (German *Entschlossenheit*), which is close to a basic meaning of *βουλή* in Homeric Greek. The connection with *κρατός* is accepted by Mayrhofer (*EWAla* s.v. *krātu-*), Risch (1974), and also (with some hesitation) by Frisk (*GEW* s.v. *κράτος*).

4 Lamberterie (1990: 336) concludes that “les emplois de *κατερός* concordent avec ceux de *κρατύω*: l’un comme l’autre amènent à restituer pour *κρατός*, par reconstruction interne, le sens de «dur, ferme, solide».”

5 Attested as a verbal root in Hitt. *kartae-zi* ‘to cut off’, Ved. *kart* ‘to cut (off), split, break’ (pres. *kṛntáti*, them. aor. *kṛtá-*, both RV+), Lith. *kiṛsti* ‘to hew, hit, cut’ (pres. 1sg. *kertù*), and PSlav. **čersti* ‘to carve, slash’ (ORu. *čvrsti*), and probably in Hom. *ἔκερσε* ‘cut (off)’.

6 Lamberterie convincingly derives Lith. *kartūs* ‘bitter’ from the same root, from earlier ‘sharp, biting’ (comparing Lith. *kiṛstas* ‘sharp’, of persons). The Germanic and Baltic forms agree in having *o*-vocalism of the root; but as Strunk (1976) remarks, *o*-vocalism of the root can be old in neuter nouns (cf. *δόρυ*, *γόνυ*), but hardly in an adjective. According to Lamberterie (1990: 349) it was secondarily adopted from a related action noun of the type *φόρος*, attested in Lith. *kaṛtas*, OCS *krats* ‘once, time’ < **kórt-o-* (*‘cutting’).

7 This problem is not discussed by Lamberterie.

8 For example Nussbaum (1998: 147), Widmer (2004: 123 ff.).

that magic played a role in Indo-Iranian **krátu-*, this is rather implausible for the Greek concept of *κράτος*.⁹

There is also a morphological problem: the side-by-side existence of an adjective (*κρατύς*) and a derivationally isolated noun (Ved. *krátu-*) requires an explanation. Strunk envisaged two possible ways to connect them. On the one hand, he considers the possibility that the Indo-Iranian noun was originally an adjective. He deems this unlikely, because Ved. *krátu-* is inflected according to a different accent and ablaut paradigm (gen. *kratváh*, ins. *kratvā́*) compared to the adjectives in *-ύς* (gen. *-έος*). Strunk therefore suggested that *κρατύς* may have originally been an abstract noun. Assuming that the formula *κρατύς Ἀργεΐφόντης* is comparable to cases like βίη Ἡρακληΐη “the Heracleid force” (for ‘Heracles’) and that it had the meaning “the Argos-killing power”, he suggests that *κρατύς* could be reinterpreted as an adjective in such instances. However, since we do not really know the underlying synchronic meaning of *κρατύς Ἀργεΐφόντης*, this is mere speculation at best. Moreover, it would be highly problematic for the entire ‘Caland system’ of *κρατερός*, the most extensive of its kind in Greek, to be based on one single form which is itself seen as the product of a reanalysis.

Nowadays, the similarity between *κρατύς* and Ved. *krátu-* is often accounted for within the framework of internal derivation, under the assumption that Ved. *krátu-* reflects a so-called acrostatic paradigm, **krót-u-* / **krét-u-*.¹⁰ However, *κρατύς* beside Ved. *krátu-* is in reality one of the very few examples for the supposed derivational scheme. Moreover, the semantic connection between these two items, though possible, is not as clear-cut as some scholars make us believe. It therefore seems best to suspend judgment on this point.

In Van Beek 2013: 151–155, I have proposed a new etymology according to which *καρτερός* ~ *κρατερός* ‘powerful; firm’ is related to Vedic *śrathī* ‘to loosen’, *śithirá-* ‘loose’. Semantically, the idea is that in the *Rigveda*, *śithirá-* still means ‘loose’ in the sense ‘agile, moving freely’. While *śithirá-* may refer to the unbridled motion of horses and the Maruts, *κρατερός* in Homer often denotes the powerful motion of warriors, animals or weapons, and hence their capacity to have impact or to deal damage. Thus, ‘loose, unrestrained, unbridled’ would have developed into ‘fierce, violent’ and hence ‘powerful, firm’ (see below for further discussion of the semantic developments in Greek). In terms of phonology and morphology, the etymology is attractive because the Greek and Vedic

9 The same problem applies to the proposal of Benveniste (1969): see below. It is true that *κράτος* is often granted by a god in Homer, but that does not make it a magical force.

10 See e.g. Nussbaum (1998: 154 n. 189), who refers to *κρατύς* as an “item (...) that is demonstrably an internal derivative of an acrostatic substantive”.

adjectives can both directly derive from the same PIE pre-form * $\acute{k}rth_1-r\acute{o}$ -.¹¹ In this way, we may account not only for the suffix -ρός (instead of -ύς) but also for its extended form -ερός: as we will see, * $\acute{k}rter\acute{o}$ - is reflected in three different dialect groups.

Although I still consider this etymology to be at least as attractive as the connection with Vedic *krātu-*, I will not insist on its correctness here, as the present argument does not depend on it. Instead, since our main task is to establish that the only full grade of the root was PGr. **kret-*, let us turn to the arguments advanced by Benveniste (1969). Benveniste based his etymological analysis on the polysemy of various lexemes in Homer. Since he was unable to reconcile the different meanings of *καρτερός* ~ *καρτερός* under one overarching concept, he concluded that this adjective is a conflation of two etyma, the one meaning 'hard' and related to Goth. *hardus*, the other meaning 'superiority, prevalence' and related to Ved. *krātu-*.¹² According to Benveniste, the original difference between these groups is preserved faithfully in the semantics of most Greek formations. For instance, he claims that the abstract *κράτος* means only 'superiority, prevalence' (and that it is related to Vedic *krātu-*), while the adjective *κραταιός* would mean only 'hard, harsh, cruel' (and is supposedly related to Goth. *hardus*). The two sets of meanings are supposed to coexist only in *καρτερός*.¹³

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- 11 The outcome *śithirá-* is the result of a regular dissimilation of * $\acute{s}rthir\acute{a}$ - (see Lubotsky 1994: 96, with reference to Narten). I accept the view that aspiration of a preceding stop in Indic could be caused not only by * h_2 , but also by * h_1 (see Lubotsky 2011: 115). The most important piece of evidence is Ved. *sphāyate* 'to become fat' < PIE * $sph_1-oi-e/o-$, which belongs with Hitt. *išpāi* (3sg. pres.) 'eats to satiation' < * $sph_1-oi-ei$; the color of the laryngeal is proven by OCS *spěti* 'to succeed', Ru. *spet'* 'to ripen', Lith. *spėti* 'to be in time', OE *spōwan* 'to prosper' as well as by Lat. *spēs* 'hope' (see Kloekhorst, *EDHIL* s.v. *išpāi-*). The root * sph_1- also formed an adjective * $sph_1-r\acute{o}$ -, reflected in Ved. *sphir\acute{a}*- 'fat' and Lat. *prosperus* 'prosperous'.
- 12 Lallot has summarized Benveniste's chapter about *κράτος* as follows (Benveniste 1969: 11, 71): "*Krátos* ne signifie ni « force physique » (*iskhús, sthénos*) ni « force d'âme » (*alké*), mais « supériorité, prévalence », soit au combat, soit à l'assemblée. Ce sens, constant pour *krátos*, est confirmée par une partie des emplois du dérivé *kraterós* qui signifie alors « sans égal », notamment au combat. Mais, dans d'autres emplois, *kraterós* se rapproche, pour le sens, de *krataiós* « dur, cruel », *kratús* « dur ». L'étymologie rend compte de cette situation singulière: *krátos* est à rapprocher de l'i.-ir. *kratu-* qui désigne la « vertu (magique) du guerrier »; *kratús* se rattache à un groupe tout différent, celui de got. *hardus* qui signifie exclusivement « dur »."
- 13 "Dans les emplois de *kraterós* coexistent, sans se confondre, les deux notions que les autres termes en *krat-* permettent de distinguer: d'une part, la notion abstraite de « prévalence, dominion », de l'autre, la qualité physique de « dur »." (1969: 11, 81).

Various objections must be made to this analysis (the details will be elaborated in the sections that follow). First of all, it remains unclear *why* the original semantic difference would have been preserved only in *καρτερός ~ κρατερός*, and why, for instance, only one of the roots formed an abstract. Given the system of derivatives attested in Greek, the default assumption must be that we are dealing with just one etymon, and the burden of proof is on Benveniste. Moreover, several of the semantic claims made by Benveniste appear to be incorrect or incomplete once we consider them more closely:

- *κράτος ~ άρτος* does not only mean ‘power, superiority’ (as claimed by Benveniste 1969, II: 77), but it may also mean ‘fierceness, violence’ or ‘endurance’ (see section 5.2.6).
- *κράτος ~ άρτος* refers not only to human warriors (Benveniste, o.c. 78), but also to animals (*Od.* 3.370, the endurance of horses) and iron (*Od.* 9.393).
- it is unlikely that *κραταιός* means ‘hard, cruel’ when occurring as an epithet of sons in the formula *υΐε κραταιώ* ‘strong sons’, or when Odysseus applies the term to himself (*Od.* 18.383).

Finally, it is difficult to account for the assumption that two originally different etyma independently made an adjective in *-ερός*.

As we have seen, the proposed etymological connections with Indo-Iranian and Germanic both have their own morphological and semantic issues. There is also widespread disagreement on the meaning of the Homeric formations. For instance, *κράτος* is translated as ‘strength, force’ by some scholars, but as ‘superiority, prevalence’ by others;¹⁴ again others stress that *κράτος* seems to refer to the hardness of iron in one Homeric passage.¹⁵ Indeed, given this wide range of meanings, Benveniste’s proposal of a dual etymological origin may seem less surprising. We therefore have to ask how the various meanings of all derivatives can be derived from a single, more basic meaning. In sections 5.1.2–3, I will first deal with this question for the adjective *καρτερός ~ κρατερός* in Homer. After that, it will be possible (in section 5.2) to combine semantics and derivational morphology in our analysis of the root allomorphy in other formations like *κράτος ~ άρτος*.

14 The translation ‘strength, force’ is traditionally accepted, see e.g. *LSJ* (s.v. *κράτος*: “*strength, might*, in Hom. esp. of *bodily strength*”) and *LfggrE* (s.v. *κράτος*: “*überlegene Kraft (...)* beruht im wesentlichen auf *Körperkraft, Stärke*”). For ‘superiority, prevalence’, see e.g. Benveniste (1969).

15 Trümpy (1950: 202–206), Lamberterie (1990: 329).

5.1.2 *The Semantics of καρτερός ~ κρατερός in Epic Greek*

Classical scholars have traditionally posited ‘strong’ as the basic meaning: see e.g. *LSJ* (s.v. καρτερός): “*strong, stout, mighty*, in Hom. mostly of bodily strength (...)”.¹⁶ This rendering is not incorrect, but it needs further qualification. First of all, considering the Homeric evidence, there is every reason to think of more specific translations than ‘strong’. As a general qualification of warriors or monsters, καρτερός means ‘fierce, violent’, and when qualifying concrete motion or applied strength, it means ‘mighty, impetuous, overwhelming’ (cf. also κρατέω ‘to be rampant’ and ἐπικρατέως ‘impetuously’). While καρτερός occasionally qualifies “bodily strength”, to use the words of *LSJ*, it more often denotes a propensity towards violence or an applied force. In addition, it means ‘solid, firm’ when qualifying e.g. shields, bonds, or oaths.¹⁷ Thus, although the translation ‘strong’ may serve as a common denominator, it is often inexact and not sufficiently specific.

In my view, two basic sets of meanings must be distinguished for Homeric καρτερός ~ κρατερός:

1. ‘fierce, mighty, vehement, violent’ (e.g. of warriors, arrows, winds);
2. ‘steadfast; enduring, firm, solid’ (e.g. of warriors, chains, oaths, shields).

First, these lexical meanings will be illustrated with examples.¹⁸ After that, I will argue that 1. ‘fierce’ is the oldest meaning of the root that we can reconstruct within Greek, and then show how 2. ‘steadfast; firm’ secondarily developed. Those interested only in the last-mentioned point may flip over to section 5.1.3.

Sense 1. ‘fierce, mighty’ is frequently attested as a qualification of warriors (or violent mythical beings).¹⁹ I will limit myself here to a brief discussion of two telling instances. In the first instance, the Trojan Helenus refers to Diomedes, who is at the summit of his *aristeia* at this point, as:

16 The lemma runs, in slightly condensed form: “κρατερός, epic variant of καρτερός, 1. *strong, stout, mighty*, in Homer mostly of bodily strength; with collational notion of *stern, harsh*, of Hades; 2. of things, conditions, etc. *mighty, fierce, hard*; 3. of passions *strong, vehement*; of acts and words, *harsh, rough*. II. Adv. *strongly, stoutly*, dashed *roughly*, refused *sternly*.” The interpretation of καρτερός as ισχυρός ‘strong’ is reflected in the Ancient lexicographical tradition.

17 Breuil (1989) forcefully translates καρτερός as ‘prévalent’. In doing so, he gravely oversimplifies the Homeric situation, for instance when speaking of the “dents prévalents” of a lion (1989: 34), or translating καρτερή ὑσμίνη as “lutte prévalente” (o.c. 35).

18 When appropriate or necessary, I will adduce examples of other derivatives such as κράτος, but the focus is on determining the basic meaning of the adjective.

19 Cf. Nordheider, *LfgRE* s.v. (shortened and slightly modified): “*stark, kraftvoll*, von Kriegern (gelegentlich Göttern, Tieren), Kräften, Sachen: *überlegen, überwältigend, unwiderstehlich, unbändig*, oder defensiv *unnachgiebig, unbeugsam, hart, fest*, gelegentlich mit Konnotation ‘überschiessend, hemmungslos’: *zu stark, oder mächtig*.”

ἄγριον αἰχμητὴν κρατερόν μῆστωρα φόβοιο,
 ὄν δὴ ἐγὼ κάρτιστον Ἀχαιῶν φημι γενέσθαι.
 οὐδ' Ἀχιλῆά ποθ' ὦδέ γ' ἐδείδιμεν ὄρχαμον ἀνδρῶν,
 ὄν πέρ φασι θεᾶς ἐξέμμεναι· ἀλλ' ὅδε λίην
 μαίνεται, οὐδέ τις οἱ δύνатаι μένος ἰσοφαρίζειν

Il. 6.97–101

(that) savage spearman, a fierce causer of rout who, in my view, is definitely the mightiest of the Achaeans. Not even Achilles did we ever fear in such a way, that leader of men, who, they say, is born of a goddess; no, this man rages excessively, and no one is able to vie with him in might.

Diomedes is called κάρτιστος Ἀχαιῶν even in comparison with Achilles because of the routs which he causes at this very moment. In the *Iliad*, only Hector (once) and Diomedes (twice) are called κρατερόν μῆστωρα φόβοιο ‘fierce deviser of rout’.²⁰ These routs are ascribed, here as elsewhere, to a μένος ‘drive’ which is so vehement (λίην μαίνεται) that no one present is able to vie with Diomedes in this respect.²¹ He can no longer be contained by mere human effort.

Likewise, if Achilles is repeatedly called κρατερός, this is primarily because of his fierce fighting spirit. When, during his own *aristeia*, he fights the river god Scamander, the latter calls his brother Simoeis for help:

ἵνα παύσομεν ἄγριον ἄνδρα
 ὃς δὴ νῦν κρατέει, μέμονεν δ' ὁ γε ἴσα θεοῖσι

Il. 21.314–315

so that we may stop the wild man who is now rampant; this man's rage is equal to that of the gods

Some hundred lines earlier, Scamander has directly addressed Achilles as follows:

ὦ Ἀχιλεῦ, περὶ μὲν κρατέεις, περὶ δ' αἴσυλα ῥέζεις
 ἀνδρῶν

Il. 21.214–215

20 Similarly, Phobos (personified Rout) is called ἄμα κρατερός καὶ ἀταρβής “both κρατερός and fearless” (*Il.* 13.299).

21 For the μένος of κρατερός Διομήδης, cf. *Il.* 5.135–143 and 239–256.

of all men you are the most violent, and you do the most abominable deeds

The violent deeds of Achilles are characterized in exactly the same terms as the berserk battle rage of Diomedes: both are rampant and know of no restraint.²² Note, in particular, the verbal correspondences ἄγριον ἄνδρα ~ ἄγριον αἰχμητήν and μαίνεται / μένος ~ μέμμενεν. In the case of Achilles, this almost elemental force is explicitly related to his divine descent. Only the forces of nature can contain his fierce might, here described with the verb κρατέει.²³

The examples adduced here can easily be multiplied.²⁴ They show that κρατερός and related words are consistently applied to warriors that are fierce or mighty, either as a general characteristic, or at a specific moment. Moreover, κρατερός is not only applied to human warriors, but also, more generally, to fierce or violent mythical beings. Polyphemus, whose κράτος is said to be greatest among the Cyclopes (*Od.* 1.70), is characterized by his unrestrained use of violence and ferocity when he (or his force) is called κρατερός.²⁵ In Hesiod, κρατερός qualifies the Giants (*Th.* 50), the Erinyes (*Th.* 185), Cerberus (*Th.* 312), the Chimaera (*Th.* 320, cf. 322), the Hundred-Arms (*Th.* 670), and the feet of

22 Later in the same book, during the episode relating his encounter with Agenor, Achilles and his rage receive the qualification κρατερός on three occasions: λύσσα ... κρατερή (*Il.* 21.542–543), ὑπὸ κρατεροῦ Ἀχιλλῆος (21.553), λίην γὰρ κρατερός περὶ πάντων ἔστ' ἀνθρώπων (21.566).

23 When applied to a champion, the sense of κρατέω is 'to be rampant', cf. also *Il.* 5.175 (Diomedes) and *Il.* 16.124 (Patroclus). Earlier in book 21, Achilles remarks about his Trojan opponent Lycaon that he did not expect him to appear in battle anymore, because he had taken him captive earlier on and sold him overseas to Lemnos. In Achilles' words, the sea was apparently not able to keep Lycaon in check (οὐδέ μιν ἔσχε, 21.58), and he adds: "Let us see whether the grain-growing earth will hold him back, which restrains even the fierce [warrior]" (ἦ τε κατὰ κρατερόν περ ἐρύκει, 21.63). Once again, only the elemental forces of water and earth are considered capable of restraining a mighty warrior.

24 Two other telling passages are the following. In *Il.* 17.206–213, Zeus takes pity on Hector and decides to grant him μέγα κράτος. As a consequence, a violent battle spirit (personified as Ares) enters Hector, and his limbs are filled with fighting spirit and might, ἀλκῆς καὶ σθένεος. Very close to this is *Il.* 13.59–61, when the two Aiantes are filled with fierce battle rage by Poseidon (πλήσεν μένεος κρατεροῖο). The effect is that they get "light hands and feet". In two short character speeches (*Il.* 13.73–80), both warriors express this effect in almost identical terms: they are full of eagerness to fight (their θυμός or μένος is aroused) and their limbs are eager (μαίμωωσι). These two passages (and several others) show us that κράτος is a combination of physical might and mental prowess.

25 On four occasions: *Od.* 9.407 and 446 of Polyphemus, 9.476 and 12.210 of his βίη. Cf. also O'Sullivan (1990: 14–15).

Typhoeus (*Th.* 824). For all these monstrous creatures, the translation ‘fierce, violent’ is more pertinent than ‘strong’.

Not only fierce warriors are called *καρτερός*. In Homer, the compound *καρτερόθυμος* ‘with impetuous spirit’ qualifies Diomedes, Achilles, and Heracles, but in Hesiod (*Th.* 378) it appears as an epithet of the three winds. The frequent phrase *καρτερόν μένος* qualifies not only the fierce battle spirit that Poseidon puts into the Aiantes (*Il.* 13.60), but also the destructive elemental force of the fire that consumes a corpse (*πυρὸς καρτερόν μένος αἰθομένοιο, Od.* 11.220). Arrows, spears, and thrown stones receive the epithet *καρτερός* on various occasions, e.g. *καρτερόν βέλος* ‘powerful missile’ (*Il.* 5.104), *βολάων τε καρτεράων* (*Th.* 683, thrown by the Hundred-Arms and Titans). In such instances, *καρτερός* denotes the momentum and destructive impact of the missiles.²⁶ It is conceivable that this use of *καρτερός* originated in its application to heavenly missiles, notably the thunderbolt, the weapon by means of which Zeus ensures his supremacy (*κράτος*).²⁷

In another set of instances, *καρτερός* ‘vehement, violent’ qualifies a powerful movement, drive or emotion. Very frequent in formulae is *καρτερῆ ὕσμινη*, where the epithet refers to the ardor or fervor of battle. The same sense can be recognized in the phrases *καρτερός τρόμος* ‘vehement trembling’ (*Il.* 6.137), *καρτερῆ λύσσα* ‘vehement rage’ (*Il.* 9.239, 21.543), *καρτερόν δέος* ‘vehement fear’ (*Od.* 14.88), *καρτερόν μένος* ‘fierce drive’ (*passim*) and *καρτερῆ ἄλγεια* ‘vehement suffering’ (*passim*). Finally, when *καρτερός* describes the physical qualities of a warrior or his body parts, it underlines the extreme nature of an applied force or violence,²⁸ e.g. *καρτερῆφι βίηφι(ν)* ‘with mighty violence’ (*Il.* 21.501, *Od.* 9.476, 12.210), cf. also *κάρτεϊ χειρῶν* ‘vigor of the arms’ (*Il.* 8.226 and 11.9).²⁹

26 Nordheider (*LfggrE* s.v. *καρτερός*) recognizes this use when he speaks of “... Sachen ... die *kraftvoll, wuchtig* sind und *kraftvoll* zupacken, schlagen, treffen”. More similar examples can be found in Pindar and the tragedians, e.g. *καρτερώτατον βέλος* (*Pi. Ol.* 1.112), *χερμάδας κραταιβόλους* (*E. Ba.* 1096), *ἐκ χειρὸς μεθέντα καρτερόν λίθον* (*E. fr.* 1044 Nauck).

27 The *κράτος* which Zeus possesses and wields (*οὐ τε κράτος ἐστί μέγιστον, Od.* 5.4) is repeatedly referred to in connection with the destructive physical powers of lightning (e.g. *Il.* 2.118, 9.25, where his power to destroy the “crowns of many cities” is mentioned), and he is called *κάρτιστος* in comparison with the other gods (*Il.* 8.17). His victory over the Titans, which yielded him lasting dominion (*κράτος*), was ensured by his possession of the thunderbolt. Homer does not qualify the lightning bolt as *καρτερός*, but the post-Homeric evidence suggests that this may be an old collocation: cf. Hes. fr. 343, *Pi. Isthm.* 8.34, fr. 70b.15 and 155.1, *A. PV* 922–923, *S. OT* 201.

28 Cf. Trümper (1950: 162): “Neben den Substantiven *μένος, δεσμός* und *ἀνάγκη* bedeutet *καρτερός* zweifellos ‘gewalttätig’. Ebenso sicher aber drückt das Adjektiv neben anderen Wörtern einfach eine Intensitätssteigerung aus und ist mit ‘gewaltig’ oder ‘wuchtig’ zu übersetzen.”

29 From post-Homeric poetry, cf. *καρτερόν σθένος* (*B. Dith.* 4.40), *καρτερᾶ ... ισχύϊ* (*B. Epin.* 5.21, of Zeus’ eagle), *χειρῶν ὕπο καρτερᾶν* (*Pi. Pyth.* 11.18, of the hands of Clytemnestra).

In its second sense, *κατερός* ~ *κατερός* means ‘steadfast, enduring, tough’ or ‘firm, solid’. In the following examples it refers to the stamina or resilience of warriors: *ἑστάμεναι κατερώς* ‘to stand one’s ground firmly’ (*Il.* 11.410, 13.56, 15.666), *ἀλλ’ ἔχεο κατερώς, ὄτρυνε δὲ λαὸν ἅπαντα* ‘but hold on firmly, and encourage all your men’ (*Il.* 16.501 and 17.559), *ἀμφίβασιν κατερήν* ‘tough defense’ (*Il.* 5.623), *φάλαγγες κατεραί* ‘steadfast phalanxes’ (*Il.* 5.591–592, 13.126–127), *κατεράς ... φάλαγγας* (*Il.* 13.90) and *κατεραί στίχες ἀσπιστάων* (*Il.* 4.90, 201) ‘the steadfast ranks of the shield-bearers’. This meaning is shared by Homeric Greek and the Classical language.³⁰ Benveniste and Lamberterie have argued that phalanxes were called *κατεραί* because they were ‘hard, massive, solid’ like a wooden log. However, I agree with Strunk (1975: 270–275) that *κατεράς ... φάλαγγας* must refer to the firm spirit of the warriors that form a phalanx:

Das homerische *ἐκαρτύναντο φάλαγγας* meint ein festigen der Schlachtreihen auch oder gerade unter Wiederherstellung des Abwehr- und Angriffsgestes oder -willens. Dieser Kampfgeist heisst *ἀλκή* (...). Bezeichnenderweise wird in einer an Agamemnon gerichteten Schmahrede des Diomedes die *ἀλκή* als “das grösste *κράτος*” bezeichnet. Die von Benveniste geleugnete semantische Brücke zwischen *κράτος* und *καρτύνεσθαι* is damit zumindest in der homerischen Sprache (...) greifbar: mit *ἀλκή*, “kämpferischer Gesinnung”, haben beide Wörter zu Tun.

STRUNK 1975: 273–274

The sense ‘firm, tenacious’ can also be recognized in the following cases: *κατερῶ ἐνὶ δεσμῶ* ‘in a firm bond’ (*Il.* 5.386),³¹ *χερσὶ πίεζε νωλεμέως κατερήσι* ‘he tenaciously checked (his mouth) with his firm hands’ (*Od.* 4.287–288, Odysseus seals the mouth of Anticlus as they lie in ambush in the Trojan horse), *κατερή δ’ ἔχεν ἴς Ὀδυσῆος* (*Il.* 23.719–720, Odysseus puts a check on Menelaus during their wrestling match), and *κατερόν ὄρκον* ‘firm oath’. In several cases we are dealing with a force that continues to be applied, and this meaning may well be more original than ‘hard, solid’ as a qualification of materials.

In fact, examples where *κατερός* qualifies a material as solid or hard do occur in Homeric Greek, but they are rare: *ἀνεγνάμφθη δὲ οἱ αἰχμῆ / ἀσπίδ’ ἐνὶ κατερῆ* ‘the point of his spear was bent away in the tough shield’ (*Il.* 3.349 =

30 It is reflected in *LSJ*’s translation *stout* (as in the archaizing English expressions *stout resistance* and *stout supporter*); in present-day English it could be rendered as ‘tough’.

31 Cf. also *κατερά δεσμὰ* (*h. Herm.* 409), *κατεραῖς ἐν γυιοπέδαις* ([A.] *PV* 168). It is possible that *κατερή* has a similar meaning when qualifying *ἀνάγκη* ‘coercion, constraint’ (*κατερῆς ὑπ’ ἀνάγκης* Hes. *Th.*; *Cypr.*; *Parm.*).

17.45) and θώρηκες κραταιγύαλοι ‘harnesses with hard breastplates’ (*Il.* 19.361).³² This sense remains current after Homer,³³ but various alleged instances in early Greek epic are ambiguous at best. For example, ραιστήρα κρατερήν (*Il.* 18.477) is not a ‘hard hammer’, but rather the ‘powerful hammer’ of the smith Hephaestus (note that ραιστήρ is an old agent noun to ραίω ‘to smash to pieces’). Similarly, in σιδήρου ... κράτος (*Od.* 9.393) and σίδηρος ὃ περ κρατερώτατός ἐστιν (*Th.* 864), it is not certain that the hardness of iron is intended, rather than its fierce or violent qualities in action. Finally, the traditional epithet κρατερῶνυξ (of horses and mules) is normally understood as ‘with hard hoofs’,³⁴ but ‘with fierce hoofs’, referring to the violent kick of a horse’s leg, would be at least as appropriate.³⁵

A special case is the verse-end κραταίπεδον οὐδας (*Od.* 23.46). This is normally translated as ‘ground with hard soil’, assuming that the second member is πέδον ‘ground’, but that assumption is not obvious. In my view, it would be more attractive to assume that the second member reflects πέδη ‘shackle, hobble’, so that κραταίπεδον means ‘which has firm shackles’, to be compared with the phrase κρατερῶ ἐνὶ δεσμῶ. Moreover, Hades is regularly called the ‘firm gatekeeper’ (πυλάρταο κρατεροῖο) of the Netherworld, Achilles refers to the Earth as restraining even men who are κρατερός (ἧ τε κατὰ κρατερόν περ ἐρύκει, *Il.* 21.63); and Moira is said to ‘shackle’ warriors when they are killed (verse-final Μοῖρα πέδησε, *passim*). In the episode containing κραταίπεδον, the suitors have just been killed by Odysseus: “they are lying all around him, the one over the other, occupying the κραταίπεδον οὐδας”. It would make excellent sense if the poet referred to the earth as having fetters that will restrain the suitors forever.

5.1.3 Reconstruction of the Semantic Developments

In the view of Lamberterie (1990), ‘hard, solid’ was the basic meaning of κρατύς before this form went out of use. One piece of evidence in support is the post-Homeric factitive verb κρατύνω ‘to harden, solidify, confirm’.³⁶ He also claims that the original meaning of κρατερός is ‘hard, firm, solid’, and that this adject-

32 As we will see, κραται- functions as an allomorph of κρατερο- (see section 5.2.11).

33 After Homer: Hermes leads the cows he has stolen χῶρον ἀνὰ κρατερόν “over solid ground” so that they will leave no footprints (*h. Herm.* 354), κραταίλειος ‘consisting of solid rock’ (A., E., containing λάσ ‘stone’ as its second member), κραταίρινος ‘with a hard shell’, of a turtle (oracle in *Hdt.* 1.47), καρτερόν τεῖχος ‘solid defense wall’ (Class. prose).

34 Cf. ‘strong-hoofed, solid-hoofed’ (*LSJ*) and also Delebecque 1951: 148–150.

35 Cf. Nordheider (*LfggE* s.v. κραταίπους) for different suggestions: “kann auf Trittsicherheit, Ausdauer oder harte Hufe gehen” (emphasis in original).

36 Lamberterie (1990: 328–331) stresses that κρατύνω belongs to the technical vocabulary of medicine, metallurgy and warfare, where archaic meanings may be preserved.

tive is a replacement of κρατύς. Finally, he shows that κραταιός is semantically equivalent to κρατερός, and analyzes it as reflecting the old feminine of κρατύς (1990: 337–343). This allows him to derive all meanings of κρατερός ~ κρατύς directly from the root meaning of PIE **kert-* ‘to cut’: ‘cutting, sharp’ would have developed to ‘severe’ and ‘violent’ on the one hand, and to ‘hard, solid’ on the other.

Lamberterie’s assessment of the different meanings and their relations is intriguing, but as remarked above, the wrong vowel slot of **kert-* ‘to cut’ with respect to Aeol. κρέτος and Ion. κρέσσω remains an insurmountable objection to the etymology he defends. As a matter of fact, the meanings ‘enduring, steadfast’ (of animate beings) and ‘firm, solid’ (of inanimate entities) may well be secondary with respect to ‘fierce, mighty’, as the Homeric material allows us to retrace possible intermediate stages. For instance, the traditional phrase κρατερόν μένος can be translated as ‘fierce energy’ when it refers to the destructive ardor of fire that consumes a corpse (πυρός κρατερόν μένος αἰθομένοιο, *Od.* 11.220). Fire is a prototypical example of a fervent energy that cannot be stopped once it has been released. On the other hand, κρατερόν μένος can also qualify an arduous stamina, as in the following passage. Menelaus and Meriones carry the corpse of Patroclus towards the ships as they are protected by the Aiantes from the assault of the Trojans. They are compared to a pair of mules that draw heavy wooden logs from the mountains:

οἱ δ' ὡς θ' ἡμίονοι κρατερόν μένος ἀμφιβαλόντες
 ἔλκωσ' ἐξ ὄρεος κατὰ παιπαλόεσσαν ἀταρπὸν
 ἢ δοκὸν ἡε̅ δόρου μέγα νήϊον· ἐν δέ τε θυμὸς
 τεῖρεθ' ὁμοῦ καμάτῳ τε καὶ ἰδρῶ σπυεδόντεσσιν·
 ὡς οἴ γ' ἐμμεμαῶτε νέκυν φέρον.

Il. 17.742–746

Like mules that have put on enduring spirit drag forth from a mountain down a rugged path a beam or a large piece of ship-timber; as they struggle, their spirit is distressed by toil and sweat alike: in a similar way the two struggled to bear away the corpse.

In this passage, we are no longer dealing with the fierce energy of a warrior, but with the untiring pull of draught animals. In the same way, fierce attackers and stout defenders can be qualified as κρατερός. Common to both uses is the arduous nature of the energy and its unrestrained operation. Examples of this meaning ‘enduring’ also occur with derived formations. Athena tells Nestor to provide his guest Telemachus with horses that are ἐλαφρότατοι θείειν καὶ κάρτος

ἄριστοι (*Od.* 3.370), ‘swiftest in running and best in stamina’.³⁷ A beautiful testimony for κραταίος in the meaning ‘enduring, tough’ is *Od.* 18.383 (see section 5.2.11).

Concerning the possible pathways of semantic development, it is not difficult for ‘enduring, steadfast’ (as a qualification of animate beings) to develop into ‘firm, tenacious’ (of an applied corporeal force) and ‘durable, lasting’ (of inanimate entities such as bonds). The latter meaning may then have developed to ‘solid, hard’ (e.g. of an impenetrable shield).

A clear parallel for these semantic developments is found in Lat. *dūrus*. There can be no question that the original meaning of the adjective PIE **duh₂-ró-* was ‘long-lasting, enduring’, as reflected in Gr. δηρόν ‘for a long time’, Arm. *erkar* ‘long-lasting’.³⁸ In Latin, the denominative verb *dūrō, -āre* means ‘to last, persevere; endure’ (thus mostly in Plautus), which may well reflect the older root meaning.³⁹ As for *dūrus*, many of its lexical meanings are similar to those of κρατερός. For instance, it may mean ‘tough, hardy, vigorous’ in a military sense,⁴⁰ and ‘harsh, rough’ as a qualification of human behavior or words (cf. Hom. κρατερῶς ἀποειπεῖν). And, of course, *dūrus* also qualifies hard materials, but not yet in Plautus. Thus, this example shows that a ‘physical’ sense like ‘solid, hard’ is not necessarily the more original meaning.

Concerning the two etymologies traditionally proposed for the group of κρατερός, it appears that the lexical meaning shared with Goth. *hardus* ‘hard’ may have come into being by a series of secondary semantic developments. Given that the root of the Germanic word-group has a different full grade slot, the comparison must be rejected. A connection with Ved. *krātu-* and Av. *xratu-* ‘determination, resolve’ remains conceivable, but it requires that Indo-Iranian underwent the same development from ‘fierce, mighty’ to ‘enduring, steadfast’ as in κρατερός. I have proposed an alternative etymology deriving κρατερός ‘fierce, mighty’ and Ved. *śithirá-* ‘loose’ from the same pre-form PIE **kr̥th₁-ró-*. This is less straightforward semantically, but it has the advantage that the suffix -ερός (instead of -ρός) can be easily accounted for. In any case, even if the comparison with Ved. *krātu-* is correct (which is not certain), it is unlikely that the complete system of ‘Caland’ derivations in Greek arose from the adjective

37 Thus also Lamberterie (1990: 346): “qualité physique de force et d’endurance”.

38 The meaning of Ved. *dūrā-* ‘far’ is easily understood as secondary, e.g. as a qualification of journeys.

39 Pace de Vaan, who apodictically states that “The meaning of *dūrāre* must have evolved from ‘be hard’ to ‘endure, last!’” (*EDL* s.v. *dūrus*).

40 E.g. *fortes et duri Spartiatae*, Cic. *Tusc.* 1.43; *Ligures, durum in armis* Liv. 27.48.

κρατύς: the suffix -ερός is hard to account for in this scenario, and as we will see, both καρτερός and κρατύς are old within Greek.

5.2 The Allomorphy of κρατ- and καρτ- in Homer and Classical Greek

In dealing with the origins of the root allomorphs κρατ- and καρτ-, we may now start from one single etymological origin: a Proto-Greek root **kret-* meaning ‘fierce, mighty’. Before analyzing the derivational relations between different formations and the genre distinctions between the different allomorphs, let us consider the dialectal evidence in more detail.

5.2.1 Dialectal Reflexes and Proto-Greek Reconstruction

Evidence from Aeolic and Arcado-Cyprian shows without a doubt that the original root shape was **kret-*. The Lesbian poet Alcaeus uses the neuter κρέτος, a present ἐπικρέτει, and an aorist κρέτησαι. The same vocalism is preserved in onomastic material: Cypr. *ti-mo-ke-re-te-se* /*Timokretēs*/ (*ICS*² 361, 5th–4th c. BCE), Arc. Δαικρετης (Dubois 1988, I: 111–112), Lesb. Δαμικρετης (Hodot 1974: 116). The original full grade is also preserved in the Ionic-Attic comparative (Hom. κρείσσων, Ion. κρέσσων, Att. κρείττων). Lesbian personal names such as Ικερτης have been adduced as evidence for an alternative full grade καρτ-, but as Hodot (1974) has shown, these forms are not only of late attestation, but probably have nothing to do with -κρετης (see section 5.2.9 below).

In Central Cretan, the positive is reflected as καρτερος ‘having right of say’ (over property, *Lex Gortyn*), ‘firm, trustworthy’ (of a witness, *IC* IV 63.4, *Gortyn*, late 6th or early 5th c.). The comparative κάρρων ‘better’ in literary Doric reflects a pre-form **krt-īos-*, with a zero grade root introduced from the positive.⁴¹ The same form is found as καρτων ‘more trustworthy’ (as a witness) in the *Lex Gortyn*.⁴² In fact, as far as our evidence goes, Central Cretan has generalized

41 E.g. Alcm. fr. 105 Page, Epich. fr. 163, Sophr. fr. 59; for further attestations see *LSJ* (s.v. κάρρων) and Forssman (1980: 194 n. 77).

42 It is commonly accepted that -τ- was analogically restored in Cretan καρτων from the stem of the positive καρτερος and the neuter καρτος (Bile 1988: 181, following *DELG* s.v. κράτος; Forssman 1980: 194–195 n. 83, following Lejeune 1972: 111). However, since -ον- is not a comparative suffix, we must ask whether -τ- does not rather represent the outcome of **-t̥-* after a consonant (thus already Seiler 1950: 54). For the outcome of intervocalic **-t̥-* in Cretan, cf. the overview in Bile (1988: 145–146); in *Gortyn*, it is regularly spelled -ττ- in the 5th c. BCE, as against -θθ- in the 4th c. and later. It could be objected to this that **-t̥-* may not have had an affricate outcome after -r- if Forssman’s derivation (1980) of ἔρρω from **uert-īō* (PIE root **uert-* ‘to turn’) is correct. We could assume, however, that the regular outcome

the root shape *καρτ-* in all derived forms: *καρταιποδα* ‘cattle’, *καρτος* ‘violence’ (*Lex Gortyn*), personal names in *-καρτης*, and a stative verb *καρτεω*.⁴³ Since the comparative form (which is shared by other West Greek dialects) points in the same direction, it looks as if most of West Greek generalized the zero grade root of PGr. **k̑teró-* in all derivations.⁴⁴ Another dialectal reflex of PGr. **k̑teró-* is attested as *κορτερά*: *κρατερά*, *ισχυρά* (Hsch.).⁴⁵ This form is judged by *LSJ* to be “prob. Aeolic”, but since the regular vocalization of **ɣ* in the Aeolic dialects was *-ρο-* (see section 3.3), it is more likely that *κορτερά* was taken from Arcadian or even Cyprian; the Aeolic outcome of **k̑teró-* is unattested.⁴⁶

Thus, genuine dialectal reflexes of the adjective **k̑teró-* are found for Ionic-Attic, West Greek, and probably Arcado-Cyprian. This strongly suggests that **k̑teró-* was inherited from Proto-Greek. An additional argument for a high antiquity of **k̑teró-* is the semantic divergence between Cretan *καρτερος* and Ionic-Attic *καρτερός*: the former is used to qualify witnesses as ‘firm’ or owners of property as ‘having right of say’. In Attic, the normal way to say the same thing is *κύριος*, a lexical archaism. Moreover, in Cretan *καρτων* functions as the comparative of *καρτερος*, which is not the case for Classical *κρείττων* (or even Homeric *κρείσσω*, as we will see below). On the other hand, the neuter *καρτος* means ‘violence’ in Cretan; this meaning is also attested for Ionic-Attic *κράτος*, but diverges from the meaning of *καρτερος* in Cretan. Thus, the Cretan word group cannot have been borrowed wholesale from Ionic-Attic, but the dual sense of ‘violence, might’ beside ‘firm, authoritative’, attested for both Ionic-Attic and Cretan, may well have been inherited from Proto-Greek.

Three important conclusions can be drawn. First, the full grade form of the root was certainly **kret-* in Proto-Greek, and reflexes of this root are found in three Greek dialect groups. Secondly, Proto-Greek had an adjective **k̑teró-*, the meaning of which probably at least included ‘steadfast, firm’ and ‘fierce, violent’. Since *κρατύς* cannot have been secondarily created within Greek, Proto-Greek must have had two adjectives **krtú-* and **k̑teró-*, with forms of compar-

**karrōn* of **k̑rt-ἰον-* was remade into **kart-ἰον-* in early Cretan on the basis of the positive *καρτερος*, and that it was this form which subsequently developed into the attested form *καρτων*.

43 The last-mentioned verb is attested in *SEG* 35.991 (Lyttos, early 5th c.): pres. *καρτει* (line 3), aor. *κα[ρτησ]αι* (line 4–5).

44 On evidence for the development of **ɣ* in West Greek dialects, see section 3.2.

45 This gloss corroborates the meaning found in Classical prose, where both *καρτερός* and *ισχυρός* ‘strong’ are used to qualify walls and fortresses.

46 The form *κάρτερον* (Alc. fr. 302c.8, cf. also *καρτε*.[Alc. fr. 119.19) may be an epicism or a borrowing from Ionic (see section 3.3.5). In both instances, the meaning of the context is unclear.

ison **krétios-* and **krétisto-*.⁴⁷ Thirdly, there is a dichotomy between dynamic meanings (e.g. ‘violent, vehement, mighty’) and state-oriented meanings (e.g. ‘power, control’), which may well hark back to Proto-Greek.

5.2.2 Adjectives in -ύς, -ρός and -ερός

The root vocalism of the adjectives in -ύς has been discussed in chapter 4. As for the adjectives in -ρός, they derive from a thematic formation whose root was normally in the zero grade, cf.:⁴⁸

- μακρός ‘tall, long’, Lat. *macer* ‘meagre’ < **mh₂k-ró-* beside μήκιστος ‘longest’;
- ἐρυθρός ‘red’, Lat. *ruber* ‘id.’ < **h₁rud^h-ró-* beside ἐρεύθω ‘to redden, make red’.⁴⁹

A zero grade root is also found in PGr. **krteró-* ‘fierce; firm’ and its reflexes. However, why do we find two different adjectives, *καρτερός* ~ *κρατερός* and *κρατύς*? Clearly, *κρατύς* is a relic form, as adjectives in -ύς are unproductive in Greek generally. Another example where Greek may preserve two inherited adjectival formations to the same root is *ἐλαφρός* ‘nimble’ (cf. OHG *lungar* ‘fast, cheerful’) beside *ἐλαχύς* ‘small’ (cf. Ved. *raghú-* ‘fast’). We might therefore leave it at this and assume that both *καρτερός* ~ *κρατερός* and *κρατύς* were inherited from PIE. However, this does not yet explain why the former has a suffix -ερός rather than simply -ρός. It is therefore reasonable to ask how PGr. **krteró-* (or its predecessor in PIE) may have been created.

A fair number of **ro-*formations in Greek and Indo-Iranian are inherited from PIE, but in addition deverbal *ro-*adjectives were productive. In Indo-Iranian, many instances occur beside state-oriented verbs or verbs of motion (Rau 2009: 163, with tables on pp. 164–167). In Greek too, “the vast majority of *ro-*stems are made to roots that make primary verbs” (Rau 2009: 168), and

47 For the reconstruction of the root vocalism of the comparative and superlative, see section 4.1.2.

48 There are only few possible exceptions, the most notable one being *δηρόν* ‘long-lasting’, Arm. *erkar* ‘id.’, which is often reconstructed as **d_ueh₂-ró-* (cf. e.g. Nussbaum 1976: 13). However, in view of obviously cognate formations like Ved. *dūrā-* ‘far’ and Lat. *dūrus* ‘hard; harsh; enduring’, one wonders whether the Greek and Armenian forms can after all be explained from **d_uh₂-ró-*, as claimed e.g. by Olsen (2009). See also the elaborate discussion of full grade *ro-*formations by Vine (2002), who concludes that *e-*grade *ro-*formations are “essentially substantival”.

49 The root of *μακρός* is sometimes reconstructed as **mak-*, but this is unsatisfactory because the Greek forms show ablaut. Avestan *mas-* ‘big’, on the basis of which a reconstruction PIE **mh₂k-* is sometimes excluded, has been analyzed as a crossover between this root and that of Skt. *māhi*, Gr. μέγας < **meǵ-h₂* (see NIL 478–481), but Kümmel (2018: 165) has convincingly argued that *mas-* is a devoiced allomorph of *maz-* conditioned by the following laryngeal. For the development of word-initial **RHC-*, see Beekes (1988b).

again, they pair either with activity verbs or state-oriented verbs. In my view, this implies that the PIE ‘Caland suffix’ **-ro-* was deverbal *tout court*.⁵⁰ This may explain why different Indo-European languages sometimes used different adjectival suffixes for the same root: Hitt. *tēpu-* ‘small, little’ beside Ved. *dabhrá-* ‘id.’ and Hitt. *daššu-* ‘strong, etc.’ beside Ved. *dasrá-* ‘artful; skilled’, OAv. *dayra-* ‘id.’. Since the verbal root is still attested in Indo-Iranian, it is attractive to assume that the Anatolian *u*-stem adjectives preserve something older and that the forms underlying Ved. *dabhrá-* and *dasrá-* are deverbal innovations of Nuclear PIE or Proto-Indo-Iranian.⁵¹ Likewise, the meaning of ἔλαφρός ‘nimble’ is relatively close to that of the verbal root **h₁leng^{wh}-* (which is not attested in Greek, but cf. Ved. *rámhate* ‘to move without effort’) while ἔλαχός ‘small, little’ is completely lexicalized.

All this is not meant to exclude that some adjectives in **-ro-* are very old, but merely to sketch a possible scenario for the rise of PGr. **kṛteró-*. If the etymological connection with Ved. *śithirá-* ‘loose, relaxed’ and the verbal root *śrathí* ‘to loosen’ (proposed in Van Beek 2013) is correct, we may posit an adjective PIE **kṛth₁-ró-* ‘loose, unbridled’, whence in Greek ‘fierce, mighty, overwhelming’. The root-final laryngeal would immediately account for the extended shape of the suffix *-ερός* in *καρτερός* (PGr. **kṛteró-*), which remains unexplained in other scenarios. There must have been a semantic split between **kṛth₁-ró-* and **kṛth₁-ú-*, but it is hard to recover the details as *κρατύς* occurs only in a single formula. If the meaning of *κρατύς* was ‘solid, hard; firm’ (as proposed by Lamberterie 1990: 327–331), this would make sense within the above scenario: the adjective in *-ύς* would be more lexicalized, while the meaning of *καρτερός* ‘enduring, persevering’ would be closer to that of the verb *κρατέω*.

5.2.3 Synchronic Description of the Classical Prose Forms

Before analyzing the variation *κρατ-* ~ *καρτ-* in Epic Greek, let us first consider the situation in Classical times, for clear distributions between both root variants can be found there. Table 7 shows all word-forms with *κρατ-* and *καρτ-* attested in Classical Ionic-Attic. Forms that are exclusively attested in poetry are marked as such, but forms exclusively attested in hexameter poetry are not included. Unless otherwise indicated, prose forms are attested both in Attic and in Ionic.

50 This is argued in more detail in Van Beek 2021a.

51 It has been suggested (e.g. Nussbaum 1976: 14) that there was a productive rule to use **-ro-* instead of **-u-* when the root already contained **-u-* (as in ἔρυθρός, λυγρός, ὑγρός). However, this does not account for archaisms in Greek such as εὐθύς ‘straight’ and PIE **sueh₂d-u-* ‘agreeable, sweet’, nor for the occurrence of PIE **-ro-* in roots not containing **-u-* (e.g. **mh₂k-ró-*).

TABLE 7 κραιτ- versus καρτ- in Classical Ionic and Attic

Forms with κραιτ-	Forms with καρτ-
κρατερός (poetic only)	καρτερός
κραταιός (poetic only)	
κραται- (poetic only) ⁵²	καρται- (poetic only) ⁵³
Κρατι- (in PNS only)	Καρτι- (in PNS only) ⁵⁴
κράτος	κάρτος (poetic only) ⁵⁵
compounds in -κρατής	
κρατέω	
κρατύνω	καρτύνω (poetic only) ⁵⁶
κρέσσων, κρείττων (-σσ-)	
κράτιστος	κάρτιστος (poetic only) ⁵⁷
	κάρτα

- 52 The occurrence of Κραται- in epigraphically attested onomastic material may be due to epic influence.
- 53 κραιταί-ποδ- is only attested once in Pindar (*Ol.* 13.81) in the meaning 'bull', and in Cretan in the meaning 'cattle'.
- 54 Meissner (1998: 244–245) thinks that the names in Καρτι- and Κρατι- are secondary creations on the model of names in Καλλι-, but this is difficult to prove, and in my view unlikely. Interestingly, names with a first member κραιτερο- are not found, except in Thesaly (Bechtel 1917: 260–261).
- 55 Outside of Epic Greek, κάρτος is securely attested only in Simon. fr. 15.1.2 and B. *Epin.* 5.114, authors where the form may be an epicism. In Hdt. 8.2, κάρτος is only a v.l. (codd. AB) for κράτος (all other mss.). Trümpy (1950: 202) claimed that κάρτος is the Ionic form, as against Attic κράτος, referring to Bechtel (1921–1924, 111: 86) and Smyth (1894: 132). In reality, Smyth and Bechtel merely remark that the variation in the adjective καρτερός ~ κρατερός is also occasionally encountered in personal names, where we sporadically find -καρτης instead of -κρατης. Bechtel mentions only three instances, but in the first two his reading differs from that given by other editors: Μνεσικαρτες (Styra [Euboea], where the edition *IG* XII,9 56.283 reads Μνεσικαρίεις); Καρτιες (ibid. 393), and Ευθυκαρτιδης ... ho Ναξσιος (Delos, *SGDI* 5419), which also occurs on a stone found on Naxos (*IG* XII Supp. 192.28). For the latter name, a derivation from κείρω 'to cut' cannot be excluded: the literal meaning of the name would be 'who cuts straight incisions'. The name Σωκαρτης which occurs twice on an inscription from Miletus (*SEG* 13.498) belongs to new citizens that emigrated from Crete, where the regular root shape was καρτ-. Finally, a patronymic genitive Πολυκαρτεος is encountered once in a 5th c. inscription from Lycia (*TAM* II, 1184), but it is unknown whence the bearer of this name came. In view of the abundant evidence for names in -κρατης, no conclusions can be based on these examples. I conclude that κράτος was the only form of the neuter noun in Ionic, as in Attic.
- 56 The only instance of καρτύνω in Classical poetry is Pi. *Ol.* 13.95, which may reflect a generalization of the license to substitute *ap* for *pa*: cf. the use of θράσος and θάρσος as variants in Pindar, and the compound κραιταίποδ- beside the epic first member κραιται-.

The forms *κάρτος*, *καρται-*, *καρτύνω*, and *κάρτιστος* are attested only once or twice each, and always in poetry; they did not belong to the Ionic-Attic vernacular. Moreover, *καρτερός* is the only regular prose form; *κρατερός* is only found occasionally, but always in poetry.⁵⁸ Thus, Classical prose has the following forms:

- adjective *καρτερός* ‘fierce; firm, solid; persevering, steadfast’
- comparative *κρείττων* ‘better, prevailing, stronger’
- superlative *κράτιστος* ‘most powerful, supreme; best’
- adverb *κάρτα* ‘very, heavily; surely’
- neuter *κράτος* ‘power, control’
- compounded adjectives:
 - ἐγκρατής* ‘tenacious; in control’
 - ἀκρατής* ‘powerless’
- denominative verb *κρατέω* ‘to prevail, conquer’
- factitive verb *καρτύνω* ‘to make solid, fortify; be in charge’

The single most striking fact about the forms attested in prose is that there are no doublets with *-αρ-* beside *-ρα-*. Moreover, a number of forms have been lexicalized and are no longer derivationally associated with their etymological relatives. First of all, the comparative *κρείττων* and the superlative *κράτιστος* no longer belong with the adjective *καρτερός*. This appears not only from the respective lexical meanings, but also from the creation of new forms of comparison *καρτερώτερος*, *καρτερώτατος*. Instead, it is commonly believed that Attic *κρείττων* and *κράτιστος* are the comparative and superlative belonging with *ἀγαθός* ‘good’, in the specialized sense ‘strong’.⁵⁹ This can be contrasted with the situation in Cretan (see 5.2.1) and in Homer (see below). Secondly, there is no synchronic derivational relation between *καρτερός* and the abstract *κράτος*. Again, this is not only shown by the distinct lexical meanings of both groups

57 Only in an epigram ascribed to Simonides (*AP* 7.344.1).

58 Cf. *LSJ* (s.v. *καρτερός*): “Epic form of *καρτερός*”. Note that *καρτερός* is rare after Homer, and that most attestations are found in meters with dactylic rhythm. It is attested in Pindar (3×), Bacchylides (5×), Corinna (1×), and among the tragedians only in Aeschylus (2×, both times in lyrical parts). In Herodotus, *καρτερός* only occurs twice, both times in oracles (1.67 and 8.77); Xenophon (*Mem.* 3.2.2, cf. also *Symp.* 4.6) quotes the form from Homer. The only attestation in Classical Attic prose seems to be Pl. *Tim.* 75b, which speaks of a *σαρκώδη ... καὶ νευρώδη κρατεράν τε κεφαλήν*, a “head ... fleshy and sinewy and tough”. Since classical *καρτερός* never refers to physical toughness, this may again be an epicism. The same goes for the compound *κρατεράυχη* (Pl. *Phdr.* 253e).

59 See e.g. Bornemann and Risch (1978: 55): “... ἄριστος (...) heisst oft ‘tüchtigster’, βελτ- bezeichnet besonders den ‘sittlich besseren’, κρειτ-/κρατ- (vgl. *κράτος*) eigentlich den ‘stärkeren.’” See also Kühner-Gerth I¹, 565.

and their different root shapes καρτ- versus κρατ-,⁶⁰ but also by the existence of a denominative verb καρτερέω ‘to persevere’ and a derived abstract καρτερία ‘perseverance’. Finally, the adverb and particle κάρτα and the factitive verb κρατύνω (in the sense ‘to harden’ attested in prose) are synchronically isolated.

We are now in a position to draw an important conclusion: the classical Ionic-Attic forms καρτερός and κάρτα must be the regular reflexes of their respective pre-forms with *krt- because their vowel slot is aberrant with respect to the full grade *kret-. In all non-poetic forms containing κρατ- (κράτος and its derivatives -κρατής, κρατέω; superlative κράτιστος; κρατύνω), this root variant can be explained as replacing an older form with κρετ- (cf. Lesbian ἐπικρέτει, κρέτησαι, and personal names in -κρέτης) or as having an analogically influenced vocalization.

The question remains where the root allomorph κρατ- originated. The most natural form to have influenced κράτος, κρατύνω, and κράτιστος would be the positive of the adjective. This positive cannot have been καρτερός, however, because the only form (and regular outcome) in Ionic-Attic prose was, as we have just seen, καρτερός. I see only one possible scenario: the allomorph κρατ- originated in the adjective κρατύς, and was thence secondarily introduced, at an early date, in other ‘Caland’ derivations. This introduction did not take place in καρτερός and κάρτα because these forms had already diverged semantically at the relevant time.

We have already encountered a potential argument for the antiquity of κρατύς (Lamberterie 1990: 328–330): in its sense ‘to harden’, the verb κρατύνω can be understood as a factitive derived from κρατύς if the latter had the meaning

60 In order to illustrate the claim that the lexical meanings of καρτερός and κράτος are different in classical times, I have considered all attestations in Herodotus (Ionic prose) and Thucydides (Attic prose). It appears that in Thucydides, καρτερός is used in a marginal way: it either refers to places as ‘strong’, referring to their security in a military sense, or it qualifies a battle or military action as ‘mighty, violent’. On the other hand, κράτος either means ‘power, rule, supremacy’, or appears in the phrase κατὰ κράτος ‘with all one’s might, in a powerful way’ or ‘by force’ (often qualifying verbs referring to military action). In Herodotus, καρτερός has a slightly wider usage: apart from the two uses found in Thucydides, we find the phrase κατὰ τὸ καρτερόν, equivalent to κατὰ κράτος in Thucydides; moreover, the claws of the crocodile are referred to as ‘fierce’, ὄνυχας καρτερούς (2.68). On the other hand, κράτος only appears in the socio-political meaning ‘power, rule, command’. Thus, the meanings ‘fierce, mighty’ and ‘solid, enduring’ of epic καρτερός ~ καρτερός are only marginally attested for καρτερός in Classical prose, where *all* these meanings have in fact been taken over by ἰσχυρός (which is post-Homeric). It thus seems that καρτερός is sometimes used as an archaizing stylistic variant of ἰσχυρός; Herodotus, for instance, uses κατὰ τὸ ἰσχυρόν ‘by force’ and κατὰ τὸ καρτερόν without any apparent lexical difference.

'hard, solid'.⁶¹ However, while the abstract κράτος indeed never means 'hardness' in classical Greek, it could be objected that κρατύνω 'to harden' may have been derived from κράτος somewhere between Homer and the late 5th century, as the meaning 'hardness' may in fact be attested for κράτος in Homer⁶² and may have fallen into disuse only later. Having said this, it remains probable that κρατύς was more frequent in Ionic until not too long before Homer, as this is the only way to account for the analogical spread of κρατ-.

5.2.4 Synchronic Description of the Homeric Forms

Table 8 shows the forms with κρατ- and καρτ- attested in Homeric Greek.

TABLE 8 κρατ- versus καρτ- in Homeric Greek

Forms with κρατ-, *κρετ-	Forms with καρτ-
κρατύς ⁶³	
κρατερός	καρτερός
κρατερό-φρων, -ώνυξ	καρτερό-θυμος
κραταιός	
κραταί-πεδος, -γύαλος	
κράτος	κάρτος ⁶⁴
ἐπικρατέως	
(ἐπι-)κρατέω ⁶⁵	καρτύνω
κρείσων	
	κάρτιστος

61 The derivation of κρατύνω is complicated by the fact that this verb has two meanings. The normal usage in prose is factitive, as historically expected for a verb in -ύνω: 'to harden, make solid' (e.g. bones, metal), 'to strengthen, fortify' (a place, position, or dominion). Besides, the tragedians attest an intransitive meaning 'to rule, gain control' (+ gen. 'over'). In the opinion of Lamberterie (1990: 328–330), it is difficult to derive κρατύνω 'to harden' from κράτος, because the neuter does not mean 'hardness, solidity' synchronically in Classical Greek. In the meaning 'to rule', however, κρατύνω was certainly derived from κράτος (cf. Lamberterie 1990: 328 n. 4 with literature).

62 In the phrase τὸ γὰρ αὐτὲ σιδήρου γε κράτος ἐστίν *Od.* 9.393 (on which see below).

63 Only in κρατύς Ἀργεΐφόντης, name-epithet formula of Hermes.

64 Apart from early Greek epic, only in Tyrt. fr. 4.9 and twice in Classical poetry (see the previous section); in Hellenistic poetry, κάρτος is used a few times by Call. and Theoc.

65 Present stem only; aor. κρατήσαι may have been avoided for metrical reasons (section 5.2.6).

As has been noted in the previous section, a number of the specifically epic forms occur occasionally in other poetic genres. Among the Homeric formations there are only two doublets: *καρτερός* ~ *καρτερός* and *κράτος* ~ *κάρτος*. Furthermore, in *κάρτιστος* and *καρτύνω*, Homeric Greek has *καρτ-* as opposed to a classical form with *κρατ-*. How did the doublets come into being, and which variants are older?

In the following sections, I will argue that the forms restricted to epic are not the regular outcome of **kʀt-* in some vernacular, but arose within the traditional language of hexameter poetry. It is well-known that epic poets could apply normal mechanisms of linguistic change (e.g. proportional analogy) in order to adapt word-forms to metrical circumstances.⁶⁶ Indeed, it appears to be possible to indicate a concrete model and motive for the creation of most of the variant forms just listed. By accounting for the mechanisms by which these variant forms came into being, we may further corroborate the insight that *καρτ-* is the regular Ionic-Attic outcome of **kʀt-*.

Another striking fact is that three different adjectives are attested in Homer: *κρατύς*, *καρτερός* (with variant *καρτερός*), and *κραταιός*. In compounds, too, different stem-forms are used as a first member: *καρτερο-*, *καρτερο-*, and *κραται-*. To what extent are these stems metrical variants of each other? Is *καρτερός* really lexically equivalent to *καρτερός*, or are there perhaps subtle differences in usage? Does *κραταιός* have the same lexical meaning as the former two? In order to answer these questions, we will have to pay close attention to philological details. For purposes of reconstruction, it is also important to know more about the historical origin of the different formations. For instance, what does *-αίος* in *κραταιός* represent?

Let us start with the epic doublets *καρτερός* ~ *καρτερός* and *κράτος* ~ *κάρτος*. Given that *καρτερός* and *κράτος* are the regular prose forms, it is reassuring to find that *καρτερός* and *κάρτος* can be analyzed as analogical creations of the epic language.

5.2.5 *καρτερός* and *καρτερός* in Homer

Attempts to establish a clear-cut semantic difference between *καρτερός* and *καρτερός* within Epic Greek turn out to be futile. Both forms can be used to qualify the same noun, as in *φάλαγγες καρτεραί* (*Il.* 5.591–592, 13.126–127) which is mirrored by *καρτερὰς ... φάλαγγας* (*Il.* 13.90, cf. also *καρτεραί στίχες*, 2 × *Il.*).⁶⁷

66 Cf. among other works Meister 1921, and the illustrative examples in Hackstein 2010.

67 Furthermore, *καρτερή ὕσμινη* ‘fierce battle’ is mirrored in Classical prose by *καρτερή μάχη* ‘id.’; Achilles and Diomedes are both qualified as *καρτερός* and *καρτερός*.

Furthermore, the first members of *κρατερόφων* and *καρτερόθυμος* are clearly metrical variants.

The Homeric numbers and distributions are as follows:

- *κρατερός* (162 times):⁶⁸ normal in all case forms;
- *καρτερός* (28 times): mainly -ός, -όν (mostly after |_B), rarely -οί, -αί, -ά.

The fact that *κρατερός* is almost six times as frequent as *καρτερός* is partly due to its occurrence in a number of frequent formulae and set phrases: *κρατερός Διομήδης* (or a metrically equivalent PN), *κρατερόν μήστωρα φόβοιο* (3 ×), *κρατερόν μένος* (6 ×), *κρατερήφι βίηφι(ν)* (3 ×), *ἐνὶ κρατερῇ ὑσμίνῃ* (11 ×), *κατὰ κρατερῆν ὑσμίνην* (8 ×), etc. The form was easy to use due to its metrical structure.⁶⁹ On the other hand, *καρτερός* was awkward for epic poets because it could not be used in a hexameter line in a large number of case forms: the dat. and gen. pl. of all genders and most case forms of the feminine contain a cretic sequence. It was easy to handle only in the neuter plural (cf. *καρτερά ἔργα*) and before a vowel-initial heavy syllable (cf. *καρτερός ἀνήρ*)

In view of these facts, one might well ask: why did *καρτερός* exist at all? The answer is, as we have seen, that *καρτερός* was the form of the spoken language, while *κρατερός* is all but restricted to Epic Greek. It became so frequent because it supplied for impracticable case forms of *καρτερός*, and perhaps also of moribund *κρατύς*. Thus, the epic evidence confirms the conclusion reached on the basis of the classical forms: *καρτερός* regularly reflects Proto-Ionic **krteró-*.

It remains to indicate how exactly *κρατερός* came into being. One possibility would be that its root was based on that of *κρατύς* before the latter lost its currency. I will further pursue this question in section 8.4.1. On the complicated relation between *κρατερός* and *κρατύς* in Epic Greek, see also section 5.2.10.

5.2.6 *The Neuter Abstract Nouns (and Derivatives) in Homer*

The oldest form of the neuter noun in Ionic-Attic is clearly *κράτος*, with introduction of the root vowel of *κρατύς* (cf. Aeol. *κρέτος*). As we have seen, this is also the only form attested in prose. But why and how was *κάρτος* created?

Let us start from the assumption (which will have to be nuanced later on) that no semantic difference existed between *κράτος* and *κάρτος*, just as with *κρατερός* and *καρτερός*. Table 9 contains the numbers for both Homeric variants

68 Including the adverb *κρατερῶς* and the comparative *κρατερώτερος*.

69 Its forms could be used in any foot of the verse, without any noteworthy restrictions on the preceding or following word.

TABLE 9 Forms of κράτος, κάρτος and σθένος in Homeric Greek

	κράτος	κάρτος	σθένος
nom.-acc.	κράτος (28 ×) 26 × before _B	κάρτος (6 ×) no fixed position	σθένος (21 ×) 16 × before _B
gen.	–	–	σθένεος (5 ×)
dat.	κράτεϊ (2 ×)	κάρτεϊ (7 ×)	σθένεϊ (15 ×)

of the doublet, in all attested case forms. For comparison, I have added the figures for σθένος ‘force’, which is semantically close and metrically equivalent to κράτος.⁷⁰

Forms of κράτος ~ κάρτος are only found in the nom.-acc. and dat. sg.⁷¹ In the nom.-acc. κράτος is by far the most frequent form, but in the dat. sg., κάρτεϊ (5 × *Il.*, 2 × *Od.*) is more frequent than κράτεϊ. This is a natural distribution given that κράτεϊ consists of three consecutive short syllables (though cf. ὁ τε κράτεϊ προβεβήκη, *Il.* 16.54).⁷² It is therefore plausible that the dative κάρτεϊ was introduced, on the model of the already-existing doublet καρτερός ~ κρατερός, to supply for the ill-practicable form κράτεϊ. Subsequently, a new nominative-accusative κάρτος was created.

This scenario is corroborated by the lexical semantics of κάρτος and κράτος. In Homer, κράτος has two primary meanings.⁷³ The first is ‘fierceness, overpow-

70 A lexical difference between κράτος and σθένος seems to be implied by the following syntactic difference. While σθένος is often accompanied by ὤρσεν ‘evoked’, ὄρνυται ‘arises’, κράτος is always complement to a verb like δῶκεν, ἐγγυάλιξεν ‘gave’. It appears that σθένος denotes a powerful, yet human characteristic, whereas κράτος tends to be more extreme and of heavenly origin. Another difference is that |_T (μέγα) σθένος, followed by the genitive of a PN, occurs in formulae as a honorific title, just like |_P ἱερὸν μένος (+ PN in genitive); there is no such construction with κράτος. Finally, the meaning of κράτος is broader: σθένος does not mean ‘power’ but merely ‘force’.

71 Hesiod does attest the genitive κράτεος (*Th.* 647, where West’s reading κάρτεος is doubtful). There is no support either for West’s emendation of κάρτος ... ἔργων (*Th.* 710, all codd.) to κάρτεος ... ἔργων.

72 The form κράτεϊ could have been used (with epic correption or elision of -i) before vowel-initial, metrically long syllables, but this use is not attested. An irregular scansion is tolerated in οὐ τι κράτεϊ γε (*Il.* 7.142); the same license is found with the dat. sg. of σθένος in the first hemistich κάρτεϊ τε σθένεϊ τε |_T (2 ×). The form σθένεϊ occurs in the formula |_H σθένεϊ βλεμειν- (6 × *Il.*; βλεμεινίω attested only in this formula), and is also used without metrical irregularity in the phrases σθένεϊ μεγάλῳ (2 × *Il.*), κάρτεϊ καὶ σθένεϊ σφετέρῳ (*Il.* 17.322), and δίκησί τε καὶ σθένεϊ ᾗ (< **hmōi*, *Il.* 16.542).

73 With regard to the etymological connection with Germanic ‘hard’ (see section 5.1.1), it has

ering force, preponderance, predominance' in concrete violent confrontations. The power in question is typically granted to warriors by Zeus or another divinity (cf. formulaic μέγα κράτος ἐγγυαλίξω and inflected forms).⁷⁴ The second sense is 'supremacy, power, dominion', of a military leader or ruler over his subjects.

On the other hand, *κάρτος* appears to be used only in the first set of meanings of *κράτος*, 'fierceness, preponderance'. In βίη καὶ κάρτεϊ εἴκων 'yielding to violence and brute force' (*Od.* 13.143 and 18.139, both about criminal or violent deeds) and κάρτεϊ χειρῶν '(relying on) the might of their hands' (*Il.* 8.226 = 11.9), *κάρτος* denotes an unrestrained, brute force.⁷⁵ This meaning is also attested in *κράτος* ... κτείνειν 'the power to kill' (*Il.* 11.192–193 = 207–208), as well as in *Od.* 1.70 where the *κράτος* (physical strength, brute force) of Polyphemus is said to be greatest among the Cyclopes.⁷⁶ A second nuance is 'strength' in the sense of endurance or the ability to persevere. This is attested e.g. in *Il.* 16.524 for *κράτος* (the wounded Lycian hero Glaucus asks Athena for strength), and in e.g. *Il.* 17.561–562 for the variant *κάρτος* (Menelaus is oppressed by enemies and asks Athena for the strength to hold on).⁷⁷ There is no place where *κάρτος* clearly means 'political power, dominion'.

been stressed that *κράτος* has the meaning 'hardness' in *Od.* 9.393. However, the context (a simile, *Od.* 9.391–394) is not unambiguous: ὡς δ' ὅτ' ἀνήρ χαλκεὺς πέλεκυν μέγαν ἢ ἐσκέπαρων / εἰν ὕδατι ψυχρῶ βᾶπτη μεγάλα ἰάχοντα / φαρμάσσω· τὸ γὰρ αὐτε σιδήρου γε κράτος ἐστίν / ὡς τοῦ σίζ' ὀφθαλμὸς ἐλαϊνέω περι μοχλῶ. "As when a bronze smith dips a large axe or an adze into cold water to temper it, and it hisses loudly: for of iron that is the *κράτος*; likewise did his [the Cyclops'] eye hiss around the stake of olive wood." Here, the poet could just as well refer to the hissing sound of the water vapor as characteristic for, or indicative of, the violent qualities of iron.

- 74 Several scholars (e.g. Benveniste 1969, followed by Strunk 1975; Breuil 1989) have stressed that *κράτος* is often of a volatile and temporary character: it changes sides between Achaeans and Trojans according to the will of Zeus. They go too far, however, when denying that it may also mean 'force, might': for this meaning, see Lamberterie (1990: 345–346) and O'Sullivan (1990: 14–15). Both meanings, 'force' and 'supremacy', must be admitted for Homeric Greek. Besides, the word may denote the lasting authority which allows a leader to control and direct a body of subjects. An appropriate German equivalent is *Gewalt*, which denotes both an applied physical force and the authority of a ruler or an institution.
- 75 For *κάρτεϊ χειρῶν* 'might of the hands/arms', we may compare certain Homeric instances of *θάρος* with a close (but not identical) meaning, and especially the formula *θρασειῶν ἀπὸ χειρῶν*.
- 76 O'Sullivan (1990: 14) rightly criticizes Kirk's view that *κράτος* would here denote socio-political power. The sense 'brute force' is preserved in Classical Ionic-Attic in the prepositional expression *κατὰ κράτος* 'with all one's might' (e.g. in Thucydides).
- 77 δὸς δὲ κράτος, ὄφρ' ἐτάροισι κεκλόμενος Λυκίοισιν ἐποτρύνω πολεμίζειν, αὐτὸς τ' ἀμφὶ νέκυι κατατεθνηῶτι μάχωμαι "Give me strength, so that I may call my Lycian fellows and encourage them to do battle, and that I myself may fight over the dead body [of Sarpedon]" (*Il.*

Crucially, then, the abstract *κάρτος* could only be used when its meaning corresponded to that of the base form, *κρατερός* ~ *καρτερός*. In the meaning ‘power, dominion’, *κράτος* was used: cf. also the denominative verbs *κρατέω* ‘to rule; be rampant’ and *ἐπικρατέω* ‘to hold sway’, which have no variant with *καρτ-*.⁷⁸ Thus, *κάρτος* was derived from *καρτερός* ‘impetuous, violent; enduring’ on the model of *κράτος* beside *κρατερός*. It is not a true doublet of *κράτος*.⁷⁹

Having explained the origin of *κάρτος*, it remains to briefly discuss the other forms derived from *κράτος*. Homer has only one compound in *-κρατής*, which occurs as an adverb: *ἐπικρατέως* ‘impetuously’.⁸⁰ A by-form in *-καρτής** does not exist, perhaps because there was no metrical incentive to create it.⁸¹ An adjective **ἐπικρατής* is also presupposed by the denominative stative verb *ἐπικρατέω* ‘to have the upper hand; to be master, rule (over)’ (7 × Hom.). Frequent is *κρατέω* (13 ×), which in Homer means ‘to have *κράτος*’ in both senses of the noun: ‘to be violent/rampant’ or ‘to dominate, be in control, rule’. On three occasions, *κρατέω* is modified by the adverb *μέγα*; it is therefore derivationally linked with *κράτος* (cf. *μέγα κράτος* 6 × Hom.).

The aorist of *κρατέω*, *κρατήσαι* ‘to obtain victory’, is unattested in Homer; this form, usual in Classical Greek, was probably avoided in Epic Greek for metrical

16.524–526); εἰ γὰρ Ἀθήνη δόιη κάρτος ἐμοί, βελέων δ’ ἀπερύκοι ἐρωήν “May Athena give me strength [to continue fighting], and may she ward off the storm of arrows” (*Il.* 17.561–562). In both cases, the power to persevere is granted by Athena. Cf. further the phrase *κάρτος τε βίη τε* at *Od.* 4.415 (about the tenacious force which Menelaus has to apply in order to control the shape-shifting Old Man of the Sea), as well as *Od.* 3.370, where *κάρτος* denotes the stamina of horses.

78 In Homer: *Il.* 16.54 (Agamemnon over the Achaeans), *Od.* 1.359 and 21.353 (Telemachus over his household), 5.4 (Zeus), and 11.353 (Alcinous over the Phaeacian δῆμος). I take the verse τοῦ δ’ ἐκ Φαιήκων ἔχεται κάρτος τε βίη τε (*Od.* 6.197) to mean “on him (Alcinous) the force of the Phaeacians depends”, reading *ἐκ ... ἔχεται* with tmesis and noting that the phrase *κάρτος τε βίη τε* has the same meaning ‘violence and force’ also at *Od.* 4.415. This distribution also holds good for Hesiod, provided that one follows the evidence of the mss. for the genitive *κράτεις* in *Th.* 647 (the lasting dominion of Zeus), rather than emending to *κάρτεως* (*pace* West’s edition, who bases this reading on the reading *κα[* in one papyrus).

79 The situation is slightly more complex. There is no trace of *κρατερός* ~ *καρτερός* in the meaning ‘powerful, in control’ in the *Iliad*, but there are two possible instances in the *Odyssey* (14.116 and 15.534). It seems that *καρτερός* has encroached in Ionic upon *κύριος*, the normal word in this sense in Classical Attic and the lexeme inherited from Proto-Greek.

80 Further attested in Hes. *Op.* 206, *Scut.* 321, 419, 461, Stes. fr. 40.24 Page, Ibyc. fr. S199.6 Page.

81 The only evidence for *-καρτής* comes from epigraphically attested personal names, most of which are of Cretan or Theran origin. See section 5.2.3 above.

reasons.⁸² In theory, the metrical problem could have been solved by creating an artificial form *καρτήσαι, based on a proportion like κράτος : καρτήσαι (both spoken Ionic) = κάρτος : X (Epic Greek).⁸³ One reason for the absence of *καρτήσαι may be that, in the meaning ‘be victorious, prevail’, it would have been metrically equivalent to its synonym νικήσαι, and therefore of little use. Furthermore, as we have just seen the variant κάρτος did not mean ‘victory, predominance’ but ‘strength, brute force’, so it may have diverged too much semantically to serve as a base form.

5.2.7 *The Forms of Comparison in Homer*

Homeric grammars and lexica generally state that κρείσων and κάρτιστος are the forms of comparison corresponding to the positive κρατύς.⁸⁴ This true from a historical perspective, but not synchronically. Apart from the fact that the precise meaning of κρατύς cannot be determined, there are two problems, as we will presently see: in Homer κάρτιστος does not function as the superlative of κρατύς, and κρείσων is paradigmatically isolated, i.e. it remains without a corresponding positive or superlative.

Let us start with the superlative. As a form, Homeric κάρτιστος is artificial and probably due to the avoidance of the normal Ionic form κράτιστος for metrical reasons.⁸⁵ The root allomorphy that existed in the positive καρτερός ~ κρατερός ‘fierce’ was extended to the superlative. This can be backed up by the semantics. While Classical κράτιστος means ‘most powerful, supreme’, Homeric κάρτιστος (11×) usually means ‘fiercest, mightiest’. In other words, κάρτιστος actually functions as the superlative of κρατερός ~ καρτερός,⁸⁶ as the following two examples illustrate:

ἄγριον αἰχμητὴν κρατερόν μῆστωρα φόβοιο,
ὄν δὴ ἐγὼ κάρτιστον Ἀχαιῶν φημι γενέσθαι

Il. 6.98–99

82 The vocalism of Aeol. ἐπικρέτει and κρέτησαι may suggest that the pre-form of καρτήσαι never contained a syllabic liquid. Therefore, using καρτήσαι would require the application of the *muta cum liquida* license, which in Homer is not yet very frequent with original plosive plus liquid onsets (see chapter 6).

83 As in Hom. καρτύνω for καρτύνω, which could be reanalyzed as derived from κάρτος ~ κράτος after the adjective κρατύς had become obsolete. See below.

84 For instance, *Lfgre* has one single entry “κρατύς (κρείσων, κάρτιστος)”; cf. also Chantraine (1958: 255–256).

85 See section 4.1.2 for the reconstruction of a full grade root *kret-isto-, and chapter 6 for the avoidance of *Mcl* scansion before original full vowels.

86 Cf. Cunliffe 1924 (s.v. κάρτιστος).

[Diomedes] that savage spearman, a fierce causer of rout who, in my view, is definitely the mightiest of the Achaeans.⁸⁷

καρτίστην δὴ τὴν γε μάχην φάτο δύμεναι ἀνδρῶν

Il. 6.185

this battle of men, he said, was the fiercest that he ever took part in

Compare the phrases κρατερὴ ὕσμίνη ‘fierce battle’ (frequent in Homer) and καρτερὴ μάχη ‘id.’ (Hdt., Th.). In eight of the remaining nine attestations, the being qualified as κάρτιστος is the fiercest or strongest of its group or class. Warriors may be ‘fiercest’ in comparison with other men,⁸⁸ and Zeus calls himself θεῶν κάρτιστος ἀπάντων (*Il.* 8.17) when he threatens the other gods that he will subdue them and throw them into murky Tartarus (cf. also *Il.* 20.243). The eagle is called ἄμα κάρτιστός τε καὶ ὤκιστος πετεηνῶν (*Il.* 21.353) “the strongest and also the swiftest of birds”.

There is only one place in Homer where κάρτιστος allegedly means ‘best’ (which is also the superlative’s only occurrence in the *Odyssey*). Circe instructs Odysseus how to evade the monstrous Scylla:

ἦ δέ τοι οὐ θνητή, ἀλλ’ ἀθάνατον κακόν ἐστι,
 δεινόν τ’ ἀργαλέον τε καὶ ἄγριον οὐδὲ μαχητόν·
 οὐδέ τις ἔστ’ ἀλκή· φυγέειν κάρτιστον ἀπ’ αὐτῆς.
 ἦν γὰρ δηθύνησθα κορυσσόμενος παρὰ πέτρῃ,
 δεῖδω μὴ σ’ ἐξαυτίς ἐφορμηθεῖσα κίχῃσι
 τόσσησιν κεφαλῆσι, τόσους δ’ ἐκ φώτας ἔλῃται.
 ἀλλὰ μάλα σφοδρῶς ἐλάαν, ...

Od. 12.118–124

She is not mortal, you know, but an immortal evil: terrible, difficult, wild and not to be fought with. There is no resistance: *you must flee from her with all your might* (κάρτιστον). For if you tarry arming yourself by the cliff,

87 For a discussion of this passage, see section 5.1.2 above.

88 In *Il.* 1.266–268, the Lapiths and the Centaurs both receive the same epithet κάρτιστοι in a description of their war: The Lapiths were the fiercest mythical human warriors, the Centaurs were the fiercest non-human mortal creatures. For κάρτιστοι ... ἀνδρῶν applied to the Lapiths (cf. also κάρτιστον ... ἄνδρα *Il.* 7.155; κάρτιστος ... ἀνδρῶν *Il.* 9.558), cf. the phrase καρτερός ἀνήρ (*Od.* 4.242, 4.271, 20.393).

I fear that she will attack again and reach you with as many heads [as before], and catch as many men. No, *you should row with all your might* (...).

Line 120 is commonly translated as: “there is no defense: fleeing from her is [the] best [thing to do]”.⁸⁹ Instead of this, I propose to interpret φυγέειν as an *infinitivus pro imperativo*, and to take κάρτιστον as an adverbially used accusative. This yields the interpretation “you must flee from her with all your might”. This is attractive, because it allows us to view φυγέειν κάρτιστον as syntactically parallel to μάλα σφοδρῶς ἐλάαν in line 124.⁹⁰

The second (and more complicated) issue is the paradigmatic status of the comparative κρείσων ‘stronger, superior; better’ in Homer (17 ×). In West Greek dialects, as we have seen, the root shape of the positive καρτερός has spread to all derivationally connected forms, including the comparative κάρρων (literary Doric), καρτων (Gortyn). In Ionic-Attic, however, the zero grade root was introduced in κράτιστος but not in κρείσων. This remarkable difference would be explained if κρείσων no longer functioned as the comparative corresponding to κράτιστος when the latter was reshaped. Can this conjecture be backed up by the semantics of these forms?

In Classical Greek, the core meaning of κρείττων (Ionic κρέσων) is ‘better, stronger’. In most Homeric attestations, κρείσων means ‘more powerful, superior’, in a violent confrontation or a duel of main force.⁹¹ It occurs either with or without a genitive complement, depending on whether a concrete duel is thought of or whether someone is said to be superior in general. Although the genitive complement betrays its origin as a comparative, κρείσων may almost function as a plain adjective, not only in Classical Greek but already in Homer.⁹²

89 Cf. “the best course is to flee from her” (tr. Dimock 1995); similarly *Lfgre* s.v. κρατός.

90 This is the only occurrence in Homer of the prose adjective σφοδρός ‘vehement, impetuous, fierce, energetic’. It is hard to tell why μάλα σφοδρῶς was preferred here to μάλα καρτερῶς, which would fit the meter and occurs several times in Homer; there may have been a subtle semantic or stylistic difference.

91 Cf. Cunliffe 1924 (s.v. κρείσων). Only the adverbially used neuter κρείσσον, attested just once (*Od.* 6.182), has the bleached meaning ‘better’ that is also found in Classical Greek.

92 In one passage in the *Odyssey*, κρείσων has the meaning ‘having right of say (over)’ (+ gen.): μήτηρ ἐμή, τόξον μὲν Ἀχαιῶν οὐ τις ἐμεῖο κρείσων, ᾧ κ’ ἐθέλω δόμεναί τε καὶ ἀρνήσασθαι (...) τῶν οὐ τις μ’ ἀέκοντα βιήσεται, αἶ κ’ ἐθέλωμι καὶ καθάπαξ ξείνῳ δόμεναι τάδε τόξα φέρεσθαι “Mother of mine, as for the bow, no one of the Achaeans has right of say over me (οὐ τις ἐμεῖο κρείσων), that I may give or deny it to whoever I wish to: (...). No one of them shall force me against my will, even if I should wish to give this bow once and for all to the stranger to carry it away with him.” (*Od.* 21.344–345 and 348–349). Here, κρείσων seems to function as the positive of an adjective corresponding to the abstract κράτος in the sense

There is an interesting restriction in the use of *κρείσων*: almost without exception, it refers to the result of a *future* conflict that can still be avoided.⁹³ This is neatly illustrated in the first book of the *Iliad*. The seer Calchas is afraid of Agamemnon's wrath and asks Achilles for protection before he interprets the dire situation of the Achaeans. His motivation for this request is as follows:

κρείσων γὰρ βασιλεύς ὄτε χῶσεται ἀνδρὶ χέρηϊ
εἴ περ γὰρ τε χόλον γε καὶ αὐτῆμαρ καταπέψη,
ἀλλά τε καὶ μετόπισθεν ἔχει κότον, ὄφρα τελέσση,
ἐν στήθεσσιν ἐοῖσι· σὺ δὲ φράσαι εἴ με σαώσεις.

Il. 1.80–83

For a king prevails when he gets angry with a lower-ranked man. For even if he swallows down his wrath for that day, afterwards he will cherish resentment in his heart, until he will turn it into action. So tell me whether you will safeguard me.⁹⁴

These lines illustrate well how Agamemnon's political power (*κράτος*) is based on the principle that the threat is stronger than its execution.

Furthermore, it is remarkable that *κρείσων* never means 'more violent, fiercer'. Within Epic Greek, it is therefore paradigmatically unrelated to *κρατερός* ~ *καρτερός* and *κάρτιστος*, which refer to the might or fierceness of a combat-

'power, authority' (G. *Gewalt*) and *κρατέω* 'to be in charge'. In Class. Attic, *κρείττων* may also function as a positive, e.g. *κρείττων αὐτοῦ* 'master over oneself'.

93 *LfgGE* gives the following translations: "aktuell *sich im Zweikampf als der stärkere erweisen* ~ *siegen* (...); dauernd *stärker* (...); *mächtiger* (...); mit Angabe des Bereichs *überlegen in/an* (...); *besser* (...)." On the basis of *Il.* 3.71 *νικήση κρείσων τε γένηται*, Trümpy asserted that victory is a prerequisite for being *κρείσων*: "... für *κρείσων* ist ein Sieg Voraussetzung" (1950: 205–206). However, this formulation fails to take into account that *κρείσων* never qualifies actual victors in Homer (these are referred to with the ptc. *νικήσας*, and their victory with *νίκη*). I would therefore modify Trümpy's words as follows: "für *κρείσων* ist ein *gedachter* Sieg Voraussetzung".

94 Another illustrative case is *Il.* 19.216–219, where Odysseus addresses Achilles: ὦ Ἀχιλλεῦ Πηληϊός υἱὲ μέγα φέρτατ' Ἀχαιῶν, κρείσων εἰς ἐμέθεν καὶ φέρτερος οὐκ ὀλίγον περ ἔγχει, ἐγὼ δέ κε σεῖο νοήματι γε προβαλοίμην πολλόν, ἐπεὶ πρότερος γενόμην καὶ πλείονα οἶδα, "Achilles, son of Peleus, by far the best of the Achaeans, stronger are you than I am and better not a little with the spear. But I would beat you by far in counsel, because I was born earlier and know more." As Breuil (1989: 44) notes, "... la prévalence d'Achille sur Ulysse ne s'actualise que de manière indirecte". For the same typical use of *κρείσων*, cf. also *Il.* 20.334 and *Il.* 23.578. When the *νόος* 'mind' of Zeus is qualified as *κρείσων* (*Il.* 16.688, 17.176), the idea is that his will (the Διὸς βουλή) will prevail *eventually*, no matter what another god or a human being may devise.

TABLE 10 Homeric forms of comparison with the root *κρετ-, κρατ-, καρτ-

	‘Superior’; ‘better’	‘Fierce’
Positive	–	κρατερός ~ καρτερός
Comparative	κρείσσων	κρατερώτερος
Superlative	not attested	κάρτιστος and κρατερώτατος

ant in a concrete situation, or to being fierce as a characteristic or permanent property. If the Proto-Ionic precursor of Homeric κρείσσων was already an isolated comparative formation, just like *superior* in English, this would explain why the *e*-grade of the root was preserved exclusively in this form.⁹⁵

Finally, the paradigmatic isolation of κρείσσων is also suggested by existence of a comparative form κρατερώτερον ... ἄεθλον ‘[no] fiercer contest’ (*Od.* 11.624), which mirrors μάχη καρτερή (*Hdt.*, *Th.*) and καρτερή ὑσμίνη (*Hom.*). Morphologically, this κρατερώτερος is the regular comparative of κρατερός in Homeric Greek.⁹⁶ As we have just seen, the usual Homeric superlative of καρτερός ~ κρατερός is κάρτιστος, but in Hesiod (*Th.* 864), the productive form κρατερώτατος is predicated of σίδηρος ‘iron’ in the sense ‘the hardest, fiercest’.⁹⁷

The conclusions of this discussion are summarized in Table 10.

5.2.8 κρατύς and καρτύνω in Homer

In Homer, καρτύνω is attested only in the phrase ἐκαρτύναντο φάλαγγας ‘they filled their ranks with battle spirit’, in a repeated battle scene where a phalanx is formed.⁹⁸ Its different vowel slot in comparison with κρατύς and Classical

95 A different question is to what extent κρείπτων and κράτιστος are part of the same paradigm in Classical Attic (it is normally thought that both forms belong to the positive ἀγαθός).

96 Cf. also κρατερώτερον ἄλλο κεραινοῦ ‘[no] fiercer [weapon] than lightning’ (*Hes.* fr. 343.8).

97 σίδηρος, ὃ περ κρατερώτατός ἐστιν (*Hes.* *Th.* 864).

98 After Homer, ἐκαρτύναντο is attested once in Hesiod (*Th.* 676) and in two epic fragments (*Antimachus* fr. 42.1 Wyss, also fr. 64.4 Lloyd-Jones & Parsons). Furthermore, the active present καρτύνειν is attested once in Pindar (*Ol.* 13.95). It is difficult to pinpoint the meaning of καρτύνω with absolute certainty on the basis of one single formula. Strunk (1975) points out that the line preceding ἐκαρτύναντο φάλαγγας, in all three Homeric attestations, depicts an army leader arousing the fighting spirit (ἀλκή) of his men: the consequences of the leader’s call “bestehen nicht nur im blossen zusammenrücken der φάλαγγες, sondern auch darin, dass diese neuen Anlass zum Kampf sehen und frischen Mut fassen.” (1975: 273). The idea that φάλαγγες καρτεραί conveys the image of a solid and massive wooden log (*Benveniste* 1969, 11: 80, *Lamberterie* 1990: 332) is in my view less likely.

καρτύνω requires an explanation. It is unlikely that καρτύνω is a relic form whose vowel slot was not affected by that of the base form κρατύς.

Fortunately, it is not difficult to find a motive for creating καρτύνω: like κράτιστος, the expected form κρατύνω may have been avoided in Homeric Greek for metrical reasons.⁹⁹ But what was the linguistic model? At first sight, it seems difficult to indicate an adequate proportional analogy. Whereas other analogical forms with καρτ- (κάρτος, κάρτιστος) are derivationally connected with καρτερός ~ καρτερός and semantically akin to it, καρτύνω cannot be derived from καρτερός for morphological reasons. It cannot be derived from κρατύς either, because no by-form *κρατύς exists. The best solution is to assume that καρτύνω was derived from epic κάρτος in its sense ‘endurance, strength to persevere’. Apart from the pair κράτος : καρτύνω in the spoken language, another model may have been the semantically close θαρσύνω ‘to encourage’ beside θάρσος ‘perseverance, courage’. As argued in section 4.5, θαρσύνω could be reanalyzed as based on θάρσος after the original form *θαρσύς had been ousted by θαρσαλέος.¹⁰⁰

Thus, καρτύνω ‘to strengthen, make firm’ is a by-form of the form κρατύνω current in prose. It can be viewed as an inner-epic analogical creation meaning ‘to provide with κάρτος’ (in its sense ‘endurance in battle’).¹⁰¹

5.2.9 κάρτα

The adverb and particle κάρτα ‘very, much; vehemently; surely, indeed’ is relatively well-attested in Classical Greek: it is frequently used by Herodotus, in the Hippocratic corpus, and in the tragedians. It is not found, however, in inscriptions, Thucydides, Xenophon, or the orators, only a few times in Aristophanes, and it is almost entirely shunned in hexameter poetry.¹⁰² Its only occurrence in Plato (*Tim.* 25d) is in the story about Atlantis, which is said to be due to the

99 The Ionic vernacular form κρατύνω may have been derived from the *u*-stem adjective κρατύς after the vocalization of the syllabic liquids and the subsequent spread of the allomorph καρτ- (see section 4.3.3). Lamberterie (1990: 328) stresses that the meaning of καρτύνω in later prose is “to harden, consolidate, reinforce” in a material sense, but it also had the sense ‘to strengthen one’s defense / fortifications’ (cf. *LSJ* s.v.), which is close to the Homeric meaning.

100 Strunk (1975: 296) gives the same derivation, but does not account for the peculiar variations καρτ- ~ καρτ- and θαρσ- ~ θαρσ-. Remember that θαρσύς ‘reckless’ has not only the wrong vowel slot, but also a different lexical meaning as compared to θαρσύνω.

101 In the words of Strunk (1975: 273–274), “Die von Benveniste gelegnete semantische Brücke zwischen κράτος und καρτύνεσθαι (κρατύς) ist damit zumindest in der homerischen Sprache (...) greifbar: mit ἀλκή, »kämpferischer Gesinnung«, haben beide Wörter zu tun.”

102 In pre-Classical poetry only in Aristaeus Epicus fr. 5.2, Empedocles fr. 4.4; Protagoras fr. 9, Epich. fr. 113.1.13.

elder Critias, who is supposed to have heard it from Solon (ὑπὸ τοῦ παλαιοῦ Κριτίου κατ' ἀκοήν τὴν Σόλωνος), who in turn was informed by an Egyptian priest. The word therefore probably belongs to a high register in Classical Attic. On the other hand, *κάρτα* remained alive in Eastern Ionic: this is shown by its occurrence not only in Herodotus, but also in Hipponax (fr. 32.2), the poet from Ephesus and Clazomenae reputed for his use of low register vocabulary. Thus, an adverb *κάρτα* existed in Proto-Ionic; it was replaced in Attic by other adverbs such as *σφόδρα*.

The semantic relation between *κάρτα* and *κρατερός* ~ *καρτερός* in the sense 'fierce, vehement' is clear, and they are surely related.¹⁰³ The adverbs in *-α* are a relic formation. The reconstruction of the suffix *-α* itself is unclear and debated,¹⁰⁴ but the root vocalism is usually identical to that of the corresponding adjective, cf.:

– λίγα 'loudly'	λιγύς 'sonorous'
– μάλα 'very'	μάλλον 'more', μάλιστα 'most'
– πύκα 'closely; frequently'	πυκινός, πυκνός 'close'
– ὠκα 'swiftly'	ὠκύς 'swift'
– τάχα 'quickly'	ταχύς 'fast', comp. θάσσων, superl. τάχιστος
– ἦκα 'softly, lightly'	ἥσσων 'worse', ἥκιστος 'least', adv. ἥκιστα

Thus, forms like *τάχα* and *λίγα* may have been influenced by the adjectives *ταχύς* and *λιγύς*. In the case of *κάρτα*, however, such influence was only possible as long as the root was still **krt-* (contrast the different root shape of *κρατύς*). Hence, *κάρτα* must be the regular reflex of a pre-form **kṛta*.

This conclusion is at odds with the widely-shared assumption of a regular development **r > -ρα-*. Illustrative for the embarrassment of previous scholarship is the treatment of Ruijgh (1980: 563 n. 10):

Noter que **κράτα* est le résultat phonétique de **kṛtḥ* (cf. ἔδρακον : δέρομαι). Il faut donc expliquer *κάρτα* par une métathèse due au modèle de **κέρτος* (attesté par l'anthroponyme Ἰ-κέρτης), doublet de *κρέτος*; cf. la substitution de *δαρτός* à *δρατός* d'après *δερ-*. (...) La métathèse se retrouve dans *καρτερός*, *κάρτιστος*, *κάρτος*, *καρτύνω* et lac. *κάρρων* < **κάρσων*, doublets de *καρτερός* etc.

103 The similarities between *κάρτα* and Lat. *certus* 'certain' (adv. *certe* 'certainly, surely') are superficial: the Latin word derives from **kritó-* 'sifted, distinguished' (cf. *EDL* s.v. *certus*).

104 Nussbaum (1976: 122 n. 37) proposes to reconstruct **-nt*, the neuter form of a Caland *nt*-adjective. For a discussion with further literature, see Meissner (2006: 63–64), who prefers **-h₂*. For the Homeric instances, see Risch 1974: 363.

Here, Ruijgh ascribes the variation between -αρ- and -ρα- to a similar hesitation concerning the full grade slot in the abstract noun κρέτος ~ *κέρτος. This assumption is completely unfounded, as there is no evidence whatsoever for *κέρτος anywhere in Greek. Hodot (1974) has shown that the name Ιερτης, which occurs only in Lesbian, is unrelated to -κράτης. The normal Lesbian counterpart of Ionic names in -κράτης is -κρέτης, which is attested from the 5th c. BCE onward; on the other hand, names in -κέρτης first appear in the 2nd c. BCE and must therefore be considered an innovation. Hodot convincingly suggests that this late Lesb. -κέρτης is the regular outcome of -κρίτης.¹⁰⁵

Ruijgh also misses the mark when suggesting (1980: 562 n. 8) that κάρτα could be the result of a post-Homeric analogy μάλα : μάλιστα = X : κάρτιστα. The problem is, as we have seen, that κάρτιστος is an artificial Homeric form unattested in the Ionic vernacular, whereas κάρτα is, conversely, unattested in Homer. Moreover, an adverbial form κάρτιστα is unattested in Homer.¹⁰⁶

Since an convincing analogical explanation of κάρτα is hard to find, I conclude that it probably reflects *kr̥ta, thus representing a valuable piece of evidence for the regular development of *ʀ in Proto-Ionic.

5.2.10 From Proto-Ionic to Attic and Ionic

On the basis of our comparison between the Homeric and Classical Ionic-Attic forms in the preceding sections, it is possible reconstruct the following situation for Proto-Ionic, directly after the vocalization *ʀ > -αρ- and the levelling in κρατύς, but before -ρα- was generalized to other full grade forms:

- adj. *kratús*
 - forms of gradation *krétjōn, *krétistos
 - factitive verb *kratúnō*
- n. *krétos
 - stative verb *kretéō
 - compounds in *-kretés

105 According to Meissner (2006: 68–69), names in -κρετής / -κράτης are recent creations because no examples are found in Homer or Mycenaean.

106 Alternatively, one could think of a proportion μάλα : μαλερός = X : καρτερός, as I did in Van Beek 2013: 140. However, this would require that μαλερός was current in spoken Ionic-Attic in the meaning ‘vehement’ when the analogy was applied. This is not evident, as μαλερός is exclusively poetic and its exact meaning is debatable. Cf. GEW s.v. μαλερός, “wegen der unbestimmten Bedeutung ohne überzeugende Etymologie”. Blanc (DELG, Supp. s.v. μαλερός) has argued that μαλερός originally referred to the brilliant splendor of light, and that the form arose by dissimilation from *mar-ero-, with the root of μαρμαίρω ‘to glitter’. This seems unlikely to me, but if it is correct, it would imply that μαλερός cannot play a role in accounting for κάρτα.

- adj. *karterós*
- adv. *kárta*.

Homeric Greek and Classical Ionic-Attic agree in having the forms *κράτος*, *-κρατής*, and *κρατέω*. Moreover, the superlative *κράτιστος* is found in both Attic and Ionic, and was probably avoided in Homer for metrical reasons. This suggests that as early as Proto-Ionic, *-ρα-* was introduced from the adjective in these forms, but not in **kretjōn*. This introduction led to the following situation:¹⁰⁷

- *κρατύς* ‘powerful, fierce; firm’
 - κράτιστος* ‘most powerful’ > ‘best’
 - *κρατύνω* ‘to make firm, harden’
- **kretjōn* ‘superior’
- *κράτος* ‘fierceness; power’
 - *κρατέω* ‘to be rampant; be in control’
 - *-κρατής* ‘having power’
- *καρτερός* ‘fierce, strong; steadfast, enduring; firm’
- *κάρτα* ‘vehemently, firmly’ (> ‘very’).

The root variant *κρατ-* first arose in the adjective *κρατύς*. Whereas this form is a relic already in Homer, it must have been alive in Proto-Ionic because the introduction of *a*-vocalism in *κράτος* and *κράτιστος* started out from this form.

It is impossible to assume influence of *καρτερός* on the vocalism of **krétos*, **krétistos*. First of all, the forms *καρτερός* and *κράτος* have different vowel slots. If the vocalized zero grade had been levelled, the result would have been *κάρτος*, as in Gortynian Cretan. The variant *καρτερός* cannot be reconstructed for Proto-Ionic; it originated within the epic tradition. Had the Homeric doublet *καρτερός* ~ *καρτερός* also existed in the vernacular, it would be difficult to understand why *καρτερός*, with its deviant vowel slot, was not ousted by *καρτερός*. Secondly, in Classical Greek the semantic divergence between *καρτερός* ‘steadfast, persevering’ and *κράτος* ‘power’ is considerable. Both forms have their own system of derivations, and already in Homer the analogical form *κάρτος* serves as an abstract to *καρτερός*, not as a pure doublet of *κράτος*. Admittedly, this argument is not decisive because the semantic distance between *καρτερός* and *κράτος* may originally have been more narrow.¹⁰⁸ However, it would make sense if the meaning of *κρατύς* was something like ‘powerful, violent’ (closer to that of *κράτος*), while that of *καρτερός* was already more like ‘steadfast, enduring, persevering, firm’.

107 In this overview, I leave aside the precursors of *κραταιός* and *κραται-* because these forms were limited to Epic poetry.

108 The same holds for the argument that Class. *κρατύνω* in the sense ‘to make firm, harden’ cannot have been derived from *κράτος*.

5.2.11 *The Reconstruction of κραταίος and κραται-*

It is generally agreed that κραταίος, κραται- and κραταιῖς (PN Κράταιις) had pre-forms with a zero grade root **krt-*, but their precise morphological reconstruction and the origin of -αι- have been a topic of debate. I will first summarize and criticize previous accounts of κραταίος and κραται-, and then propose my own scenario accounting for both forms. Concerning κραταιῖς (Κράταιις), this form is derived from κραταίος, as I will argue in the next section.

The meaning of κραταίος is more or less identical to that of κρατερός ~ καρτερός.¹⁰⁹ A broadly shared assumption is that the masculine κραταίος is a back-formation from the feminine attested in the formula Μοῖρα κραταιή.¹¹⁰ It is supposed that κραταιή somehow continues an archaic motional feminine **kṛth₂μih₂* of the *u*-stem adjective κρατύς, where the second -α- would be the vocalization product of **h₂*. This reconstruction is inspired by that of the toponym Πλάταια, which is analyzed similarly as the direct outcome of the old feminine **pl̥th₂μih₂* of πλατύς ‘wide’.¹¹¹ That Πλάταια (pl. Πλαταιαί) is indeed a relic *u*-stem form is corroborated by its pattern of accentuation, which recurs only in a few archaic motional feminines of Greek *u*-stem adjectives: λίγεια, θάλεια, λάχεια and the *pluralia tantum* ταρφειαί, θαμειαί. The root-final laryngeal of PIE **pleth₂-* is corroborated by the voiceless aspirate of Indo-Iranian (Ved. *prathⁱ*) and the Greek noun πλαταμών ‘flat surface’.

Severe problems arise, however, when this explanation is extended to κραταίος. First of all, there is no independent evidence that the root ended in **h₂*. Meissner (2006: 62), accepting the etymological connection with Ved. *krātu-* and Av. *xratu-* (which exclude root-final **h₂-*), assumes that an extended form **h₂u-* of the suffix *-*u-* somehow became productive in Proto-Greek. Lamberterie (1990: 352–353), while deriving κρατύς from **kert-* ‘cut’, is forced to assume a contamination of that root with *(s)*kerH-* ‘cut’ (which would have given rise to

109 See Lamberterie (1990: 337); to his list of examples proving this equivalence, I would add *Od.* 18.383, where κραταίος occurs in a speech by Odysseus. Still in disguise as a beggar, he addresses the suitor Eurymachus and warns him that Odysseus would beat him in any contest of endurance, be it in mowing the grass from morning till evening, in ploughing a field all day long, or in full war. Thus, in the verse καὶ πού τις δοκέεις μέγας ἔμμεναι ἤδὲ κραταίος (*Od.* 18.383) “you think you are some big and tough guy”, κραταίος refers to the physical condition (fitness) which the suitor Eurymachus is lacking, according to Odysseus. Thus, apart from the sense ‘impetuous, fierce’ (which is likely in the other Homeric instances), κραταίος also means ‘steadfast, tough’ on at least one occasion. At least the poet of this line considered κραταίος and κρατερός ~ καρτερός to be semantically interchangeable.

110 Risch (1974: 74), Nagy (1999: 85–89 and 349–354), Lamberterie (1990: 337–343), Meissner (2006: 62–63).

111 This toponym may have originally been an epithet denoting a wide or flat area (e.g. *πλάταια χώρα). Of course, the normal feminine πλατεῖα has analogical -εῖα.

**kerth₂*-) in order to account for *κραται-* and *κραταιός*. Both ideas are designed specifically in order to explain *κραταιός*, and neither is supported unambiguously by further evidence.¹¹²

A second problem concerns the inner-Greek developments assumed to lead to *κραταιός*. The expected feminine of a *u*-stem adjective would be **κράταιᾶ*, but this form is unattested, and Homer already has the archaic formula *Μοῖρα κραταιή*. Both the quantity of the final vowel of *κραταιή* and its oxytone accentuation are problematic, and there would have been no motive for replacing **κράταιᾶ* in *Μοῖρα κραταιή*, as petrified formulae cannot be expected to undergo unmotivated analogical morphological changes. Finally, the creation of a secondary masculine *κραταιός* beside *κραταιή* (Lamberterie 1990: 339) is not without problems: most of the parallels adduced by Lamberterie to explain this process are post-Classical, and their similarities with *κραταιός* are weak.¹¹³

In view of these objections, the reconstruction of *κραταιός* remains problematic. Before presenting my new account, let us consider the reconstruction of the first member *κραται-*. A number of details remain puzzling: what is the origin of *-αι-*? Is there a derivational relation between *κραται-* and *κραταιός*? And how do personal names with *Καρτι-*, *Κρατι-* fit into the picture?

A brief digression about Caland's rule for replacing adjectival suffixes with *-i-* in first compound members (cf. section 4.1) will be in order here. This rule may have been productive until not too long before Homer. The most important examples of first compound members in *-ι-* are the forms shown in Table 11 (next page).¹¹⁴ Several of these forms co-occur with adjectives in *-ρό-* or *-νό-*, just as in the Indo-Iranian examples: *έρυσι^ο* : *έρυθρός*, *κυδι^ο* : *κυδρός*, *λαθι^ο* : *λάθρη*, *πυκι^ο* : *πυκνός*, perhaps *ἀργι^ο* : *ἀργός* (if one accepts Wackernagel's idea of a dissimilation from **argró-*), and cf. also *δαῖφρων* < **d̥ns-ĩ*^ο beside Ved. *dasrá-* 'capable, skilled' < **d̥ns-ró-*. In all cases where more than one ablaut variant exists, the first member in *-ι-* has a zero grade root: *λαθι-*, *πυκι-*, *δαῖ-*, *έρυσι-*, just like the corresponding adjectives.

112 In Van Beek 2013, section 5.3 I have argued that *κατερός* ~ *καρτερός* corresponds directly to Ved. *śithirá-* 'loose'. If this is correct, the root did have a final laryngeal, but its form was **kreth₂*- in view of the *-ε-* in Ion.-Att. *καρτερός*. It is not possible to start from **kreth₂*- and assume a reshaping of **καρταρός* to *καρτερός* (for instance after *ιερός*, which was close in meaning), as Cretan has *καρτερος* beside *ιαρος*.

113 The only clearly Homeric case mentioned by Lamberterie is *ἑταῖρος* 'companion', which he views as a backformation from *ἑταίρη*. Here, however, metrical pressure may have been at work, since the older form of the masculine seems to be *ἑταρος*. Moreover, it remains unclear whether an older athematic feminine ever existed.

114 See Risch (1974: 219) and the table in Meissner (2006: 19) for a few more uncertain items.

TABLE 11 Greek 'Caland' first members in -i- compared with related forms

First compound member	Related formations
ἀργι-κέραυνος, -ποδες (Hom.)	°αργής 'bright', ἀργός 'swift; white'
δαΐ-φρων 'clever' (Hom.) ¹¹⁵	δήνεα 'wiles', ἀδηνής, πολυδήνης
καλλι-γύναϊκα (Hom.)	κάλλος 'beauty', περικαλλής
κυδι-άνειρα (Hom.)	κυδρός 'stately', κῦδος 'glory', ἐρικυδής
λαθι-κηδής (Hom.)	λάθρα adv. 'secretly', Hom. λάθρη
πυκι-μήδης (Hom.)	πυκνός, πυκινός 'close; sharp-witted'
ῥά-θυμος 'light-hearted' (Att.) ¹¹⁶	ῥεῖα (< *ῥήα) 'easily'
ἔρυσί-πελας ¹¹⁷ (Hp.+)	ἔρυθρός 'red'
θερσι-επής (B.) ¹¹⁸	Aeol. θέρσος; names in °θέρσης (Hom.+)
PNs Κρατι-, Καρτι- (post-Hom.) ¹¹⁹	κρατερός, καρτερός 'violent, firm'

Several examples suggest that the basis for deriving first compound members in -i° has been extended to include s-stems, both abstract nouns and second compound members. The relic first member θερσι° (retaining the e-grade) seems to have been formed beside θέρσος (the older form of θάρσος) and °θέρσης.¹²⁰ Likewise, καλλι° with its geminate mirrors not the simplex κάλλος, but the noun κάλλος and compounds in °καλλής, and we may also compare ἀργι° : °αργής and κυδι° : °κυδής.

Another indication that Caland's replacement rule had ceased to be operative is the use of κρατερο° as a first compound member, instead of the outcome of *κῤῥτι° or, for that matter, unattested *κρατυ°. ¹²¹ This brings us back to the origins of κραται°. Interestingly, as remarked by Meissner (2006: 18), κραται° beside

115 From *d̥ps-i-.

116 From *urāhi- beside adv. *urāha, see Wackernagel (1897); ῥήϊδος (already Homeric) may also be an original compound with first member *urāhi-, as I argue in Van Beek 2020.

117 Name of the skin disease *erysipelas*; cf. perhaps also ἔρυσίβη 'rust, red blight'. Note the unproductive assibilation of /t^h/ (for which cf. Myc. *ko-ri-si-jo* /Korinsios/ 'from Corinth').

118 The use in appellatives is post-Homeric, but the same first member is already attested in PNs such as Θερσίλοχος (Hom.+) and perhaps also in Θερσίτης (see section 2.3.1).

119 Meissner (1998: 244–246) claims that names with Κρατι-, Καρτι- are late, analogical formations.

120 Contrast Meissner's view (2006: 22) that θερσι- might be an archaism to be compared with Av. *darši-*.

121 Note that adjectives in -ύς do not change their shape when appearing as a first compound member: cf. e.g. βαρύκτυπος, βαθυδίνης, θρασυκάρδιος.

κρατερός is the only instance in Homer where adjectival -ρο- is not replaced by -ι° in a first compound member. Is it possible that κραται° somehow reflects **kṛti*°?

Let us first reconsider the existing opinions on the origin of -αι° in κραται°. Meissner (2006: 62), citing γεραῖός ‘old’ beside the comparative γεραίτερος as a parallel, argued that κραται° is a remodeling of κραταιο°. ¹²² This is unlikely: it remains unclear why the thematic vowel would be dropped; the assumed influence of γεραῖός on κραταιός lacks a clear motivation; and γεραίτερος is not a compound but a comparative. Reconstructing a pre-form **kṛth₂i*° does not really help: between two consonants, PIE **-h₂i-* is expected to yield -i- rather than -αι- (cf. Nagy 1999: 86–87 with n. 5).

Nagy therefore assumed that κραται° arose within Greek as a crossover of the adverb **kṛt-a* (> κάρτα) and the inherited first member **kṛti*°. He follows a suggestion by Nussbaum that adverbs in -α could also appear in place of a first member in -ι°, as in the names Ἀλκίθοος (*Il.* 12.93) and Ἀλκαμένης (Bechtel 1917: 35) beside ἀλκίφρων. Indeed, a first member Κρατι° is also found in personal names, but one would have to assume that the adverb **kṛta* could be used as the first member of a compound, and that it was then contaminated with **kṛti*°. This is not impossible, but difficult to substantiate.

Although the existence of κάρτα lends some support to this scenario, it remains difficult to indicate a motive for creating **kṛtai*°. Why not simply retain **kṛti*° if this already existed anyway? Turning around our perspective, if we were to assume that **kṛtai*° is old, a motivation for its retention is readily available. In Epic Greek, κραται° functions as an allomorph of κρατερο°, as is clearly illustrated by personal names with Κραται° corresponding to noun phrases with κρατερός (cf. Lamberterie 1990: 337):

- Κραταιμένης (Th., inscr.)¹²³ ~ Hom. κρατερόν μένος;
- Κραταίβιος (inscr. Delos)¹²⁴ ~ Hom. κρατερήφι βίηφι.

Another crucial form is καρταίποδ-, attested both in Pindar (qualifying a bull in *Ol.* 13.81) and in Cretan inscriptions (in the meaning ‘cattle’). Its variant καρταίποδες ‘with strong feet’ appears as an epithet of ἡμίονοι ‘mules’ in the

¹²² See also Meissner (1998: 244–246).

¹²³ The oldest attestation is the name of an Achaean victor in Olympia (*SEG* 22.345, appr. 600 BCE). Further attested (mostly late) in Κραταιμένου *SEG* 19.108 1.117 (Attica, cf. *SEG* 23.124.2), Κραταιμένης *IG* v.1 127.4 and 211 11.34 (Laconian), also *IG* v.2 419.8 (Arcadian, 2nd c.), Εὔδημος Κραταιμένου Ἐρετριεύς *IG* xii.9 91.4 (Euboea). Cf. also Καρταίμενη[ς], *IG* xii (Supp.) 312 111.31 (Tenos, Ionic Cyclades, 2nd c.).

¹²⁴ Κραταίβιος *IG* xi.2 287 A.146 *passim* (Delos). The form Καρταίβιος (with -αρ-) is also attested as the name of a Cretan in Miletus (Bechtel 1917: 256).

Herodotean *Life* of Homer.¹²⁵ This must surely be compared with the Homeric epithet *κρατερώνυξ*, which (with one exception) qualifies horses or mules.¹²⁶ In other words, *κραταίποδες* “whose πόδες are *κρατεροί*” is parallel to *κρατερώνυξ* “whose ὄνυχες are *κρατεροί*”.

What determined the choice between *κραται°* and *κρατερο°*? It is true that *κραται°* also occurs in non-dactylic meters, but I think the underlying principle is best sought within the epic language. The only two Homeric compounds with a first member *κραται°* are the *hapax eiremena* *κραταιγύαλοι* and *κραταίπεδον*, whose second member has a light first syllable starting with a single consonant. The same applies to the post-Homeric personal names *Κραταιμένης* and *Κραταίβιος*, which may well be of epic origin, and to post-Homeric *κραταίποδες*. In this phonological context, *κρατερο°* and *καρτερο°* were both excluded for metrical reasons in Epic Greek. We do find *κρατερο°* before second members starting with two consonants or a vowel-initial heavy syllable (*κρατερόφρων*, *κρατερώνυξ*), while *καρτερο°* was used if the second member started with a heavy syllable with a single initial consonant (cf. *καρτερόθυμος*).¹²⁷

If the alternation of **kr̥tai-* with **kr̥tero-* as first compound members represents something old and structural, then the same must hold for **kr̥tai-* itself. But how old is this form? Lamberterie (1990: 343) proposes the following explanation:

Dans les composés, le système de Caland fait attendre un premier membre *καρτι-*, *κρατι-*, attesté effectivement dans l'onomastique; une fois constitué l'adjectif *κραταίος* (...), on conçoit qu'il ait pu fournir aux aèdes un modèle pour faire entrer dans l'hexamètre des formes amétriques comme **κρατίπεδος* ou **κρατιγύαλος*.

This is attractive, but I would prefer to view formulate the details slightly differently. An inherited first compound member **kr̥ti-* is expected on comparative grounds as a counterpart of **kr̥tero-*. In Epic Greek, it was problematic to use **kr̥ti-* before a single consonant followed by a light syllable. This may have initially been resolved with a metrical lengthening, **kr̥tipedo-* >> **kr̥tīpedo-*. At

125 *Vita Herodotea* 14.9.

126 The exception is *λύκοι κρατερώνυχες ἠδὲ λέοντες* (*Od.* 10.218), where it means ‘with fierce claws’.

127 In *κραταιρίνοιο* ‘hard-shelled’ (oracle in *Hdt.* 1.47, hexameter), the allomorph *κραται-* is used before a heavy syllable starting with a single consonant, but note that the prosodic behavior of initial *ῥ-* varies. The compound *κραταίλειως* ‘consisting of hard rock’ (*trag.*), containing *λάας* ‘stone’ as a second member, is a relatively recent formation (note the application of quantitative metathesis).

some point, **krti-* was for some reason (perhaps because it had become isolated) reshaped as **krtai-* under the influence of **krtaiuó-*, the pre-form of *κραταίος*.

In his immediately following remark, however, Lamberterie expresses his doubts about this explanation:

Il reste que l'existence de *κραταίπος* en Crète interdit de voir dans les composés en *κραται-* une création littéraire artificielle; ils ont bel et bien une réalité linguistique.

The Cretan word *κραταιποδ-* is indeed highly relevant, as it shows that compounds in **krtai-* existed before the vocalization of **r* in this dialect.¹²⁸ I would hesitate, however, to view *κραταιποδ-* as a compound of vernacular origin. On the face of it, it looks like a poetic form: an epithet which replaced or supplemented an older word for 'cattle' such as *τετραποδ-*. In fact, the Cretan form could show that a compound **krtai-pod-* (reflected in post-Homeric *κραταίποδες*) was created in an early form of the Greek poetic tradition, probably epic, and that it was borrowed thence into an early form of Cretan. One is tempted to think of an 'Achaean' relic form.

The question still remains how the compounds with *κραται-* relate to personal names with *Καρτι-* and *Κρατι-*, which at first sight may contain the expected outcome of **krti-*.¹²⁹ Meissner (1998: 244–245, cf. also *GEW* s.v. *κράτος*) objects to this idea that the attestations are not very early: one example possibly dates from the fifth century, and the rest is from the fourth century or younger. For this reason, he claims that these names could be innovations of the classical period, when first members in *-i-* enjoyed a certain productivity. Concerning the Homeric evidence, he views the absence of *καρτι-* ~ *κρατι-* in Homer as an argument against its antiquity.¹³⁰ However, this absence is not necessarily remarkable given that *κραται-* occurs only twice. It is also relevant that *Κρατερο-* ~ *Καρτερο-* is unattested as a first member in Ionic and Attic per-

128 For a critique of the assumption of liquid metathesis in Cretan, see chapter 3.

129 The evidence consists of *Κρατ-ερμος*, *Κρατ-ιπιδας*, *Κρατι-δημος*, *Καρτι-δαμας*, *Καρτι-νικος*, *Καρτι-σθενης* (cf. Bechtel 1917: 256). Of these names, *Καρτισθενης* is attested in Cyrene, while *Καρτινικος* and *Καρτιδαμας* are from Thera, and it is exactly in these two dialects that *αρ* is the regular reflex of **r*. *Κρατιδημος* is attested in Ionian territory (Erythrae). Obviously, *Κρατι-* may have the root shape of *κράτος*, or alternatively it may be an epism.

130 "das Fehlen von *κρατι-* bei Homer [ist] nicht auf metrische Gründe zurückführbar. (...) Ein *καρτι-* bzw. *κρατι-* wäre metrisch vielseitig verwendbar. Sein vollständiges Fehlen ist also auffällig." (Meissner 1998: 245).

sonal names. It therefore seems plausible that **krti-* once existed, whether or not the personal names with Κρατι- and Καρτι- directly reflect this form.¹³¹

Let us now return to the reconstruction of κραταιός. In view of its oxytone accentuation, a derivation with the unaccented all-purpose appurtenance suffix -ιο- can be excluded. Three other adjectives are of special interest as possible parallel formations: παλαιός ‘of the past’, γεραιός ‘old’, and δηναιός ‘long-lived’.¹³² Among these, δηναιός occupies a special position because it probably derives from a compound **dḡān-aiū-ó-* ‘(one) having a long life-span’, with the adverb δῆν as a first member.¹³³ On the other hand, the adjective παλαιός is already attested in Myc. *pa-ra-jo*, thus excluding a compound with *-aiū-.¹³⁴ Clearly, παλαιός is an adjectivization of the adverb πάλαι ‘in times before, for some time now’, which also occurs as the first member of compounds (e.g. παλαιγενής ‘born in the past’, παλαιφάτος ‘said/hit some time ago’). Later, παλαιός may have induced the creation of γεραιός.¹³⁵

Thus, κραταιός might either be a ‘genitival’ derivation like παλαιός, or a possessive compound like δηναιός. Concerning the former option, as remarked by

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- 131 In Epic Greek, the replacement of **krti-* by **krtero-* must have occurred before the vocalization of the syllabic liquids, which would have altered the metrical structure of **krti-*. There is no trace of καρτι- in Greek poetry.
- 132 Other words which contain final -αιό- are: ἀραιός ‘thin, slender’ (no etymology), βαιός ‘small, slight’ (no etymology), γηραιός (probably a younger variant of γεραιός), ἀλαιός (Hsch., a by-form of ἤλεός ‘crazed’), λαιός ‘left’ = Lat. *laevus* etc. (an old formation < PIE **leh₂i-uo-*, cf. δεξιός ‘on the right’), σκαιός ‘left, western’ = Lat. *scaevus* (likewise old, < PIE **skeh₂i-uo-*). One may also perhaps compare the ethnic Ἀχαιοί, on which see Nagy (1999: 349–354). The common classical adjective ἀρχαίος ‘ancient’ does not occur in early epic, except in Hes. *fr.* 322. As the accent shows, this form was derived productively from the noun ἀρχή ‘beginning’; its suffix goes back to PGr. *-i(i)o-.
- 133 As recognized by DELG (s.v. δῆν), there is no reason to doubt this reconstruction of δηναιός, because its meaning is consistently ‘long-lived’ in both Homer and Aeschylus. Frisk (*GEW* s.v. δῆν) has issues with this etymology, presumably because of the use of an adverb as a first member. He thinks that δηναιός could be an artificial formation influenced by παλαιός and ἀρχαίος (“vielleicht sogar nach ihrem Vorbild direkt aus δῆν erweitert sein”), but ἀρχαίος cannot be compared in view of its different accentuation. Note that Homer uses δῆν predicatively in nominal sentences (e.g. οὐδέ γὰρ ... δῆν ἦν ‘for he [Lycurgus] did not live long’, *Il.* 6.130–131).
- 134 As Chadwick (1976) has shown, παλαιός originally referred to the recent past: “the length of a period does not normally extend beyond a lifetime, and may be much shorter”. In the Mycenaean tablets, *pa-ra-jo* qualifies wine and is used in opposition to *ne-wo* ‘young’.
- 135 Nothing excludes that γεραιός (30× Hom.) is also an old formation. An adverb **gerai* is not attested, but it would not be unthinkable that the precursor of γεραιός was somehow reshaped under the influence of παλαιός, in view of their close meanings. Alternatively, one might consider a compound PGr. **ger-aiū-ó-* ‘belonging to an old lifetime / generation’.

Nagy (1999: 353),¹³⁶ κραται- (unlike πάλαι) is not found as a simplex. Moreover, even if we were to explain κραταιός from a proportion based on κραται- beside παλαι- in compounds (cf. *GEW* s.v. κράτος), the form κραται- itself remains in need of an explanation. The best solution is, therefore, to assume that κραται- was reshaped from metrically lengthened **krti-* under the influence of an already existing κραταιός, perhaps aided by πάλαι beside παλαιός.

Most problems can be resolved by deriving κραταιός from a compound PGr. **krt-aiwó-* ‘having powerful vital force’, in which *-*aiwó-* continues the PIE *u*-stem **h₂ói-u*, **h₂éi-u-* (cf. Ved. *áyu(s)-* n. ‘life, lifetime, vital force’) or even the thematic derivative **h₂eímo-* reflected in Lat. *aevum* ‘lifetime, age’, Goth. *aiws* ‘id.’. Note that in Homer αἰών does not only mean ‘life, lifetime’, but is also used as an equivalent of μένος in the sense ‘vital force’ (cf. *LfgrE* s.v. αἰών), a sense which may also be attested for the Vedic cognate just cited. The first member of **krt-aiwó-* could be the bare root or, alternatively, a prevocalic variant of the ‘Caland’ allomorph **krti-* (with elision of *-i-*). This reconstruction receives support from the existence of traditional phrases κρατερόν μένος and κρατερή βίη and the corresponding personal names Κραταιμένης, Κραταίβιος.¹³⁷

5.2.12 Κράταιις and κραταιῖς

The enigmatic form κραταιῖς (PN Κράταιις) occurs twice in Homer, both times in the *Odyssey*. The first occasion is in the description of the sinner Sisyphus in the *Nekuia*:

ὁ μὲν σκηριπτόμενος χερσίν τε ποσίν τε
 λάαν ἄνω ὤθεσκε ποτὶ λόφον· ἀλλ’ ὅτε μέλλοι
 ἄκρον ὑπερβαλέειν, τότ’ ἀποστρέψασκε κραταιῖς·
 αὐτίς ἔπειτα πέδονδε κυλίνδετο λάας ἀναιδῆς.

Od. 11.595–598

136 A similar scenario had already been proposed in *DELG* (s.v. κράτος). I disagree with Nagy’s proposal to reconstruct κραταιός as the feminine of a compound **krtai-μi(H)-i(e)h₂* ‘having strong force’ (Gr. ἴς, Lat. *vis*). The pre-form would first have lost the laryngeal in its second member, and then removed its suffixal ablaut to yield **kratai-μiā*. This would, finally, have given rise to a secondary masculine form. Apart from the fact that assuming laryngeal loss in a compound is slightly *ad hoc*, the objections to the other two points are the same as for Risch’s derivation from the feminine of a *u*-stem adjective discussed above.

137 An objection to reconstructing a compound is that κραταιός has a motional feminine κραταιή, but there are other archaic-looking compounds in Homer with a motional feminine (cf. e.g. νύξ ἀβρότη). Furthermore, it cannot be excluded that κραταιός was reanalyzed as a simplex early on, as all other adjectives in -αἰός (παλαιός, γεραιός, λαιός, σκαῖός) were *simplicia*.

... he [Sisyphus] would brace himself with hands and feet, and thrust the stone up toward the crest of a hill, but as often as he was about to throw it over the top, [a] κραταιῖς would turn it back, and then the ruthless stone would come rolling down to the plain again.

In this episode, many commentators translate κραταιῖς as ‘overwhelming weight, preponderance’ (e.g. “das Übergewicht, seine Wucht”, Ameis-Hentze ad loc.). Editors like von der Mühlh and van Thiel print Κραταιῖς,¹³⁸ but personal names normally do not have oxytone accentuation. Moreover, a personal name Κράταιις, with retracted accent, is ascertained by the second attestation, when Odysseus is warned by Circe about the monstrous Scylla:

οὐδέ τις ἔστ' ἀλκή· φυγέειν κάρτιστον ἀπ' αὐτῆς.
 ἦν γὰρ δηθύνησθα κορυσσόμενος παρὰ πέτρῃ,
 δεῖδω μὴ σ' ἐξαύτις ἐφορμηθεῖσα κίχρησι
 τόσσησιν κεφαλῆσι, τόσους δ' ἐκ φώτας ἔληται.
 ἀλλὰ μάλα σφοδρῶς ἐλάαν, βωστρεῖν δὲ Κράταιιν,
 μητέρα τῆς Σκύλλης, ἣ μιν τέκε πῆμα βροτοῖσιν·
 ἣ μιν ἔπειτ' ἀποπαύσει ἐς ὕστερον ὀρμηθῆναι.

Od. 12.120–126

There is no resistance: you must flee from her with all your might.¹³⁹ For if you tarry arming yourself by the cliff, I fear that she will attack again and reach you with as many heads [as before], and catch as many men. No, you should row with all might, and call upon Crataeis, the mother of that Scylla, who bore her to be a bane to mortals. She will then keep her from leaping forth again.

Aristarchus held the opinion that lines 124–126 in this passage were later additions. However, the fact that line 124 contains both the *hapax* βωστρεῖν and the rare Κράταιιν strongly advises against athetizing it. Indeed, the idea has been mostly abandoned in more recent scholarship (see Heubeck, *Comm. Od.* ad loc.), but Merkelbach (1951) still argued that lines 125–126 (not 124) are late additions. Given that the two lines seem to contain general explanatory statements, this is a definite possibility. In fact, in view of the preceding μάλα σφοδρῶς ἐλάαν

138 Cf. also the comment by Heubeck in *Comm. Od.*, ad loc.: “[W]e would expect to find a personal subject for ἀποστρέψασκε, e.g. a mythical figure Κραταιῖς, homonymous with the mother of Scylla.”

139 For this translation, see the discussion of the superlative κάρτιστον above (section 5.2.7).

‘you should row very quickly’, the two lines bring up a question: why would Odysseus and his team have to row so quickly if they can also call upon Scylla’s mother to restrain her daughter?¹⁴⁰ In any case, it seems best to retain at least line 124 as authentic.

The correct morphological analysis of *κραταιῖς* and *Κράταιῖς* has also yielded problems from antiquity onwards; see Lamberterie (1990: 340–343) for a clear summary of the issues. The following proposals are insufficient:

- Aristarchus analyzed *κραταιῖς* as an adverb in *-ις*. This cannot be correct, as the transitive verb *ἀποστρέψασκε* ‘pushed back (repeatedly)’ (*Od.* 11.597) is in need of a subject, and the only candidate to fulfill this role is precisely *κραταιῖς*.
- Chantraine (*DELG*) analyzed *κραταιῖς* as an adjective: an anomalous feminine of *κραταιός* which in his view qualifies *λᾶας* ‘stone’ in the next line. For the formation, he compared the Homeric feminine *θοῦρις*, belonging to *θοῦρος* ‘fierce’. However, as Lamberterie (l.c.) remarks, *λᾶας* is always masculine in Homer.
- The idea of an irregular elision in an underlying *κραται’ ἴς* cannot be maintained either, in view of the long *-η* as well as the initial digamma of *ἴς* ‘force’. Lamberterie’s proposal (l.c.) to reconstruct a noun phrase **κραταιφᾶ φῖς*, which would have developed to *κραταιῖς* by haplology, remains pure speculation.
- Nagy (1999: 349–350) analyzed *κραταιῖς* as a possessive compound **κραταιφῖς* “whose force has *κράτος*”, which would make sense from a semantic point of view.¹⁴¹ However, the phonological problems remain. If the second member was indeed *ἴς* ‘force’, with a long vowel from PIE **μῖH-*, this would be contradicted by the accentuation of the name *Κράταιῖς*, which presupposes a short final syllable.¹⁴² It would be unmotivated to assume a secondary shortening of the **ῖ*.

140 Given the new interpretation proposed for *φυγέειν κάρτιστον* ‘flee with all your might’ (section 5.2.7), it would be attractive to view *Κράταιῖς* as a personified force which grants impetus to the boat, just like *κραταιῖς* in *Od.* 11.597 is a force which accelerates a stone. Therefore, the idea that *Κράταιῖς* was Scylla’s mother (lines 125–126) could conceivably be due to a post-Homeric reinterpretation of the passage; the lines may have been added after the meaning of the word (and name) had been forgotten.

141 In a number of Homeric instances, *ἴς* refers to the impetus of natural forces (wind, river). In my view, a translation “whose force is *κρατερός*” would be preferable: as we have seen, *κραται-* functions as a relic allomorph of *κρατερός*.

142 In fact, all analyses of the form as a compound (or noun phrase) with *ἴς* ‘force’ suffer from the same problem.

As was already seen by Wackernagel (1914: 111), the most natural analysis of *κραταιῖς* ~ *Κράταιις* is to view it as a feminine substantivization of the type *νυκτερίς* ‘bat’ < “(creature) of the night”.¹⁴³ As we have seen, the context in which *κραταιῖς* occurs suggests that it means something like ‘overwhelming force’. Nagy objects to Wackernagel’s analysis that the adjectives corresponding to *νυκτερίς* and *ήμερίς* ‘cultivated vine’ (*νύκτερος* ‘nightly’ and *ήμερος* ‘tame, cultivated’) retain their feminine in *-ος*, whereas *κραταιός* has a feminine in *-ή*. However, I fail to see why the possibility to derive a *substantivization* in *-ίδ-* would be affected by the presence or absence of explicit feminine marking in the adjective, as *-ίδ-* is a derivational suffix making substantivizations, not a flexional suffix creating feminine forms of an adjective.¹⁴⁴ We may therefore conclude that *κραταιῖς* was derived directly from *κραταιός*, and that both forms reflect a pre-form with *ʀ.

5.3 Conclusions on the Vocalization of *ʀ

Although various proposals for the etymology of *κρατύς* and *καρτερός* have been made, we are clearly dealing with a homogeneous group of words, *pace* Benveniste (1969). The lexical meanings of the root are ‘powerful, overwhelming’ and ‘steadfast, firm’, and we have seen possibilities to connect these by semantic developments. The original full grade was **kret-* (cf. Ion. *κρέσσω*), and there is no convincing evidence for positing a variant **kert-*. This means that *καρτερός* and *κάρτα* show a regular reflex of the zero grade, and that the reflex of *κρατύς* must be analogical after the full grade **kret-*, as in other *u*-stem adjectives, by the scenario discussed in chapter 4.

Both adjectives **krtú-* and **krtéró-* must be reconstructed for Proto-Greek. A secondary creation of **krtú-* > *κρατύς* would be difficult to justify in view of the unproductive status of this category in Greek. On the other hand, **krtéró-* must also be old because this form is reflected in three different dialect groups. Early on, possibly already in Proto-Greek, it underwent a semantic development to ‘persevering, steadfast’, and was thereby dissociated from forms like **krétos* ‘might; power’ and **krtá* ‘vehemently’. To be sure, the original semantic

143 In Van Beek 2013, I presented this solution as originating with Nagy (1999: 349), without knowing that Wackernagel had made the same proposal a century before. Nagy does not refer to Wackernagel either.

144 Moreover, if the analysis of *κραταιός* as an original compound is correct (see the previous section), this problem disappears.

differences remain difficult to reconstruct, but it is plausible that a nuance between **kḗteró-* and **kḗtú-* existed early on.

Our analysis of the derivational history of forms with *κρατ-* and *καρτ-* has corroborated the conclusions reached in previous chapters. Starting from *κρατύς*, the analogical zero grade reflex was introduced in *κράτιστος*, *κράτος* (whence *-κρατής*) and the stative verb *κρατέω*. None of these forms can therefore be used as evidence for the regular vocalization of **ḡ*. Itself, *κρατύς* was retained only in the name-epithet formula $|\text{H}$ *κρατύς Ἀργεΐφόντης* and was apparently eliminated relatively early (though after the splitting up of Proto-Ionic). In Epic Greek, the role of *κρατύς* was taken over by *καρτερός*. It is possible to view *καρτερός* as a cross-over between *κρατύς* and the older form **kḗteró-* in the epic tradition.

Once the doublet *καρτερός* ~ *καρτερός* existed, analogies within Epic Greek could lead to the creation of further doublet forms: *κάρτος* (beside *κράτος*), *κάρτιστος* (beside *κράτιστος*); *καρτύνω* (beside *κρατύνω*). These forms are artificial in the sense that they arose by inner-epic analogies. Classical prose did not develop such by-forms: it only has *καρτερός* (whence *καρτερέω*), *κράτος*, *κράτιστος*, and *κρατύνω*.

The epic forms *κραται-*, *κραταιός* and *κραταιῖς* also reflect a pre-form with **ḡ*. Since it is difficult to account for their root shape as analogical, they seem to contradict the conclusion reached on the basis of *καρτερός* and *κάρτα*. However, we must also take into account that *κραται-*, *κραταιός* and *κραταιῖς* are found mainly in Epic Greek and occasionally in later poetry. Moreover, using these forms in hexameter verse entailed a tautosyllabic scansion of *muta cum liquida*, which is relatively rare in Homer. In the next chapter, I will deal with these issues in more detail, and propose that the reflex *-ρα-* < **ḡ* in these and other forms evolved not in a vernacular dialect, but in the epic tradition. This means that *καρτερός* and *κάρτα* are the only formations belonging to this root to display the regular vocalization of **ḡ* in Ionic-Attic.